



**Final Programmatic
Environmental Impact Statement
For The Columbia River Water
Management Program
Under Chapter 90.90 RCW**

**Volume II
(Comments and Responses)**

February 15, 2007
Washington State Department of Ecology
Ecology Publication # 07-11-009

COMMENTS AND RESPONSES

The public comment period on the Draft EIS was held from October 5 to November 20, 2006. The comment period was extended to November 22, 2006. All of the written comments are reproduced and included in this volume of the Final EIS. To save space, the comments have been reduced to allow two pages to be reproduced on one page. Responses to each comment letter follow the reproduced letter.

Ecology received several comments on some issues. Master Responses to those comments begin on page 5 of this volume and are referred to in the comment responses. Master Responses are provided for the following issues:

- Programmatic Environmental Impact Statements
- Future environmental review for off-channel storage proposals
- July/August mitigation period for Voluntary Regional Agreements
- General opposition to dams and reservoirs

List of Commenters

- Comment Letter No. 1—Confederated Tribes of the Umatilla Indian Reservation
- Comment Letter No. 2 – Yakama Nation – DNR
- Comment Letter No. 3 – Confederated Tribes of the Colville Indian Reservation
- Comment Letter No. 4 – Spokane Tribe
- Comment Letter No. 5 – Columbia River Inter-Tribal Fish Commission
- Comment Letter No. 6 – U.S. Dept. of the Interior – Bureau of Reclamation
- Comment Letter No. 7 – U.S. Dept. of the Interior – National Park Service
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- Comment Letter No. 9 – Washington Department of Fish and Wildlife
- Comment Letter No. 10 – Dept. of Archaeology & Historic Preservation
- Comment Letter No. 11 – DNR – Washington Natural Heritage Program
- Comment Letter No. 12 – Benton County Board of County Commissioners
- Comment Letter No. 13 – Klickitat County
- Comment Letter No. 14 – Stevens County Commissioners
- Comment Letter No. 15 – Walla Walla County
- Comment Letter No. 16 – City of Wenatchee
- Comment Letter No. 17 – PUD No. 1 of Chelan County
- Comment Letter No. 18 – Grant County PUD
- Comment Letter No. 19 – East Columbia Basin Irrigation District
- Comment Letter No. 20 – Kennewick Irrigation District
- Comment Letter No. 21 – American Rivers
- Comment Letter No. 22 – Center for Environmental Law and Policy
- Comment Letter No. 23 – Columbia Institute for Water Policy
- Comment Letter No. 24 – Columbia Riverkeeper
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- Comment Letter No. 26 – Sierra Club’s Upper Columbia River Group
- Comment Letter No. 27 – Center for Water Advocacy
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Comment Letter No. 29 – Washington State Bass Federation
Comment Letter No. 30 – Columbia-Snake River Irrigators Association
Comment Letter No. 31 – Northwest Pulp & Paper Association
Comment Letter No. 32 – Stevens County Farm Bureau
Comment Letter No. 33 – Ackerman, Laura/Larry Hampson
Comment Letter No. 34 – Albright, Nancy
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Comment Letter No. 53 – Jokela, Mary
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Comment Letter No. 57 – Marker, Paul
Comment Letter No. 58 – Michel, Devon (Saddle Mountain Ranches, Inc.)

Comment Letter No. 59 – Michel, Devon (Rocky Butte Land and Cattle, LLC)

Comment Letter No. 60 – Morrison, Harvey

Comment Letter No. 61 – Peterson, Mark

Comment Letter No. 62 – Peterson, Mark

Comment Letter No. 63 – Prchal, Joan

Comment Letter No. 64 – Soeldner, W. Thomas

Comment Letter No. 65 – Stewart, Don D.

Comment Letter No. 66 – Tansy, Kelly

Comment Letter No. 67 – Treecraft, Jan

Comment Letter No. 68 – Verret, Cathy

Comment Letter No. 69 – Vinsonhaler, Larry

Comment Letter No. 70 – Virgin, Helen, PhD

Comment Letter No. 71 – Wells, Lynn Fackenthall

Comment Letter No. 72 – Winkle, Barbara

Comment Letter No. 73 – Indecipherable Signature

Comment Letter No. 74 – Anonymous

Comment Letter No. 75 – (Indecipherable First Name) Johnson

Comment Letter No. 76 – Transcript Moses Lake Public Open House

Comment Letter No. 77 – Paneen Allen

Comment Letter No. 78 – Baron Allen

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Master Responses

A large number of comments were submitted in response to the Draft EIS. There were several themes that were repeated in numerous comments. These themes or issues are summarized below, with an accompanying response.

PROGRAMMATIC EIS PREPARATION

ISSUE: Numerous comments stated that the Management Program EIS was premature and that the analysis did not contain enough details to evaluate potential impacts. Other comments stated that by preparing a programmatic EIS, Ecology was piece-mealing the analysis of Management Program impacts.

RESPONSE: In accordance with the State Environmental Policy Act Rules (Chapter 197-11 WAC), Ecology has assessed the environmental impacts associated with implementation of the Columbia River Management Program (Management Program) 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 Management Program authorized under the Columbia River Water Management Act. These components include storage, conservation, Voluntary Regional Agreements, instream flow 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, Ecology 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 projects associated with the Management Program 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...”

Ecology has conducted the phased review of the Management Program consistent with WAC 197-11-060(5). At this time, broad policy concepts have been developed; these concepts will be further refined as Ecology 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 project or construction level evaluations. Similarly, mitigation measures are broadly framed to give an understanding of the potential range and effectiveness of mitigation. Site specific investigations will include development of specific mitigation measures that fall within the general categories of mitigation discussed in this document.

The EIS also evaluates three actions identified for early implementation, including drawdowns of Lake Roosevelt, a supplemental feed route to supply Potholes Reservoir, and the proposed Columbia-Snake River Irrigators Association (CSRIA) Voluntary Regional Agreement. These activities have been developed to a higher level of detail than the broad components of the program. These actions are called out separately in the document to indicate that they are at a different point in the planning process, and would be implemented at an earlier time than other identified components of the process. Ecology intends to proceed with these actions as soon as possible after completion of this EIS; however, both the Lake Roosevelt Drawdown project and the Supplemental Feed Route project will likely require subsequent SEPA threshold determinations and potential additional environmental review. Specific projects associated with the CSRIA VRA may require additional SEPA review. Therefore, these early action components are appropriately included in this Programmatic EIS, with an acknowledgement that additional evaluation will likely be conducted prior to implementation of project actions.

The Programmatic EIS acknowledges that additional site-specific SEPA evaluation and in some cases NEPA documentation will be conducted as part of specific project evaluations. Tables S.1 and S.2 summarize the anticipated schedule of subsequent environmental review for specific components of the Program. These evaluations would be appropriately characterized as “narrow” in accordance with WAC 197-11-060(5). Any additional or cumulative impacts associated with those facilities that have not currently been identified will be comprehensively discussed as part of those subsequent documents.

FUTURE STUDIES FOR OFF-CHANNEL RESERVOIR PROPOSALS

ISSUE: Several comments addressed potential impacts of the off-channel reservoir proposals being considered evaluated under a separate program by Ecology and Reclamation.

RESPONSE: In December 2004, the Bureau of Reclamation (Reclamation), the State of Washington, and the three Columbia Basin Irrigation Districts entered into a Memorandum of Understanding (MOU) that is intended to promote improved water management of the Columbia River. Under provision of Sections 6 of the MOU, Reclamation and the Department of Ecology (Ecology) are conducting an appraisal level study, of potential Columbia River mainstem off-channel storage sites. While the MOU predates passage of the Columbia River Water Management Act (Act) by the Washington State Legislature, the storage study is being funded through the new Columbia River Water Supply Development Account created by the Act. As such, the storage study is considered part of the storage component of the Columbia River Water Management Program described in Section 2.1.2.1 of this Programmatic Environmental Impact Statement (EIS). This EIS addresses the Columbia River Water Management Program as a whole, but is not intended to provide detailed information or analysis regarding potential new

storage sites. As discussed below, such detailed information would be provided in a future construction EIS specifically addressing the storage sites if the study proceeds beyond an appraisal level of evaluation.

The Department of Ecology is currently cooperating with the Bureau of Reclamation in the appraisal level study. Appraisal studies are brief preliminary investigations used to determine the desirability of proceeding to a more detailed feasibility study. Appraisal studies are authorized under the Federal Reclamation Law (Act of June 17, 1902, Stat. 388 and acts amendatory thereof or supplementary thereto). Appraisal studies generally rely on existing data and information to develop plans for meeting current and projected needs and problems in a planning area. In contrast, feasibility studies involve generation and collection of detailed, site specific data concerning a project and reasonable alternatives. Feasibility studies are usually integrated with National Environmental Policy Act (NEPA) compliance, potentially including development of a NEPA EIS.

As discussed in Section 2.1.2.1 of the EIS, eleven sites were originally considered in a Pre-Appraisal Report completed by Reclamation in December 2005. Reclamation and Ecology conducted screening of the 11 sites to eliminate sites that were considered to be located too far downstream in the Columbia River to be integrated into the operation of Reclamation's Columbia Basin Project, too small, or that represented a high risk of failure or excessive leakage. Six sites were eliminated based on the screening criteria. An additional two sites are located on the Colville Reservation and were dropped from further consideration at the request of the Confederation Tribes of the Colville Reservation. As a result, only four sites are being addressed in the appraisal study currently being undertaken by the Bureau of Reclamation. These four sites are Hawk Creek, Foster Creek, Sand Hollow, and Crab Creek. Information regarding the storage study and the identity of the four sites under consideration was presented in news release distributed to approximately 100 television and radio stations and daily and weekly newspapers serving central and eastern Washington.

The current appraisal study will not result in any site or sites being selected for construction of a storage facility. The development of a storage facility at any of the sites is not imminent; nor is it certain that additional studies will be performed on any of the sites beyond the current preliminary study. The results of the appraisal study will be used by Reclamation and Ecology to determine if additional studies of any of the sites are warranted and whether Congressional authorization will be sought to proceed to a feasibility study and EIS.

The appraisal study will evaluate whether any of the sites appear capable of safely providing a minimum of 1,000,000 acre-feet of active storage. The study will provide a preliminary assessment of the potential impacts of reservoir development on the built and natural environment, including impacts to cultural resources. During the Appraisal Study, the four sites will be further screened to identify one or two sites that may be suitable to move forward into a Feasibility Study and joint NEPA and State Environmental Policy Act (SEPA) EIS. The screening will involve evaluation of the sites for technical feasibility, preliminary costs, degree of potential benefits, as well as the extent of potential adverse environmental, socioeconomic and cultural resource impacts. Areas of concern for potential adverse cultural and environmental impacts include, but are not limited to:

- Native American trust assets and sacred sites;
- Archeological resources;
- National Historic Register eligible resources;
- Special-status aquatic and terrestrial species (for example, federal threatened and endangered species and state sensitive species);
- Special-status habitat (for example, shrub-steppe habitat) and conservation/preservation designated areas (for example, Wild and Scenic River Areas and federal or state wildlife refuges);
- Existing residential, agricultural, extractive industrial, and recreational land uses (displacement impacts); and
- Existing transportation, communication, and utility infrastructure.

In depth analysis of such impacts would be analyzed in an EIS, should the project proceed to a feasibility study. It is not possible to determine the exact timeline for a feasibility study, EIS, and construction because of the many unknown variables, including whether any sites warrant additional study, whether Congressional authorization and appropriation of funding can be secured. It is unlikely that any storage facility could be developed before 2020.

An estimate of the timing for the current appraisal study and the potential future feasibility study and EIS, should they be pursued, is as follows:

Future Review Action	Expected Date of Completion	Comments
Appraisal Report	March 2007	Four sites narrowed to one or two.
Feasibility Study	2008-2011	Congressional authorization required
NEPA EIS	2008-2011	Part of required Congressional authorization
SEPA EIS	2008-2011	Prepared concurrently with NEPA EIS

JULY/AUGUST MITIGATION ISSUE

ISSUE: Several comments were received stating that the mitigation periods outlined in the Management Program are not adequately protective of fish, and should not be limited to July/August for the Columbia River. Some commenters questioned what the basis was for choosing only that period. Some commenters also question the impact of this mitigation period on Biological Opinion flows.

RESPONSE: The July/August mitigation period for the mainstem Columbia River and April to August period for the mainstem Snake River were established by the legislature (RCW 90.90.030(2)(a) and (b)). The mitigation periods apply only to Voluntary Regional Agreements (VRAs) and not to other components of the Management Program. The legislature determined these time periods to be adequate for purposes of mitigating potential instream flow impacts of VRAs based on interpretation of information contained in the National Resources Council document, *Managing the Columbia River: Instream Flows, Water Withdrawals, and Salmon Survival*. Any changes to this mitigation period would require legislative action to amend the statute.

While the legislation constrains the period for mitigation associated with VRAs, there are no such constraints on the other components of the Management Program. The primary directives of the Columbia River Water Management Act, is for the Department of Ecology (Ecology) to:

“ . . . aggressively pursue the development of new water supplies to benefit both instream and out-of-stream uses (RCW 90.90.005).”

Ecology is pursuing a full range of options for augmenting instream resources including development of new storage, modification of existing storage, and conservation. Ecology intends to continue working with the Washington Department of Fish and Wildlife and the fisheries co-managers to determine the specific critical periods for when water supplies developed through the Management Program should be available for instream use. Such critical periods are not limited to July and August in the Columbia River and April through August in the Snake River.

Other protections from the potential impacts of VRAs on stream flows are provided in Sections 90.90.030(7) and 90.90.030(8) of the Water Management Act. These sections state that VRAs may not be interpreted or administered to preclude the processing of water right applications under the Water Code (Chapter 90.03 RCW) or the Groundwater Management Act (Chapter 90.44 RCW) (RCW) and that VRAs must not impair or diminish a valid water right or a habitat conservation plan approved for compliance with the Endangered Species Act (RCW 90.90.0303(8)).

OPPOSITION TO DAMS AND RESERVOIRS

ISSUE: A number of comment letters were received expressing opposition to storage projects in general, because of potential impacts to fish, water quality, upland habitat, and community/economic issues.

RESPONSE: In responding to the legislative directive contained in RCW 90.90.005(2) to “aggressively pursue development of new water supplies to benefit both in stream and out-of-stream use,” the Department of Ecology (Ecology) will consider storage to be one of the primary tools available to achieve that legislative objective. This position is consistent with a number of specific provisions of the legislation. For example, RCW 90.90.010 (2)(a) states that expenditures from the Columbia River Water Supply Development Account (Account):

“ . . . may be used to assess, plan, and develop new storage, [and] improve or alter operation of existing storage facilities”

RCW 90.90.010(2)(b) stipulates that two-thirds of the funds placed in the Account:

“ . . . shall be used to support the development of new storage facilities”

The legislation is clear that in assessing proposals for new storage facilities, Ecology must take into consideration the need for such facilities, the available alternative means of addressing those needs, and the potential negative impacts of such facilities. RCW 90.90.010(3)(a) states that funds from the Account may not be expended on construction of a new storage facility until Ecology evaluates:

- (i) Water uses to be served by the facility;
- (ii) The quantity of water necessary to meet those uses;
- (iii) The benefits and costs to the state of meeting those uses, including short-term and long-term economic, cultural, and environmental effects; and
- (iv) Alternative means of supplying water to meet those uses, including the costs of those alternatives and an analysis of the extent to which long-term water supply needs can be met using those alternatives.

Cultural, environmental and community (including socioeconomic) effects associated with a proposed storage facility are evaluated in a State Environmental Policy Act Environmental Impact Statement. Should there be significant federal involvement in a proposed storage facility, review under the National Environmental Policy Act would be required as well.

COMMENT LETTERS AND RESPONSES TO COMMENTS



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**Comments of the
Confederated Tribes of the Umatilla Indian Reservation
Department of Natural Resources**

**On the
Draft Programmatic Environmental Impact Statement for the
Columbia River Water Management Program**

Submitted in response to the Draft Programmatic EIS for the Columbia River Water Management Program, issued by Washington Dept. of Ecology, dated October 5, 2006. Ecology Publication Number 06-11-030

November 22, 2006

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11/22/2006 Comments of Conf. Tribes of the Umatilla Indian Reservation

I. Introduction and Overview

The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) submits the comments below on the Columbia River Water Management Program Draft Programmatic Environmental Impact Statement (DPEIS) which was issued October 5, 2006.

The CTUIR is a federally-recognized Tribal Government with rights, interests and vital economic assets located in the State of Washington subject to the 1855 Treaty between the United States and the tribes of the CTUIR (12 Stat. 945). Said Treaty was ratified by Congress March 8, 1859.

1-1 Rights, interests and vital economic assets of CTUIR attach to and include the Columbia River, the Snake River, the lower Yakima River, the Grande Ronde River, the Walla Walla River, the Tucannon River and the lands and resources in the Columbia River Basin to which the DPEIS applies.

The CTUIR is honored to be a part of Washington's Columbia River Water Management Program and looks forward to working closely with the Governor's office, Ecology and Department of Fish and Wildlife, and Washington's citizens to make the Program a success.

The comments below are submitted by CTUIR to provide constructive advice and recommendations for improvement, to identify key and critical areas of deficiency – especially regarding the rights, interests and vital economic interests of CTUIR – and to assist in making the Columbia River Water Management Program a success.

II. CTUIR Water Rights and the Programmatic EIS

1-2 The Programmatic DPEIS was prepared to generally address probable significant adverse and beneficial impacts associated with implementation of components of the Columbia River Water Management Program. To this end, and pursuant to RCW 90.03.380, Ecology may not approve a new water right or change of water right if detriment or injury to existing water rights would result. Nor may Ecology approve a Voluntary Regional Agreement (VRA) that impairs or diminishes valid water rights.

1-3 Tribal water rights, are deserving of protection because they arise under federal law, because of their early priority date, and because they cannot be forfeited by non-use. Necessarily, in order to ensure against injury to existing water rights and to address probable adverse impacts associated with implementing the Program, Ecology must present in the DPEIS an adequate explanation, analysis and estimation of impacts to existing water rights. Unfortunately, the DPEIS fails to present the extent of existing, but largely unadjudicated Tribal water rights.

1-4 The DEIS says little more than that the, "[c]reation of a tribal reservation may also imply the use of water for long-established aboriginal uses such as fishing and hunting." In

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1-4 section 3.4.1.1, at page 3-18, the DEIS states that there are no tribal in or out-of-stream flow requirements pursuant to the Tribal water right. The graph on the same page indicates that the quantity of the water right is "not specified - fishing and hunting in Usual and Accustomed places; practicably irrigable acres." And again, at 3-43, the DEIS states that Tribal water rights for fish is "largely unquantified". These brief statements in the DEIS indicate that Ecology needs to express to the public a broader understanding of Tribal water rights. This lack of information and analysis must be corrected.

It is a certainty that Tribes have water rights implied from existing fishing rights. That water right is necessary to protect the fishing right. The quantity of water Tribes have a right to is the amount of water necessary to protect the hunting and fishing rights of Tribes. Many cases have addressed Tribal in-stream flow water rights to satisfy rights reserved by treaty or under the Winter's Doctrine, including the following cases:

United States v. Winans, 198 U.S. 371 (1905); Colville Confederated

Tribes v. Walton, 647 F.2d 42 (9th Cir. 1981), cert. denied, 454 U.S.

1092 (1981)(Walton I); United States v. Adair, et. al., 478 F. Supp.

336 (D. Or. 1979), aff'd 723 F.2d 1394 (9th Cir. 1984), cert. denied sub

nom., Oregon v. United States, 467 U.S. 1252 (1984); Kittitas

Reclamation Dist. v. Sunnyside Valley Irr. Dist., 763 F.2d 1032 (9th

Cir. 1985), cert. denied, 474 U.S. 1032 (1985); Joint Board of Control

of the Flathead, Mission and Jocko Irr. Dist. v. United States, 832 F.2d

1127 (9th Cir. 1987); Wash. Dept. of Ecology v. Yakima Res. Irr. Dist.,

850 P.2d 1306 (Wash. 1993).

Whatever amount of water that is necessary to ensure the viability of the fishery in an amount that meets the Tribes' economic, cultural, subsistence and dietary needs is the amount of stream flow to which the Tribes are entitled. Nor is the water right limited to stream flows, for it extends to whatever is necessary to ensure the viability of the fishery, such as maximum temperatures.

The CTUIR treaty right to harvest fish implies a water right. The United States Supreme Court has held that, "[w]here water is necessary to fulfill the very purposes for which a federal reservation was created, it is reasonable to conclude, even in the face of Congress' express deference to state water law in other areas, that the United States intended to reserve the necessary water right." United States v. New Mexico, 438 U.S. 696 at 702 (1978).

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The water right extends to the exercise of off-reservation fishing rights and is to an amount necessary to protect the fishing right. In United States v. Adair, 478 F. Supp. 336 (D.C. Or. 1979) the court held that "Indians are... entitled to as much water on ... Reservation lands as they need to protect their hunting and fishing rights." Adair at 345. This water right was not limited to Reservation lands as the case involved the water right of the Klamath and Modoc Tribes over lands that were once their reservation lands, but were terminated in 1954. The treaty these tribes have granted them the exclusive right to take fish in the streams and lakes of the Reservation. That right ran with the lands regardless of who owned the land. Because the right to fish ran with the lands, so did the water right necessary to protect the right to fish. As the court wrote, "[i]f the preservation of these rights requires that the Marsh be maintained as wetlands and that the forest be maintained on a sustained-yield basis, then the Indians are entitled to whatever water is necessary to achieve those results." Adair at 346.

At the very least, the water right is to a quantity necessary to maintain a fishery. In Colville Confederated Tribes v. Walton, 647 F.2d 42 (9th Cir. 1981) the court held that the executive order establishing a reservation for the Colville Tribes necessarily included a reservation of a right to the quantity of water necessary to main a fishery at Omak Lake, despite the fact that there was no language in the executive order either granting an express right to fish nor a right to water, because the preservation of the tribe's access to fishing grounds was one of the primary purposes for which the Reservation was created. Walton at 48.

The water right includes a right that water temperatures be maintained at an appropriate level and a right that there be adequate instream flow to maintain the fishery. In United States v. Anderson, 591 F. Supp. 1 (E.D. Wash. 1982, overturned on other grounds) the court found that the Spokane Tribes had a right to water along the Chamokane Creek sufficient to preserve their fishing rights. Their fishing rights, as with the Colville Tribe, were implied from the purposes for which the Spokane Reservation was created. The water rights, which were implied from the implied fishing right, included both the right that the water not exceed a certain maximum temperature and that there be a minimum flow of water through the creek in order to ensure the viability of the fishery. Anderson at 5.

This water right attaches regardless of the impact it has on other competing uses. In each of the above-mentioned cases the courts held that a Tribal water right existed by implication from an either explicit or implied right to fish. The implied water right was to a quantity and quality sufficient to ensure protection of the right to fish, and consequently, to a viable fishery. Because of this, these Tribal water rights arise without regard to equities that may favor competing water uses. Cappaert v. United States, 426 U.S. 128 (1976).

The DPEIS must be amended to reflect the full scope of Tribal water rights. It must acknowledge that tribes not only have rights implied from existing rights to harvest fish, but that the right is capable of being quantified in so far as Ecology can establish

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1-7 [minimum stream flows and maximum temperatures necessary to ensure against the diminishment of existing fisheries and fish habitat. Finally, Ecology must acknowledge in the DPEIS that this right to minimum flows and maximum temperatures exists regardless of the impact it has on competing uses, that is to say, on other existing and potential future non-Tribal water rights as well as the creation of new storage facilities and other mitigation actions.

1-8 [The DPEIS must account for the CTUIR water rights in the Columbia River by acknowledging their existence. Ecology should strongly consider the ruling of the Montana Supreme Court that the state Department of Natural Resources and Conservation was prevented from acting on applications for non-Indian water rights and changes in points of diversion and place of use until such time as the Department had quantified Tribal reserved water rights. In the matter of the Application for Beneficial Water Use Permit, 278 Mont. 50; 923 P.2d 1703 (Mont. Sup. Ct. 1996) Ecology should consult with CTUIR to develop an estimation of the amount of water and the water quality necessary to protect and restore the fishery such that the Endangered Species Act does not limit it, and such that the fishery provides an acceptable level of harvest and sustainability consistent with the Tribe's treaty rights.

III. Purpose and Need of the Proposal and the Programmatic EIS

1-9 [The DPEIS does an adequate job of describing the needs, subject to Engrossed Second Substitute House Bill 2860, for new water development to address pending consumptive use water right applications, communities with unreliable or inadequate water supplies to meet current or future needs, and the inconveniences of "interruptible" water rights issued since 1980.

1-10 [The DPEIS should add an assessment of the opportunity to revise existing flood storage rules to reshape the flood water storage regime. This could provide a substantial amount of "new" water without the costs of large federal water project development and in a more timely way. This proposal should be analyzed as an early action alternative.

1-11 [The DPEIS does a wholly inadequate job of representing the mutual, second major goal of ESSHB 2860 – protection and recovery of Columbia Basin anadromous and resident native fisheries through restoration of critical instream flows. The DPEIS does not provide an adequate or substantive analysis of the need for flow protection, of the need for flow enhancement nor of the potential conflicts between new water development and allocation to instream flows or out-of-stream uses. This deficiency is reflected at a minimum in the following key areas:

- 1-12 [
- Disclosure and examination of the criticality of salmon and other native fish stocks, such as sturgeon and Pacific lamprey – from interpretation of the status that many stocks are extinct and most extant stocks are so critically impacted as to be listed under the Endangered Species Act as either threatened or endangered.

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1-13 [• Disclosure and examination of the direct causative factors for the past (1930's through the present) decimation of salmon and other stocks being water development, dam construction and operations and reshaping of the hydrograph.

1-14 [• Socio-economic analysis of the losses to Tribal economies and to the Washington economy from lack of commercial, recreational and tribal fisheries and of the potential economic, cultural and social contribution from robust fisheries.

1-15 [• "A major area of uncertainty in the Columbia River Basin is the relationship between environmental variables and the survivability of anadromous fish. . . . In particular, the relationship between flow levels in the Columbia River and salmon survival is not clear. It is known that lower survival rates and changes in salmon migratory behavior are expected when stream flows become critically low or when water temperatures become excessively high." DPEIS Pg. S-10.

1-16 [The DPEIS also does an inadequate job of representing the interests of Tribal Governments and their fishing constituencies, the current and potential economics of tribal and non-tribal fisheries and the balance that must be struck between out-of-stream development of new water sources and restoration and protection of instream flows. Tribal treaty rights to fish, and their inherent rights to stream flows and habitat conditions necessary to protect the fishing rights are not adequately described relative to providing water to satisfy tribal needs and rights.

1-17 [The DPEIS notes generally that "[t]he socioeconomic impacts of additional water supply would likely be positive for those who receive the water, but may have negative impacts for others at the local and regional level" (DEIS, Page S-4). Even in its general treatment of the issue, however, the DEIS does not sufficiently address the potential socioeconomic impacts on the CTUIR and other tribes from possible further damage to and degradation of the fishery resource and the habitat on which it depends that might result from the Program or individual projects.

1-18 [The DPEIS fails to adequately recognize and plan for, similar to the way it inadequately addresses the fishery needs and CTUIR water needs, the needs and requirements of the State of Oregon.

1-19 [Because the purpose and needs portions of the DPEIS do not describe the criticality of fish populations, the restored habitat conditions required by the fish, and the requirement that new water developed under this Program be provided to offset this need, the remaining chapters are substantively deficient in describing current conditions, developing alternatives, and documenting and analyzing impacts of program components and early actions. And, logically, those deficiencies preclude defining and analyzing the policy issues extant in implementing programs to restore stream flows needed to recover fish populations.

1-20 [The passage quoted above, from DPEIS Pg. S-10, places undue emphasis on "uncertainty" and a supposed lack of clarity. It is clear that dams on the mainstem Columbia and Snake Rivers, coupled with extensive water withdrawals from both the mainstem and the tributaries, have contributed significantly to an overall, substantial

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1-2 increase in the amount of time it takes for downstream migrating juvenile salmonids to reach the estuary and then the ocean. This increased travel time has forced such migrants to endure, for a longer period, increasingly hostile in-river conditions. These conditions are also created and aggravated by those same factors—dam passage mortality (direct and indirect, or delayed) and lower, slower flows and concurrent higher water temperatures and other habitat changes that promote increased predation on salmon (caused by the creation of reservoirs and impoundments and less water because of withdrawals). This extended travel time, under increasingly unnatural conditions, is contrary to the evolutionary history and development of anadromous fish in the Columbia River Basin.

1-2 The risk from further exacerbating this situation is one that salmon cannot afford. Additional out-of-stream diversions, at *any* time of the year, must be fully mitigated, and consistent with ESSHB 2860, additional water developed and provided permanently to restore instream flows. Recent data and other information, particularly that which has been derived, and continues to be developed, in the remand process for the ongoing litigation over the Biological Opinion for the Federal Columbia River Power System (FCRPS), indicates increased survival correlates with decreased travel time—and higher flows reduce travel time. The Columbia River Water Management Program must provide solid assurances that instream flows will not be diminished—not just in July and August, but throughout the year.

1-2 The National Research Council study and report highlighted the particularly harmful conditions that often prevailed in the later summer (specifically naming July and August) from lower flows and related higher temperatures. The CTUIR does not believe the Council's work suggested or implied that conditions were always satisfactory for the other ten months of the year, every year, and that unmitigated water withdrawals were therefore necessarily appropriate during those periods. As part of the repeated Biological Opinions for the FCRPS issued by NOAA Fisheries, seasonal flow targets have been established as desired mileposts to be achieved. Over a number of years, however, those targets have routinely not been met, most often in the summer but at other times of the year as well. Additional out-of-stream diversions should occur only when their negative impacts on fish are completely mitigated, regardless of when they occur.

1-2 The DEIS is unclear as to whether or not it will improve the likelihood of meeting current flow targets. It is similarly unclear as to how the Program would be reconciled with additional requirements for instream flows and related measures that may result from ongoing litigation over the FCRPS BiOp and/or the upper Snake River BiOp involving Bureau of Reclamation storage projects (*See* DEIS, Page S-7). CTUIR recommends the DPEIS move ahead of this unpredictable litigation and the gridlock in the Basin by promoting, quantifying and implementing instream flow protection and restoration as an inherent component of the Program

1-2 Ecology, in drafting the Programmatic EIS, must incorporate, or at least give serious consideration to, Tribal materials that bear on pertinent issues that it has not yet reviewed.

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1-2 ESSHB 2860 is intended to operate in a manner that ensures conservation and the instream flow needs of fish. It also requires Ecology to assess the short term and long term effects implementation of the Act has on cultural and the environmental resources. Section 1(1) of the Act states in part, "The legislature finds that a key priority of water resource management in the Columbia river basin is development of new water supplies that includes... conservation in order to meet... the instream flow needs of fish." To this end, Section 2(3)(a) prohibits funds being expended to develop new storage facilities until Ecology evaluates, among other things, the benefits and costs of water uses to be served by the facility, which includes short-term and long-term cultural and environmental effects.

1-2 Ecology must consider material from various sources, including Tribes, that it has not yet considered in drafting the DPEIS. Section 2(3)(b) of the Act states, "The department of ecology may rely on studies and information developed through compliance with other state and federal permit requirements and other sources." The usage of these other sources is to assist it in evaluating, in part, the instream flow needs of fish and the cultural and environmental costs of expending funds to develop new storage facilities. Section 5(1) of the act requires Ecology to work with tribal governments to develop a Columbia river water supply inventory and supply and demand forecast in order to, in part, support the development of new water supplies to protect instream flows. Pursuant to Section 5(1)(b)(ii) and (iv), that inventory must include estimates of the benefit to fish and other instream needs as well as environmental and cultural impacts. Section 6(1) requires Ecology to establish and maintain a Columbia river mainstem water resources information system, the purpose of which is to provide information necessary for effective mainstem water resource planning and management. Presumably, that effective planning and management includes the instream flow needs of fish, and the cultural and environmental impacts of any action taken under the Act. Section 6(2) requires Ecology, in order to accomplish this objective, to "use information compiled by existing ... and other available sources."

1-2 Unfortunately, neither the list of background materials used in preparing the Draft EIS, found at page 5, nor Chapter 7.0 entitled "references", include any Tribal materials. Most notably, there is no mention of Wy-kan-ush-mi Wa-kish-wit or any other materials developed and published by Columbia River Intertribal Fish Commission.

CTUIR encourages Ecology to consult and consider including in the DPEIS information from the following sources:

1-2 **Fish Passage Center, "2005 Annual Report," July 2006.** This report, like others before it, documents (among other things) failure to meet ESA flow targets; e.g.,

"The runoff volume for 2005 was approximately 74% of average at The Dalles Dam and 68% of average at Lower Granite Dam. This low runoff volume associated with 2005 resulted in two significant results: first, Biological Opinion seasonal flow targets of 85 Kcfs at Lower Granite Dam, 220 Kcfs at McNary Dam and 135 at Priest Rapids Dam were not met; and secondly, since flows were predicted to be below 85 Kcfs at Lower

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1-27 Granite Dam, the Biological Opinion spring spill did not occur at the transportation collector projects in the Snake River. Spill at Ice Harbor Dam occurs under any conditions according to the Biological Opinion." (P. 230)

CRITFC, 2006 River Operations Plan.

1-28 **Oregon & CRITFC, "The Oregon/CRITFC Proposal" or "Hydro Actions Matrix" (10/18/06).** The ESA BiOp remand process is subject to certain confidentiality limitations; however, Ecology should be able to obtain the proposal from Washington's representatives to the remand.

CRITFC, *Wy-Kan-Ush-Mi Wa-Kish-Wit (Spirit of the Salmon)* (1995)
(<http://www.critfc.org/text/trp.html>).

1-29 The DPEIS must define the needs of instream flow restoration and then, consistent with SEPA, analyze the methods and the impacts of those methods to get there. Ecology will find that in some places the arbitrary two thirds-to-one third standard of water for new out-of-stream water rights is inadequate to achieve instream flow restoration objectives. In those cases Ecology will find that a successful Program will depend upon the flexibility to put more water than a one part out of three from new storage into stream flow restoration. CTUIR is hopeful that Ecology will plan for that need in the next revision to the DPEIS.

IV. Proposal and Alternatives

1-30 The DPEIS does an adequate job of displaying, describing and linking programmatically the primary projects that will be analyzed to provide new water for consumptive uses. Section 2.1.2 illustrates the primary problem in Chapter 2 which then is carried forward throughout the remainder of the Chapter and of the document – the section identifies four primary needs in response to ESSHB 2860 for which the Program is to respond. It unfortunately omits the need of protecting and restoring instream flows for fish recovery and habitat restoration. ESSHB 2860 provides the following direction relative to stream flows:

Sec. 1 (1) The legislature finds that a key priority of water resource management in Columbia river basin is the development of new water supplies ...to meet the instream flow needs of fish."

Sec. 3 (ii) One third of active storage shall be available to augment instream flows..."

It is impossible for Ecology to carry out the Program without, at the start, planning to achieve stream flow restoration.

1-31 Adequate prioritization and analysis of projects to address instream flows needs and the impacts of projects upon instream flows, both requirements of the legislation¹, is missed

¹ Not to mention other requirements such as Tribal treaty rights and the Endangered Species Act

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1-31 throughout the remainder of the document because Chapter 2 of the DPEIS did not identify the instream flow need. This serious flaw and omission, arguably inconsistent with the requirements of Washington SEPA and certainly at odds with the requirements of the National Environmental Policy Act, must be remedied throughout the document.

1-32 Certainly, a successful Washington Columbia River Water Program is inherently contingent upon a fair, balanced treatment of the need to protect instream flows and provide a quantifiable amount and quality of water for stream flow restoration. Proper disclosure, assessment and analysis of such in the DPEIS are prerequisite. The DPEIS should be amended to reference an amount of water necessary to protect instream during all months, and the amount of water necessary to "develop" and return to instream flows in order to protect and restore the fishery and the potential sources for that water.

1-33 The list of potential impacts of Lake Roosevelt drawdown, additional storage development, conservation and all other Program components should include increased instream flows and increased ability to meet minimum mainstem Columbia and Snake river flow targets established by NOAA Fisheries. It should also reference increased ability to meet tribal instream flow water rights, protect CTUIR interests and restore the ability of CTUIR to exercise its treaty rights to fish.

1-34 It should be noted that Chapter 2 suggests, e.g. on page 2-3 under New Large Storage Facilities, that a new large storage project would benefit the proposed Walla Walla exchange project. Under the current planning and scoping of the exchange project alternative for the Walla Walla River, new mainstem Columbia or Snake river storage is not required and would probably not provide a benefit to the exchange project. In addition, Sec. 2.1.2.2 Pump Exchanges should note that the Walla Walla exchange proposes to exchange *Columbia River* water for Walla Walla River water.

1-35 Though the ESSHB 2860 indicates that impacts from the Voluntary Regional Agreements need only meet a no net loss standard on the Columbia River in July and August, and on the Snake River in April through August, both overwhelming science and controlling law indicate otherwise. Instream flows are critical in both rivers in every month of the year – not recognizing that fact has led to the current situation of dry rivers, or rivers with compromised flows and many salmon extinctions and population crashes. The DPEIS must provide a balanced analysis of the instream flow situation that reflects the science of the Columbia River Intertribal Fish Commission and its member tribes (CTUIR is included), the National Marine Fisheries Service (NOAA Fisheries), Oregon Department of Fish and Wildlife (ODFW) and Washington Department of Fish and Wildlife (WDFW). It is noted here that the NOAA Fisheries indicated to the Columbia Program Policy Advisory Group that instream flows are critical in each month and cannot sustain further depletion in at least April through August and that Fall Chinook, a critical species to Washington in the Hanford Reach are spawning in November and December and also cannot sustain further flow reductions or fluctuations.

1-36 CTUIR commends Ecology and the Washington Legislature for requiring the data collection and analysis – Inventory and Demand Forecasting – necessary to answer

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1-36 questions about current demand, use within water right constraints, future demand and the opportunities for reallocations. The DPEIS should specifically direct and schedule timeframes for metering of all diversions and a link between future development of "new" water to achievement of that objective.

Definitions and Alternatives for Program Implementation:

Ecology should incorporate the following alternatives into a revised PEIS:

- 1-37
1. Planning, providing for and analyzing the impacts of water volumes to achieve stream flows necessary to protect tribal water rights and restore fisheries
 2. Aggressively pursue storage options as an optional means to restore stream flows and provide water for future economic development.
 3. CTUIR agrees that Ecology should consider any conservation project, including those implemented prior to the date of the legislation. The amount of water conserved and provided for protection should be the amount conserved and funded by public funds.
 4. Ecology should reconsider disallowing inter-WRIA transfers as such transfers could provide the most benefits to instream flows, especially where a new downstream use is at distant from the conservation or addition of flow. Additionally, this could preclude implementation of the Walla Walla exchange which would transfer water from the Columbia River to the Walla Walla River Basin.

Policy Issues:

CTUIR recommends the following on policy choices:

- 1-38
1. Ecology should aggressively pursue storage projects.
 2. Ecology should use the best available science/methodology that provides the most return to instream flows.
 3. Ecology should fund projects that benefit instream flows and water quality only.
 4. Acquisition and transfer should, consistent with Trust Water Program, apply to any non-storage project.
 5. Ecology should not waive the instream water right until the Program, exemplified in a revised DPEIS, specifically plans to develop new water to achieve a quantified instream flow regime in the Columbia and Snake rivers.
 6. Ecology should aggressively pursue VRA's to implement instream flow restoration and protection.
 7. Ecology should process VRA's consistent with existing Rule.
 8. "No Net Negative Impact" should be defined so as to preclude withdrawal upstream from new water savings but allow withdrawal as far downstream as is measurable in order to maximize instream flow benefits.
 9. No comment on mains channel definition.
 10. Ecology should deny new water right applications if mitigation water is not readily available as part of the application.
 11. Ecology should group applicants by WRIA.

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- 1-8
12. Ecology should not use Program funds to mitigate for VRA applications unless a substantial instream flow benefit can be demonstrated.
 13. Exempt wells must be included to complete the inventory and are not precluded by the legislation.

V. Walla Walla Basin Project

The Walla Walla Basin Project is arguably one of the most popular stream flow/irrigation projects in Washington. CTUIR recommends the DPEIS include additional details on the technical mechanics of the proposed Walla Walla River stream flow enhancement project currently under study by the U.S. Army Corps of Engineers and the CTUIR. The project, developed after the successful Umatilla Basin Project in Oregon, is a potential model for achieving a successful Columbia River Program in Washington.

1-9 Technically, the Feasibility Study is assessing the options to achieve stream flow restoration in order to allow, under separate authority, actions to recover native fish. Flow restoration will be achieved either by construction of a new storage reservoir or of an exchange pump project that would provide Columbia River water to current, legitimate irrigation rights. Full, efficient restoration will occur by implementing one of these projects in conjunction with water rights acquisitions or lease from willing sellers, conservation and potentially other environmental projects.

The project, identical to the Columbia River Program, seeks to achieve two mutual objectives: 1) restore stream flows; 2) protect existing legitimate uses of out-of-stream water as an inherent part of the project and potentially provide for additional water for future development.

Columbia River Program support for and funding of the Walla Walla Project is very important to residents of the Walla Walla Basin, elected officials that represent the Basin and to the CTUIR. CTUIR appreciates Washington's investment in the restoration of stream flows, recovery of native fish, enhancement of CTUIR Treaty rights and the concurrent protection of irrigated agriculture in the Walla Walla River Basin.

1-40 CTUIR is concerned that ESSHB 2860 may negatively impact implementation/construction of the Walla Walla Project. For example, if a reservoir were constructed to restore stream flows it would not allocate two thirds of the project water to new water rights and one third to instream flows. Rather it would allocate most of the reservoir volume to existing irrigation in order to exchange that volume for a similar volume that would be left instream in the Walla Walla River to restore flows. An exchange with Columbia River water would work similarly. At a minimum we'd like to see a more robust analysis as part of consultation with CTUIR to determine whether there is a likely conflict between the Walla Walla Project and ESSHB 2860 and, if there is, what should be done to rectify it.

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VI. Water Quality and Bio-accumulative Toxins

- 1-41 Toxic chemicals, especially those that are bio-accumulative, are an existing problem in the Columbia River Basin (*see U.S. EPA Region 10, Columbia River Basin Fish Contaminant Survey, July, 2002.*). This study should be referenced and cited in addition to the USGS and state assessments as it is the most comprehensive in the Basin.
- 1-42 Future water development should address and consider the impacts it would have on existing and additional toxic contaminants in the sediments, in the water column and in fish and upon existing high water temperatures in summer and fall. Dissolved gases also need to be addressed as they are an extant problem at the tailraces of existing dams.
- VII. Voluntary Regional Agreements**
- 1-43 Voluntary Regional Agreements are a potential tool for reallocating existing water so that instream flow needs and out-of-stream needs can be better met. CTUIR believes Ecology should pursue new agreements if Ecology chooses to implement the Program in such a way that protection and restoration of instream flows is a co-equal objective in implementing the legislation and Program.
- 1-44 Most important at this point to CTUIR is that it be clearly stated in the DPEIS that VRA agreements may not interfere with or injure a valid water right. The legislation is clear on that point. CTUIR's water rights in the Columbia River and elsewhere may not be injured by VRA projects or any other project contemplated in the Program.
- 1-45 VRAs should only be processed ahead of prior competing applications if the impact on instream flows is mitigated or avoided *and* if there is a substantial contribution toward the restoration of instream flows over and above that of mitigation or avoidance. Said another way, VRA applications that are consistent with the spirit of the legislation – that new water be made available for development and that instream flows are protected and restored should be rewarded.
- 1-46 The scope of “No Negative Impact” should be defined as either the same pool or the same pool but only downstream of the project. To go beyond that scale at programmatic level is to lose the ability to measure and manage.
- 1-47 Ecology should spend Program funds only on projects that provide substantial improvements in instream flow in the mainstem Columbia and Snake rivers and in major tributaries such as the Walla Walla River. VRA proposals should be self-funded unless there is an extraordinary reason to expend public funds – such as inclusion of a substantial improvement in instream flows as part of the project.
- 1-48 CTUIR questions the adequacy or relevancy of the Columbia-Snake River draft VRA proposed payment of \$10 per acre foot to acquire new water or fund new projects but CTUIR does believe a substantially higher payment amount is warranted. The market value of water should be used to set this payment amount.

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- 1-49 Again, and as stated above, Ecology must in this DPEIS evaluate the months beyond July and August in the Columbia River and April through August in the Snake River during which critical flow shortages exist and when additional flow is needed to recover native fish.
- VIII. Cultural Resources**
- 1-50 Overall CTUIR appreciates the review and analysis of cultural resources. We have the following specific questions and suggestions:
- 1-51 **Page S-6: Cultural Resources**
COMMENT: Change the fourth bullet to read: “Effects to integrity of Traditional Cultural Properties (TCPs) through inundation or alteration of characteristics that make the areas TCPs.”
- 1-52 **Page S-7: S.3.1.6 Mitigation Measures**
Second sentence:
“Archaeological monitoring would be conducted during construction.”

COMMENT: This may not be sufficient to mitigate effects to historic properties. The mitigation measures cannot be defined until the effects and the sites are understood.
- 1-53 **Page S-8: S.3.2.1 Lake Roosevelt Drawdown**
COMMENT: Add another bullet addressing erosion.
- 1-54 **Page 3-80: 3.10.1 Legal Framework for Protection**
Paragraph 1, second sentence:
“Ecology has initiated the project review process for the Management Program with DAHP.”

COMMENT: Why haven't the affected Tribes been included in this review process?
- 1-55 Paragraph 2, first sentence:
“SEPA requires that cultural resources within a proposed project area be identified and that measures be proposed to reduce or control impacts on these resources.”

COMMENT: It would be helpful if the definitions of cultural resources in the different laws (SEPA, NHPA, etc.) were explained here.
- 1-56 Paragraph 3:
“Section 106 requires that the effects of an undertaking on historic properties within the project's Area of Potential Effects (APE) be considered...”

COMMENT: The summary of section 106 of the NHPA should be clarified. Additional details may be necessary.

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- 1-57 [**Page 3-81: 3.10.1 Legal Framework for Protection (continued)**
Paragraph 1:
 "Other federal laws that may apply..."
 COMMENT: The Archaeological Resources Protection Act (ARPA) should be included.
- 1-58 [**Page 3-81: 3.10.2 Overview of Cultural Resources in the Project Area**
Paragraph 3, first sentence:
 COMMENT: "[Add "Pre-contact"] archaeological resources could range in age from 11,000 BP (years before present) to AD 1800."
Paragraph 3, third sentence:
 "Historic materials may include structures or land alterations related to agriculture, transportation, homesteading, mining, logging, irrigation, orcharding, as well as historic cemeteries."
 COMMENT: Historic archaeological sites should also be included.
- 1-59 [**Table 3-23. Historic Properties at Columbia-Snake River Reservoir Sites**
 COMMENT: The word "historic properties" in third column is misleading because most of these sites have not been evaluated for their eligibility for inclusion in the National Register of Historic Places. Additionally, it is not clear whether the built environment and Traditional Cultural Properties are included in the count. They most likely are not included but should be.
- 1-60 [COMMENT: "275" historic properties in John Day Reservoir is incorrect if using Washington sites only.
- 1-61 [**Page 3-83: 3.10.2.3 EuroAmerican History of Region**
Paragraph 2, last sentence:
 COMMENT: All treaty rights retained should be added – hunting, gathering, grazing, and water.
- 1-62 [**Page 3-84: 3.10.2.4 Archaeological Resources**
Paragraph 6, last sentence:
 COMMENT: Fort Walla Walla was inundated by the backwaters of the McNary Dam (Garth, Thomas R. 1951 Archaeological Excavations at Fort Walla Walla. Region Four, National Park Service. San Francisco, California).
- 1-63 [**Page 3-85: 3.10.3 Cultural Significance of Rivers**
Paragraph 1, second sentence:
 COMMENTS: "Petroglyphs and pictographs, [delete "art", add "images"] carved..."
- 1-64 [**Page 3-86: Crab Creek Route Alternative**
Fourth sentence:

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- 1-64 ["Eleven other sites are presumed eligible for the NRHP."
 COMMENT: By whom are these sites presumed eligible? Does this mean the others are presumed not eligible?
- 1-65 [**Page 3-86: W20 Route Alternative**
First sentence:
 COMMENT: How old is the West Canal? Is it a historic resource?
- 1-66 [Third sentence:
 "Nine site are presumed eligible for the NRHP."
 COMMENT: By whom are these sites presumed eligible? Does this mean the others are presumed not eligible?
- 1-67 [**Page 3-86: Frenchman Hills Route Alternative**
Fourth sentence:
 "None of the sites are listed on the Washington Heritage Register or the NRHP, although two are presumed eligible for the NRHP."
 COMMENT: By whom are these sites presumed eligible? Does this mean the others are presumed not eligible?
- 1-68 [**Page 4-24: Long-term impacts**
 COMMENT: Changes to the landscape and rivers could affects TCPs. For example, blockage of migrating fish and eels will compromise the integrity of traditional fishing areas.
Paragraph 2:
 COMMENT: Long-term inundation could also introduce chemical changes to artifacts and features.
- 1-69 [Paragraph 2, thirteenth sentence:
 "With increased boat use, more sites could be accessible and become vulnerable to vandalism."
 COMMENT: Increased boat wakes will adversely affect archaeological sites through erosion.
- 1-70 [**Page 4-25: Mitigation**
Paragraph 2, second paragraph:
 "A Programmatic Agreement is appropriate when compliance with Section 106 of the NHPA is required due to federal involvement."
 COMMENT: Usually a PA is entered into to outline an alternative route to comply with Section 106.

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- 1-71 Paragraph 2, fourth sentence:
"Signatories to the PA would likely include Ecology, Reclamation, and DAHP."
COMMENT: Rather than say DAHP, it should read "the appropriate historic preservation office(s)."
- 1-72 Paragraph 3, second sentence:
COMMENT: These are not really mitigation measures; they should be considered advanced planning efforts – archaeological remote sensing, excavation of archaeological sites, documentation of historic structures, etc.
- 1-73 Paragraph 3, second sentence:
COMMENT: "...and archaeological monitoring during construction [add "and for the length of the project"]..."
- 1-74 Paragraph 3, third sentence:
COMMENT: "...and DAHP and a professional archaeologist [add "and Tribes"] would be contacted for further assessment..."
- 1-75 Paragraph 4:
COMMENT: Mitigation measures also need to 1) mitigate indirect effects through purchase and protection, 2) mitigate on-going effects of project, and 3) provide for off-site mitigation in consultation with affected cultural group(s) as appropriate.
- 1-76 Page 4-32: Table 4-2. Comparison of Impacts for Types of Storage Projects New Large Storage (>1 Million AF); second sentence:
COMMENT: "...and land development Mitigation measures [reword "should include development of" to "should be outlined in"] a Cultural Resources Management Plan and possibly a Programmatic Agreement [add "developed in consultation with Tribes"]."
- 1-77 Page 4-43: Long-term impacts
COMMENT: Existing systems may be historic properties and the effects to them would also need to be mitigated.
- 1-78 Page 4-47: Table 4-3. Comparison of Impacts for Types of Conservation Projects Municipal:
COMMENT: Add "unless there are modifications to historic infrastructure" at end of sentence.
- 1-79 Regional Agricultural Efficiency Improvements, first sentence:
COMMENT: "...which involve ground disturbing activities [add "or modifying historic structures"] have potential to impact cultural resources."

On-Farm Conservation:

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- 1-80 COMMENT: "...which involve ground disturbing activities [add "or modifying historic structures"] have the potential to impact cultural resources."
- 1-81 Industrial:
COMMENT: Add "unless there are modifications to historic infrastructure" at end of sentence.
- 1-82 Page 5-46: 5.4.1.9 Cultural Resources (Short-term Impacts, Long-term Impacts, Mitigation)
COMMENT: For them to say that the existing policy has no impacts on cultural resources is incorrect; granting water rights and determining flows have impacts on cultural resources.
- RECOMMENDATIONS:**
CTUIR wishes to ensure that the State of Washington complies with SEPA cultural resource provisions, state laws, and federal laws when applicable. More than likely the State of Washington will be required to apply for a Section 404 permit from the U.S. Army Corps of Engineers or will receive federal funding for this program which will trigger federal cultural resource laws.

Specifically, the CTUIR would like to ensure:
- Compliance with Section 106 of the National Historic Preservation Act is started early on including 1) consultation; 2) a determination of Area of Potential Effect (APE); 3) determinations of eligibility; 4) and determinations of effect.
 - A Cultural Resources Management Plan and/or Historic Properties Management Plan are written to include provisions for adaptive management and revision in the future.
 - Cultural Resources Inventory Surveys of the APE are completed.
 - Tribal Cultural Resources are addressed to include customary traditional uses, protection of the First Foods, Traditional Cultural Properties (TCP), sacred sites, and sacred landscapes.
 - A Monitoring Plan is developed to continue monitoring known sites (archaeological, rock image, TCP, and built environment sites) identified in the APE and periodic inventory and re-evaluations of sites.
 - Mitigation should be looked at from a holistic view such as access to sites and usual and accustomed areas and site protection. Below is a list of other types of mitigation.
 - Law Enforcement – personnel are trained and educated to enforce cultural resource laws.
 - Public Awareness to educate the community about cultural resources laws and illegal activities.
 - Discourage use of dispersed recreation sites
- 1-83

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- 1-83 [o Cultural Sensitivity Training should be required for State of Washington employees

IX. Shrub Steppe Habitat and CTUIR Rights and Interests

- 1-84 [Though there is little information in the DPEIS regarding the impacts to the shrub-steppe habitat types, it is important to recognize and for CTUIR to comment that the habitat is endangered and many of the species dependent upon it are threatened.

- 1-85 [Shrub-Steppe and Eastside interior grassland habitats were identified through the Northwest Power and Conservation Council's Subbasin Planning process as important focal habitats that were greatly reduced from historic levels, having a high level of threat from future development and a low level of existing protected status. The Columbia River Water Management Plan DIES considers impacts to these habitats from the perspective of a relatively narrow irrigation development corridor without due consideration of the large scale habitat conversion that could result from the expansion of irrigated agriculture associated with this development. This oversight significantly understates the magnitude of the total effect on wildlife. The DPEIS should correct that deficiency.

- 1-86 [CTUIR exercises hunting, gathering and fishing rights in these habitat types.

X. Consultation and Coordination with CTUIR

It is hoped that Ecology, the Washington legislature and the Governor's office will consult regularly and fully with the CTUIR. Our rights and interests require it and our commitment to work with Washington compels it.

Page 4-55 of the DEIS reads, "To avoid the potential cumulative impacts of the Management Program, Ecology will continue to coordinate with the local, state and federal agencies that manage resources in the area." It fails to include Tribes. Tribes need to be included in the consultation process, particularly with respect to potential cumulative impacts that negatively affect Tribal water rights, as well as fish and wildlife habitats in general.

- 1-87 [Adequate mitigation aside, CTUIR requests that Ecology consult formally, coordinate regularly and work side by side with CTUIR to implement the Program to its fullest potential.

The CTUIR has extensive legal and economic assets, treaty rights and other interests in the Columbia River. These holdings have been fully shared, if not over-appropriated with the rest of the State of Washington and the region. Salmon, sturgeon, eels – all of CTUIR's cultural and traditional resources have been pushed to the brink, and cannot be pushed any farther. They are already on the Endangered Species List – the next step is extinction.

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- 1-88 [The Tribal Government wishes to work cooperatively and effectively with Washington to restore the Columbia River, recover harvestable fish runs and build the State's agricultural economy. A healthy, robust agricultural economy can co-exist with a sustainable river of salmon and sturgeon and eels. That future is not likely to happen by repeating the past. We hope the Columbia River Water Management Program will plow new ground that replicates and improves upon our experience in the Umatilla River Basin in Oregon and the Walla Walla River Basin in Oregon and Washington. Success will be measured by the amount of stream flow restored, the numbers of salmon and other fish recovered, the amount of water irrigated and the number of acres in production. The CTUIR desires to engage in all aspects of Washington's development that will arise from the Program – including development of new irrigated agriculture and other consumptive water use development.

- 1-89 [CTUIR incorporates by this reference the formal comments from the CRITFC as part of these comments.

The Department of Natural Resources is happy to assist where it can. We appreciate the invitation to work with Washington and its residents on the Policy Advisory Group.

Thank you for the opportunity to comment on the DPEIS.

Sincerely,

Eric Quampt, Director
Department of Natural Resources

Cc: Chairman A. Washines, YIN; Chairman R. Miles, NPTEC; Chairman R. Suppa CTWSIO; Chairman M. Marchand, Conf. Tribes of the Colville Reservation; Chairman R. Sherwood, Spokane Tribe of Indians; Olney "JP" Patt, Jr. – CRITFC.

Comment Letter No. 1—Confederated Tribes of the Umatilla Indian Reservation

- 1-1. Comment noted.
- 1-2. Comment noted. Many federal reserved rights within Washington and other northwest states within the Columbia River basin, including those of the CTUIR, remain unadjudicated more than a century after signing of the treaties. Nevertheless, Ecology is required by RCW 90.03.290 and RCW 90.03.380 to consider the effects of any new permits and water right changes on existing water rights, whether quantified or not.
- 1-3. The EIS acknowledges the importance of the protection of Tribal water rights. See Section 3.6.1.3. An in-depth discussion of the extent of Tribal water rights is beyond the scope of the EIS. Although reserved rights are largely unquantified, the State recognizes those rights that were implied with the creation of the federal reservations within Washington. Ecology has selected among the policy alternatives presented in the revised Section 2.2 of the Final EIS to ensure that the program is managed to provide flow benefits from conservation and acquisition projects. Ecology will manage the Trust Water Rights and any mitigated permits to achieve at least no net loss to the mainstem Columbia River. Also, any new storage projects constructed using funds from the Water Supply Development Account would provide one-third of the water for instream purposes.
- 1-4. In Section 3.4.1.1, the EIS states that there are no *quantified* tribal in- or out-of-stream flow requirements. The importance of tribal water rights is emphasized in the first paragraph of Section 3.6.1.3. The text in Appendix G has been amended to reflect this comment.
- 1-5. The text in Section 3.6.1.3 has been amended in response to this comment.
- 1-6. The text in Section 3.6.1.3 has been amended in response to this comment.
- 1-7. The reference in the EIS to unquantified tribal water rights is to the fact the tribes' rights have not been quantified through a general stream adjudication or through negotiations with the state.
- 1-8. Comment noted. Tribal rights are acknowledged throughout the EIS, including in Table 3-3.
- 1-9. Comment noted.
- 1-10. The Flood Control Rule Curves for the Columbia River system establish the minimum reservoir elevation that must be maintained to prevent flood damage in the basin. Maintaining storage for flood control often requires releases of water to drawdown reservoirs. The rule curves are managed by the Corps of Engineers through the Coordinated Columbia River System and are outside the authority of Ecology or the State of Washington.
- 1-11. It is acknowledged that the provision of instream flows to meet the needs of fish is a goal of the Management Program. This need was established by the legislation and is summarized in Section 2.1.2.4 of the Final EIS. Section 2.1.2.4 also provides information on Ecology's proposal for flow augmentation.

- 1-12. It is acknowledged that salmon and other fish stocks are extremely important to the overall ecology of the Pacific Northwest. The decline of salmonids and other species is acknowledged in Section 3.1.1. Additional information on listed species is provided in Section 3.7.1.1. The purpose of the EIS is to provide a discussion of the potential impacts of the proposed program; historical information is provided to provide context for currently proposed actions.
- 1-13. It is not the purpose of the EIS to provide an exhaustive study of the causes of the decline of salmon and other Columbia River species; however, this issue is acknowledged in the document. The purpose of the EIS is to describe the potential impacts of the future actions resulting from implementing the Management Program. Section 3.1 describes the modifications to the Columbia River system and notes the decline of salmonids. Section 3.4.1 specifically describes the alterations to the Columbia River hydrograph.
- 1-14. Your comment is noted. The EIS has been revised where appropriate (see sections 3.2.1.1 Value of Goods and Services and 3.2.1.2 Jobs and Income) to point out the potential impacts to tribal welfare from the proposed actions.
- 1-15. Comment noted. The quotation from Section S.5 of the EIS is a summary of Section 1.3.1.3, the conclusions of the National Research Council report.
- 1-16. See the response to Comment 1-14.
- 1-17. Your comment has been acknowledged. Sections 4.1.1.1 Socioeconomics–Long-Term Impacts and 4.2.1.1 Socioeconomics–Long-Term Impacts of the EIS have been revised to describe how the proposed actions may impact the CTUIR and other tribes and their fishery resources.
- 1-18. The legislation requires Ecology to develop a water supply inventory and supply and demand forecast that will be updated. The initial reports were prepared in October 2006. The inventory and demand forecast include Oregon water rights. Oregon is a member of the Columbia River Policy Advisory Group and Ecology is coordinating with Oregon on Management Program implementation.
- 1-19. Comment noted. A new Section 2.1.2.4 has been added to the Final EIS. The sections describes Ecology’s program for augmenting streamflows.
- 1-20. The purpose of Section S.5 of the EIS is to document the areas of significant uncertainty and controversy that could be associated with the Management Program. As stated in Section S.5, one of those areas is the relationship between survivability and anadromous fish. While some of these relationships are understood, there are others, such as the relationship between flow levels and the survivability of salmon that are not well understood. As you note, the extended travel time through the river system has contributed to the decline of salmon. However, as pointed out in the National Resource Council’s report, the amount of flows needed for safe migration are not known.
- 1-21. See the Master Response regarding July and August mitigation.

- 1-22. Comment noted. See the Master Response regarding July and August mitigation.
- 1-23. Comment noted. The intent of the program is to manage a portfolio of Trust Water Rights acquired through a variety of projects and water right acquisitions. These Trust Water Rights will be managed to meet instream and out-of-stream needs. See also the responses to Comments 9-9 and 22-11.
- 1-24. Comment noted.
- 1-25. Ecology has considered material from a variety of sources in preparing the water supply inventory and supply and demand forecast (Ecology, 2006). That inventory was not complete when the Draft EIS was issued. Information on the inventory has been added to the Final EIS, Section 2.1.2.4 and is available on Ecology's web site. Future reports will include additional information and use refined methodologies.
- 1-26. Thank you for the input. Ecology has reviewed the CRITFC work products and incorporated them where appropriate into the Final EIS. See the response to CRITFC's Comment 5-5.
- 1-27. This report was reviewed and relevant information was incorporated into the Final EIS. See the response to Comment 5-5.
- 1-28. As noted in response to your Comment 1-26, this document has been reviewed and incorporated in the Final EIS where appropriate. The one-third to two-thirds allocation of water to stream flows was established by the legislation and cannot be altered by Ecology without legislative amendment.
- 1-29. The one-third to two-thirds allocation was established by the legislation and cannot be modified without further legislation action. See the Master Response regarding July/August mitigation.
- 1-30. Additional information on Ecology's program for instream flows has been added to Section 2.1.2.4 in the Final EIS. Ecology's approach will be an incremental one benefiting both instream and out-of-stream uses and users. The approach cannot significantly reduce or eliminate existing problems with ESA-listed species, but it can be managed to avoid causing new problems and modestly improve conditions for ESA-listed species.
- 1-31. See the response to Comment 1-30; additional information on instream flow protection has been added to the Final EIS text. The Management Program is not a federal action and does not involve federal funding; therefore, there is no requirement to analyze the Management Program under the National Environmental Policy Act. Subsequent project-specific analyses under NEPA will be conducted for those projects with a federal nexus.
- 1-32. See the response to your Comment 1-23.
- 1-33. Comment noted. The FEIS text has been revised regarding flow targets and tribal reserved rights in Surface Water Impact Sections 4.1.1.3 and 4.1.2.3 and 5.1.2.3.
- 1-34. Discussion of the Walla Walla pump exchange has been deleted from Section 2.1.2.2.

- 1-35. See the Master Response regarding the July/August mitigation standard for VRAs.
- 1-36. Comment noted. Ecology has developed a water metering project for the Columbia River Basin as part of the Water Information System. See Section 2.1.2.6.
- 1-37. Your recommendations regarding the Policy Alternatives considered in the EIS are noted. Since the Draft EIS was released, Ecology has worked with the Columbia River Policy Advisory Group and others to finalize the Policy Alternatives. Section 2.2, Section 2.3, and Chapter 6 have been revised with changes to the Policy Alternatives. See also the responses to Comments 9-8 through 9-19 for specific responses to the Policy Alternatives. In addition, Section 2.1.2.4 has been added to more clearly articulate the Management Program's approach to providing water for instream uses.
- RCW 90.90.010(2)(a) does not provide Ecology with authority to acquire and transfer water rights from one WRIA to another without legislative approval. Ecology could seek legislative approval when it appears that the program or the public interest would benefit from such transfers.
- 1-38. See the response to comment 1-37.
- 1-39. The Walla Walla Basin Project is undergoing a separate NEPA environmental review process by the Corps of Engineers. That document will describe the details of the proposed project, which is described at a conceptual level in this EIS on the Columbia River Water Management Program.
- 1-40. Ecology understands the concerns of the CTUIR regarding allocation of water from the Walla Walla Project. The one-third to two-thirds ratio was established by the enabling legislation and cannot be modified without legislative action. Ecology will work with the CTUIR to determine if it is appropriate to fund the Walla Walla Project under the Management Program or if other funding for that project should be sought.
- 1-41. A discussion of toxic chemical bioaccumulation in fish tissue in the Columbia Basin has been added to section 3.4.2 and a reference provided for the EPA study.
- 1-42. Section 4.1.1.3 summarizes the potential impacts that new large and small storage facilities could have on water temperature and dissolved gases. A detailed analysis of these impacts would be conducted on a project-level basis for the proposed storage facilities, and this has been clarified in Section 4.1.1.3 and 4.3. A discussion of the potential short-term impacts that storage facilities could have on releasing toxic contaminants into the water column and in aquatic species was added to Section 4.1.1.3 of the FEIS text.

- 1-43. Comment noted. Ecology has decided it will primarily pursue VRAs when approached by applicants. Ecology would more actively organize or match up water users when it benefits the program and is in the public interest.
- 1-44. Comment noted.
- 1-45. Ecology has elected to continue processing applications in accordance with its existing WAC 173-152. Applications would be taken “out of line” only when they meet the criteria for expedited process.
- 1-46. Ecology has selected the “Same pool and downstream” alternative. See section 6.2.8.
- 1-47. Ecology has elected to use the account funds to obtain both instream and out-of-stream benefits. See section 6.2.3. Ecology does not interpret RCW 90.90 to require all of the account funds for purposes other than new storage projects (acquisition, conservation, etc.) to be used exclusively for instream flow improvements.
- 1-48. The CSRIA VRA and \$10 per acre-foot mitigation fee would result in a payback to the Columbia River Basin Water Supply Development Account on the order of 50 years. During that time, the state will accrue benefits associated with 1) Trust Water Rights on tributary streams, 2) Trust Water Rights on the Columbia River mainstem between the time the conservation project is completed and the new use is permitted, and, 3) additional Trust Water Rights acquired and created using the revenue stream after the 50-year repayment period.
- 1-49. See the response to Comment 1-22.
- 1-50. Comment noted.
- 1-51. The Final EIS text has been changed to reflect this comment
- 1-52. The Final EIS text has been changed to reflect this comment. Mitigation will be specifically tailored to impacts, should they be determined. .
- 1-53. The Final EIS text has been modified.
- 1-54. Upon completion of the Final EIS Ecology will initiate development of a cultural resources management plan for the Columbia River Water Management Program. Through that process, Ecology will consult with affected tribes to address their specific issues and concerns. Ecology will request participation of tribes and DOAHP in an advisory committee to guide development of the cultural resources management plan.
- 1-55. “Cultural Resources” is not explicitly defined in SEPA or in any federal law. In this context, cultural resources are presumed to be those archaeological, historical, or traditional cultural properties, either recorded or unrecorded, that are of significance for cultural or historic reasons.
- 1-56. Section 3.10.1 has been expanded to provide more details on Section 106 of the National Historic Preservation Act.

- 1-57. Text in Section 3.10.1 has been changed to reflect this comment.
- 1-58. Text in Section 3.10.2 has been changed to reflect these comments.
- 1-59. Table 3-23 heading and title have been changed to reflect this comment and explanatory text has been added.
- 1-60. Table 3-23 has been changed.
- 1-61. Text in Section 3.10.2.3 has been changed to reflect this comment.
- 1-62. Text in Section 3.10.2.4 has been changed to incorporate this comment.
- 1-63. Text in Section 3.10.3 has been changed to incorporate this comment.
- 1-64. Text has been changed to clarify the issue of site eligibility.
- 1-65. Text has been changed to address this comment.
- 1-66. Text has been changed to clarify the issue of site eligibility.
- 1-67. Text has been changed to clarify the issue of site eligibility.
- 1-68. This issue is addressed in Section 4.1.1.9, first and fourth paragraphs under Long-term impacts. Text in Section 4.1.1.9 has been changed to include chemical changes.
- 1-69. Text in Section 4.1.1.9 has been changed to reflect this comment.
- 1-70. The FEIS text has been changed to clarify the paragraph.
- 1-71. Text has been changed to reflect this comment.
- 1-72. Mitigation measures seek to avoid, minimize, rectify, reduce/eliminate, or compensate for impacts. Depending on the situation, the measures listed may appropriately mitigate for various impacts.
- 1-73. The FEIS text has been changed to reflect this comment.
- 1-74. The FEIS text has been changed to reflect this comment.
- 1-75. The FEIS text has been changed to incorporate this comment.
- 1-76. The FEIS text has been changed to reflect this comment.
- 1-77. The FEIS text has been changed to reflect this comment.
- 1-78. The FEIS text has been changed to reflect this comment.
- 1-79. The FEIS text has been changed to reflect this comment.

- 1-80. The FEIS text has been changed to reflect this comment.
- 1-81. The FEIS text has been changed to reflect this comment.
- 1-82. The FEIS text has been changed to reflect this comment.
- 1-83. Where there is a federal nexus such as a Section 404 permit for the U.S. Army Corps of Engineers, Ecology will comply with Section 106 and other applicable federal requirements. Where no federal nexus exists, Ecology will comply with Executive Order 0505. The Final EIS text has been changed to reflect this comment.
- 1-84. Ecology acknowledges and understands your concern for shrub-steppe habitats and the species dependent on this habitat in the Management Program project area. As stated in Section 3.7.2, “Conservation of remaining shrub-steppe habitat and restoration of disturbed lands are now top priorities for natural resource agencies. Very little shrub-steppe occurs within protected areas, such as national parks or wilderness areas, and the majority is owned publicly for livestock grazing and managed by state and federal agencies (Knick et al. 2005).” Ecology understands the importance of shrub-steppe habitat, its declining trend, and that many of the species that depend on this habitat are listed by federal and state agencies as endangered, threatened, candidate, or species of concern. In response to your comment regarding shrub-steppe-dependant species, the Final EIS text has been modified to provide additional details regarding these specific species and a more comprehensive list of state listed species in Section 3.7.3.

In response to your comment on the level of detail regarding the impacts to the shrub-steppe habitat types, it should be noted that the Management Program is currently being evaluated on a programmatic basis and thus specific impact to shrub-steppe habitat types due to the program are unknown at this time. Please refer to the Master Response for a Programmatic EIS for a complete discussion of this issue and how it relates to fish, habitat, and wildlife impact analyses.

- 1-85. As stated in Section 4.1.1.6, the Final EIS discusses the potential conversion of habitats to agricultural uses as a result of new storage facilities, “. . .increasing the risk for further habitat loss for species dependent on shrub-steppe habitats. Listed plant species may include Spalding’s catchfly, northern wormwood, and whitebluffs bladderpod. Wildlife may include listed species such as pygmy rabbit, Columbia white-tailed deer, Washington ground squirrel, and sage grouse. As required by federal and state regulations, a site-specific evaluation of threatened and endangered species in the proposed project area would be conducted for each storage project.”

Projects undertaken as part of the Management Program would vary in the degree to which they could influence shrub-steppe conversion. Water from a large Columbia River mainstem storage facility, such as those described in Section 2.1.2.1, could be used by Reclamation to provide water for part or all of the second half of the Columbia Basin Project. While that would likely result in some conversion of shrub-steppe habitat to irrigated agriculture, most of the area affected by the second half project has already been converted to dry land agriculture. In any case, a NEPA EIS would be required for a Columbia River mainstem storage facility. The EIS would need to address the direct, indirect, and cumulative impacts

of the facility. The Odessa Subarea Special Study is a water source replacement project that addresses lands that are already in irrigated agriculture. Similarly, the Supplemental Feed Route Project is intended improve the system for delivery of water to lands that are already irrigated. The proposed Columbia-Snake River Irrigators Association (CSRIA) Voluntary Regional Agreement (VRA) would address two classes of water users or potential water users: current interruptible water right holders and new water right applicants. The supplemental water rights for interruptible water right holders would apply to existing irrigated lands. While the supplemental rights may result in a conversion of the types of agricultural crops produced, it will not significantly expand the amount of land in irrigation. New water rights associated with the VRA could result in land conversions, primarily along the Columbia and Lower Snake River mainstems. However, portions of the lands that would potentially be served by the new water rights are already in dry land agriculture. The VRA implementation plan and the associated SEPA environmental review would need to address the direct, indirect, and cumulative impacts associated with specific VRA projects and permit actions.

- 1-86. Comment noted. Traditional use of these lands is noted in Section 3.10.2.2. Information on use of shrub steppe habitat for fishing and hunting and gathering has been added to that section.
- 1-87. Comment noted. Omission of consultation with tribes in Section 4.3 was an oversight that has been corrected. Ecology will continue to consult with the CTUIR and other tribes as the Management Program is implemented. As noted in the response to Comment 1-83, Ecology will follow federal and/or state consultation requirements as appropriate.
- 1-88. Comment noted.
- 1-89. Comment noted.

November 22, 2006

Derek Sandison
Department of Ecology CRO
15 W. Yakima Ave., Suite 200
Yakima, WA 98902-3452

Dear Mr. Sandison,

2-1 Yakama Nation staff submits the following comments on the Draft Programmatic Environmental Impact Statement for the Columbia River Water Management Program. These amended comments are submitted as an amendment to and replacement of the comments we submitted two days ago on November 20th, 2006. We received an extension from the SEPA responsible official by email on November 20th. We incorporate by reference the scoping comments previously submitted and the comments on the inventory and supply and demand inventory previously submitted.

2-2 We are also incorporating a draft Economic Analysis of the Columbia River Basin Water Mitigation Program. This document concludes that the proposed mitigation fee under the CSRIA VRA may be substantially less than the actual cost of providing mitigation. This concern was also raised in the National Research Council Report referenced in 1.3.1.3.

2-3 Most of the actions considered in the PEIS have a federal nexus. The Yakama Nation reserves all rights and remedies in any federal process that may occur as a result of the CRWMP.

2-4 Although titled as a Programmatic EIS, the document is a mix of programmatic and project elements. We believe this is inappropriate and that separate EIS's should be done for the project actions. At a minimum, the EIS should spell out which actions are being considered only programmatically and will require further SEPA review and which, if any, Ecology considers to have been fully analyzed in the PEIS.

2-5 The PEIS addresses many proposed actions in the form of "maybe we will do this or maybe we will do that". This lack of definition leaves the reader unable to fully comment. The programmatic EIS is insufficient to put the public on notice of the Department of Ecology's proposals and should be reissued when those actions are decided. We reserve the right to respond to future proposals as they become more clear.

2-6 The DPEIS perpetuates the often-repeated offensive language discounting the importance of the fish based economy of the northwest. Drawing the distinction between water supplies "to meet the economic and community development needs of people" and those to meet "the instream flow needs of fish" is an apparent expression of disregard for the native people of the region and the human economy that sustained them for 700 generations before the non-Indian European settlers arrived. For the Yakama people, water for fish is water for people.

2-7 We wish to clarify our view on the ratios used in the CRWMP to describe the distribution of water that would be stored in facilities that may be proposed for construction under the CRWMP. The Yakama Nation provides these comments as to the State's proposed action under state law. However, any action that the State takes can have no impact on the Nation's Treaty rights and the Yakama Nation fully reserves its rights to assert and protect its Treaty rights and other rights under federal and state law. The State can only speak for and concerning any state-funded share of stored water, and then only to the extent that storing or appropriating water under state law does not impair the rights or damage the resources and interests nor impair senior water or other Treaty rights or federal interests. Any decisions on new storage and distribution of water will be ultimately be determined by the United States Congress in an open public process involving federal stake holders including the Federally Recognized Indian Tribes whose Treaty Reserved Water Rights associated with their Treaty Fisheries are the senior water rights in the Columbia River. The Yakama Nation was not a party to the agreement on distribution of water made in Olympia referenced in the DEIS, and such agreement, however characterized by Ecology here, cannot affect, impair, reduce or quantify the Yakama Nation's Treaty fishing and water rights.

2-8 It is not accurate or appropriate to assume that the ratio for distributing stored water dictated by the new state law would be followed by the United States. On the contrary, given that the state has only elected to address impacts during July and August (April to August for the Snake) with the funding it would provide for water storage and some other measures in the bill, it stands to reason that the United States would see the legal obligation to protect and enhance flows during all periods of the year when flows are not adequate to meet the needs of all life history stages of all species of fish and other aquatic life in the river.

2-9 For a hypothetical reservoir constructed under the Columbia River Bill, with a cost of one billion dollars and a state cost share of one hundred million dollars and one million acre feet of capacity, the analysis should assume that 66,666 acre feet of stored water would go for out of stream uses, 33,333 for summer flows in the Columbia River, and 900,000 acre feet would be determined by act of Congress.

2-10 It is also reasonable to assume that the United States Congress may have different priorities than the Washington State Legislature. Congress may find it less of a priority to subsidize water for new real estate developments and new agricultural enterprises than to shore up unmet demands in existing federal irrigation projects and fisheries restoration projects such as in the Yakima Basin. The Yakama Nation was not a party to the prioritization of new uses from the Columbia River ahead of existing uses elsewhere in the basin.

2-11 The PEIS greatly understates the year-round complexity of managing the Columbia River. The PEIS fails to analyze its proposal in the context of the system of federal projects and federal and Treaty rights on the Columbia. We find no regard shown in the PEIS for the tradeoffs that must occur for water to be shifted from instream to out of stream consumptive uses and from season to season. It is as if the PEIS pretends that no months exist besides July and August. This limitation of the analysis to July and August is arbitrary and capricious and not in accordance with Ecology's duties under SEPA.

2-11 This error by Ecology may be the result of an overly simplistic reading of the National Research Council Report (see 1.3.1.3).

2-12 The PEIS fails to recognize or address the cascading effects (cumulative impacts) of upstream actions on downstream facilities. The PEIS fails to address, for example, the increased difficulty that might be experienced by downstream dam operators and water users by reducing the annual water budget and altering the seasonal flow patterns downstream of Grand Coulee. These proposals cannot be addressed in isolation on the Columbia River, where there is a large nexus of federal, state, interstate, international, and private activities along with natural variations. The NRC report advises a great deal more consideration of cumulative impacts, and the complex inter-jurisdictional nature of Columbia River management than appears in the CRWMP PEIS.

2-13 2.2.2 This section does not provide adequate definition of how conservation savings will be calculated to allow adequate analysis of potential impacts associated with conservation and possible reuse of water.

2-14 2.2.8 This is deficient in that it fails to consider impacts on other months than July and August. SEPA requires that the the State consider all environmental impacts, not just those in July and August.

2-15 2.2.4 The act does not prohibit acquisition and transfer of water from one WRIA to another, as a matter of state law, but simply requires Ecology to obtain specific legislative approval for such where Columbia River Account money is being spent. Any expenditures from the account require appropriation of funds, which constitutes specific legislative authority. Thus this section overstates the limitation on this important and economical tool for supplying new desires for water. The section should be corrected to reflect the actual statutory language. The EIS should properly evaluate acquisition and transfer as a tool that has proven effective, where it has been properly utilized, as a way to meet needs at lower cost and with less environmental damage than constructing new infrastructure.

2-16 2.5.1 This section appears to be mislabeled. The text describes large new proposed diversions from the Lake Roosevelt reach of the Columbia. The proposed diversions would result in a drawdown, of course, but the action whose impacts should be analyzed would seem to be the diversions. This appears to be impermissible piecemealing the SEPA analysis. See further discussion below.

2-17 2.5.2 This section fails to make the case for the need for the Supplemental Feed Route. Has there ever been an instance where the SCBID failed to receive water because of the purported need. If so, why is it not documented?. If this is a proposal to free up canal capacity to supply additional water to new lands, the PEIS must not fail to disclose this.

2-18 As CRWMP has evolved from the Columbia River Initiative, non-construction alternatives appear to have been dismissed in favor of more expensive, more damaging construction project. The CRWMP PEIS has not adequately studied the non-construction

2-18 alternatives. An earlier proposal to solve this purported problem was acquiring flood easements downstream of Potholes to allow additional winter storage, an option requiring no construction, undoubtedly less cost, and less environmental damage. This is an example of CRWMP and the PEIS failing to consider reasonable alternatives.

2-19 2.5.3.1 How will CSRIA or its members document compliance with law? How will Ecology verify? How will Ecology document compliance? These questions should be discussed here.

2-20 3.1 Describes affected area as east of the Columbia. The inventory of potential conservation projects published by Ecology includes the tributary basins west of the Columbia. These areas stand to be affected and should be included in the affected environment.

2-21 3.1.1 In addition to diet and culture, salmon were a vital part of the economy of the native people of the Columbia basin.

2-22 3.4.1.1 (p. 3-18) and Table 3-3. While we realize that the main aim of the report is to discuss the Columbia Mainstem, we cannot agree that, in the Columbia River Basin system, there are "no other quantified international, interstate, or tribal in- or out-of stream flow requirements." The state court adjudication in *Ecology v. Acquavella* in Yakima County Superior Court of surface water rights in the Yakima River Basin has recognized a Treaty water right for fish for the Yakama Nation. The Court has recognized that the Yakima Nation has a Treaty water right to maintain fish and other aquatic life found in the Basin. The right is not limited in geographic scope to the Yakama Reservation but applies to all tributaries in the Yakima Basin which provide fish and other aquatic life at identified usual and accustomed fishing places off reservation. The right has a priority date of Time Immemorial. There is also a water right for fish and other aquatic life on reservation.

2-23 4.1.3.1 The discussion of VRA short and long term impacts failed to discuss or disclose that a negative impact of a VRA is that the VRA would increase consumptive use of water in the Columbia basin both regionally and locally and impair fish passage and fish life (see National Science Academy).

2-24 2.2.7 Out of line processing of applications for new, consumptive, out-of-stream water rights raises serious legal and constitutional issues and should be discussed here.

2-25 4.3 Cumulative Impacts of Management Plan. The plan fails to study or consider alternatives concerning the cumulative impacts on the anadromous fish runs of the Columbia Basin.

2-26 Chapter 5.0 intro p. 5-1. The EIS needs to disclose for which actions the State considers this document to provide final environmental review, and which actions will be analyzed further in project level EIS's.

2-27 If a VRA requires new diversions above the SEPA threshold, will Ecology perform separate SEPA analysis, or does it assert that this EIS constitutes project level review of VRA based diversions? This is insufficient to comply with SEPA absent a new, separate EIS for each project..

2-28 5.1 This section mislabels the action. The "action" is not drawing down Lake Roosevelt. The proposed "action" is the issuance of large new water rights out of the Columbia River and the new diversions. The point of diversion is Lake Roosevelt. The drawdown is but one consequence of the proposed action. It appears the State is doing an EIS on the wrong action.

2-29 5.1.1.3 Repeatedly the PEIS characterizes the impact on streamflow of the "Drawdown" as an increase in flow. It is physically impossible that diverting more water and using it consumptively could result in a net increase in flow downstream of the point of diversion. Given the most basic truth of hydrology, that inflow equals outflow plus change in storage, and that storage remains constant when averaged over time, an increase in outflow and consumptive use must, over time, decrease outflow from the reservoir to downstream reaches. This net loss in water budget would have to be made up at the expense of streamflow at some time. The PEIS must analyze the effects of this deficit in the water budget on other components of the flow regime, including the likelihood of meeting BIOP and WAC set instream flow. The PEIS compounds this error by stating that no mitigation is required.

2-30 5.1.1.5 Given that the actual proposed action is issuing new water rights, not drawing down the reservoir, the analysis of effects on water rights is inadequate and misses the point. The USBR's claimed storage rights do not allow it to operate the reservoir any way it chooses if it is affecting downstream interests or Treaty rights of the Yakama Nation. It may not simply choose to divert more water, as this section suggests. Mitigation (or denial of new water rights) would be required for any impacts of the proposed action, not merely the effects on users of Lake Roosevelt.

2-31 5.1.1.6 (p. 5-5). SEPA requires Ecology to study, develop and describe appropriate alternatives. The DEIS fails to study effects on anadromous fish in the Columbia Basin of the proposed drawdown. Instead, it examines only local impacts of resident fish. On those resident species, it concludes that impacts will be "small" without citation to any evidence. This despite the DEIS' own statement that "there is a "[m]ajor area of uncertainty in the Columbia River Basin ...the relationship between environmental variables and the survivability of anadromous fish." section S.5 (p. S-10). The DEIS goes on to state that "... [i]t is known that lower survival rates and changes in salmon migratory behavior are expected when stream flows become critically low or when water temperatures become excessively high." *Id.* Ecology ignores the National Academy of Sciences report which advised against any new withdrawals or diversions that might affect, as this will, the Columbia River water available to aide fish migration. (Cite to National Academy Report). We do not concede there is any "uncertainty" in terms of the

2-31 impact on fish life of Ecology's proposed action and urged that it be fully studied and disclosed here.

2-32 5.1.1.6 Mitigation The net effect of the proposed action would be a decrease, not augmentation of streamflow as is stated. The PEIS correctly points out that in drought years BIOP target flows are not met. What is not disclosed is that the effect of CRWMP on drought years would be particularly severe, given the intention to divert additional water for out of stream uses in those years. The PEIS must analyze the impacts of further depleting the water budget in dry years, including decreasing the likelihood that flow targets will be met in months other than July and August. Impacts on the hydro system should also be analyzed. The PEIS should consider other reasonable alternatives like deeper drafting of Lake Roosevelt in drought years to provide adequate flows downstream.

2-33 Page 5-9 What is meant by the phrase "at least on an administrative basis"? The Olsen 2005 reference should either be eliminated or any of the large number of contrary opinions should be offered in balance.

2-34 5.1.2.3 The "total discharge from the lake (Roosevelt) to the Columbia River" is much greater than stated and would, on an annual basis be diminished by the proposed action.

2-35 5.1.2.5 What about the application for the water right for instream flow? Has that been neglected? What guarantee is there that any of the promised "mitigation" would ever make it to the river? Ecology can only approve the application for new out of stream use if water is available from the Columbia River, not just Lake Roosevelt as stated. Again, this action would cause a negative change in the annual water budget. This discussion is inadequate. The depletion may cause increased difficulty in meeting BIOP flows, contrary to the PEIS, particularly in dry years. Analysis is required. The mitigation section is not EIS worthy and violates SEPA, as it leaves the question of mitigation until later.

5.1.2.6 We note the acknowledgement that the CRWMP proposes only biologically inconsequential improvements (and then only in July and August) as mitigation for large new water diversions.

2-36 **S.3.2.1 (For example)** Section states that USBR has determined that drawdowns of Lake Roosevelt "are within normal operations of the reservoir and do not require any additional analysis under ...NEPA" (See Chapter 5.0 at p. 5-1). It is not the drawdown alone (i.e. change in water level regime in Lake Roosevelt) that must be subjected to disclosure and analysis under both SEPA and NEPA. It is the proposed new diversions. These proposed diversions are not within the normal operations of the reservoir or the river and must be subjected to scrutiny under SEPA, NEPA, and other required reviews including analysis under the Endangered Species Act of the effects of the proposed new diversions on listed species, Treaty-protected fish, and target flows in all months of the year, including dry years.

2-37 USBR draws down Lake Roosevelt annually to a level much lower than proposed in the action without conducting an EIS. An EIS is, however, required for diversions of the size proposed. Does this section of the Draft Programmatic EIS also purport to be a project EIS for the diversion proposed? This level of analysis cannot be considered to be an adequate review for the purpose of issuing new water rights out of the Columbia River.

2-38 The metric used in the PEIS to describe the proposed mitigation (percent increase in flow caused by the one-third left in stream) is not valid. The flaw becomes apparent when one considers that even larger depletions in stream flow by increased diversions, themselves causing further damage, would "increase the effectiveness" of mitigation by increasing the "augmentation" as a percent of the of the further diminished flow. New diversions would reduce the volume of water available for instream flow. This adverse effect would be greatest in dry years when the "mitigation" would be "most effective" according to the analysis in the PEIS.

2-39 5.2 If the proposed new feed route would result in greater diversions from the Columbia River, this must be disclosed.

2-40 Page 5-8 See meeting notes from CRPAG meeting of 10-11-2006 (federal panel). Any action that makes it less likely that flow targets and other flows needed for fish will be met in any year would be problematic (see Ecology Web Page).

2-41 **5.3 Columbia-Snake River Irrigators Association VRA.**
This fails to consider cumulative impacts of proposed VRA on the anadromous fish runs of the Columbia River.

2-42 The DPEIS fails to study the impacts on storage and on the fish runs of the Pacific Northwest that result from the "presumption ... that protecting instream flows during July and August in the Columbia River... is adequate mitigation for new water rights under a VRA." p. 5-41. This fails to disclose the Ecology's own statement on its web page at

www.ecy.wa.gov/programs/wr/cwp/crwmp_info.html#draftvra

under which it describes a "Voluntary Regional Agreement (VRA) Example" that "State expenditures could only meet the July/August mitigation standard (150 ac-ft) through the use of storage."

2-43 6.2.7 (p. 6-13) Has Ecology considered all reasonable and prudent alternatives? Ecology needs to consider, among its options for, "no negative impact to stream flow during July and August" no impact on total acre-feet available in entire Columbia River system and no impact on any pool and any storage anywhere in the Basin, not merely no impact in specific reaches. There can be no granting of a new state right which would be a new consumptive use right unless the State can show that, as mitigation, another actual water right which has been used with identical consumptive use is retired in exchange.

2-44 4-38 This section contains a pernicious spin on the Burke case. The EIS should analyze Impact, not impairment. Compare with 90.03.380.

Appendix G. - Water Rights Summary.

2-45 There is much discussion in the report of interpretations of law by the report writers. We do not agree with a number of these assertions but comment briefly on a few of them. However, these comments do not address all of these issues, do not constitute a legal position of the Yakama Nation, and we specifically reserve our right to comment and dispute these points as appropriate later.

2-46 **State-based water rights.** Fish and Wildlife rights under state law are not limited to "fish and wildlife maintenance".

2-47 **Exempt Ground Water Rights.** The definition offered is based on an opinion by the Attorney General's office and is contrary to long-standing Ecology interpretation, is disagreed with by many entities, and has not been tested in court. We specifically dispute the Attorney General's opinion.

2-48 **Municipal Water Rights.** This section claims that the legislation "clarified the definition of municipal water supply." We believe that the legislation cited attempted to change, rather than clarified, existing state law in violation of applicable constitutional and other applicable law.

2-49 **Federal Tribal Reserved Water Rights.** This section does not fully nor completely describe the rights of the tribes in the Columbia Basin. The Yakima Nation holds Treaty water rights for fish and other aquatic life with a priority date of time immemorial. The Nation also has a Treaty water right for, *inter alia*, irrigation of all practicably irrigable acreage, both on and off reservation, owned by it or its tribal members with a priority date of 1855 as well as water for the Yakama Nation for all other purposes to the fullest extent reserved by Treaty.

Thank you for the opportunity to comment.

Sincerely,

Philip Rigdon, Deputy Director
Yakama Nation Department of Natural Resources

Comment Letter No. 2 – Yakama Nation Department of Natural Resources

- 2-1. Comment noted.
- 2-2. This document was received and is discussed in Sections 3.2.2 and 3.2.2.5.
- 2-3. Comment noted.
- 2-4. See the Master Response regarding a Programmatic EIS. Information regarding anticipated project-level review for subsequent actions has been added to Section S.4 of the Final EIS.
- 2-5. See the Master Response regarding a Programmatic EIS. Additional information has been added to Section S.4 regarding future project specific review.
- 2-6. The language referred to is taken directly from the Columbia River Management Act (Chapter 90.90 RCW). The language is not intended to disregard the views of native people. The significance of the relationship between fish, people and water to native people is acknowledged in Section 3.10.3 of the EIS.
- 2-7. Ecology acknowledges that state action cannot impact treaty rights of the Yakama Nation or any other native tribe.
- 2-8. Instream flow contributions from new storage facilities made possible with funding from the Columbia River Basin Water Supply Development Account are not limited to the July/August time frame. RCW 90.80.020 states that: in regard to the one-third of active storage to be available to augment instream flows: “timing of the releases of this water shall be determined by the Department of Ecology, in cooperation with the Department of Fish and Wildlife and fisheries comanagers [sic], to maximize benefits to salmon and steelhead populations.” Releases can occur at any time of the year. The establishment of the mitigation standard of no negative impact to the Columbia River during July and August applies only to Voluntary Regional Agreements per RCW 90.90.030.
- 2-9. While it is acknowledged that Congress, in its authorization of a federal project, can apply whatever conditions it deems appropriate, the state of Washington has discretion in determining its conditions for providing matching state contributions to the project. The one-third allocation for augmentation of instream flows applies to: “water supplies secured for development of new storage facilities made possible with funding from the Columbia River Basin Water Supply Development Account . . .” (emphasis added)(RCW 90.90.020). That portion of the RCW is interpreted as stipulating that if money from the account is necessary to “make a project possible,” the one-third allocation for instream flow augmentation would apply. In the current Columbia River Mainstem Off-Channel Storage Study appraisal level evaluation being undertaken by Reclamation with financial contributions from the Account, the assumptions for reservoir water demand include allocation of one-third of all active storage for instream flow augmentation.
- 2-10. See responses 2-8 and 2-9.
- 2-11. It is acknowledged that the year round management of the Columbia River is very complex,

and that tradeoffs will occur. As noted in Comment 2-8, the July/August mitigation only applies to Voluntary Regional Agreements. See the Master Response regarding July/August mitigation.

- 2-12. Cumulative impacts have been considered at a broad level for this evaluation, in accordance with information currently known about potential projects. The cumulative impacts discussion in Section 4.3 has been modified to acknowledge that potential downstream benefits could accrue at a cost to upstream users. Additional analysis of potential tradeoffs, including potential cumulative impacts, will be included in all project-level evaluations.
- 2-13. Additional discussion of calculating conservation savings is provided in Chapter 6 of the Final EIS.
- 2-14. See the response to your Comment 2-8 regarding the applicability of the July/August mitigation requirement to Voluntary Regional Agreements. See also the Master Response regarding July/August mitigation.
- 2-15. See the revised Section 2.2.4 and 6.1.5 for an expanded discussion of this policy alternative.
- 2-16. The section title is not intended to limit the discussion to drawdown of the lake. The project is referred to as the Lake Roosevelt Drawdown by Ecology and Reclamation and that is how the project is identified in the EIS. Section 2.5.1 of the EIS describes both the drawdown of Lake Roosevelt and the diversions. The impacts of both are described in Chapter 5 of the EIS.
- 2-17. The Supplemental Feed Route will not expand the area of irrigated agriculture. As stated in the EIS, the Supplemental Feed Route would improve the reliability of the delivery of water to Potholes Reservoir. While there are no past instances where Reclamation has been unable to provide deliveries to the South Columbia Basin Irrigation District, it has proven to be a difficult task for Reclamation to meet their responsibilities.

As stated in Section 2.6.2, the Supplemental Feed Route would also free up capacity in the East Low Canal to deliver replacement water to the portion of the Odessa Subarea within the boundaries of the Columbia Basin Project. The purpose of the Odessa Subarea Special Study is to identify measures to replace ground water with surface water on existing agricultural lands, not to expand the acreage of irrigated lands. Increased reliability of irrigation water may result in changes to crop types. Additional evaluation of the purpose of the Supplemental Feed Route and its potential impacts will be provided in Reclamation's NEPA Environmental Assessment of the project. It should be noted that development of the Supplemental Feed Route is a stand-alone project. Several of the initial alternatives being evaluated in the Odessa Subarea Special Study would be facilitated by the feed route project. However, the Supplemental Feed Route does not create a commitment on the part of Reclamation or Ecology to implement future projects associated with Odessa Subarea Special Study.

- 2-18. Non-construction and conservation program components are addressed in the EIS. The potential acquisition of an evacuation route and flood easements in Crab Creek downstream of Potholes Reservoir, as well as options for re-operation of Potholes Reservoir, are being

evaluated in the Odessa Subarea Special Study. The feasibility level and analysis and EIS associated with that study are expected to commence in 2008 and be completed in 2010.

- 2-19. Ecology will account for Trust Water Rights and permits that rely on Trust Water Rights through a combination of measuring, reporting, field verification and aerial photography assessment. Permits issued to mainstem water users that rely on water from the Trust Program for mitigation will be required to measure and report in accordance with RCW 90.03.360 and WAC 173-173, plus any specific requirements arising out of the final VRA. Before the draft CSRIA VRA can be signed, Ecology must provide a public comment period. Ecology has determined that it will negotiate with CSRIA to address comments received during the 60-day consultation prior to the initiating the public comment period.
- 2-20. Section 3.1 states that the focus of the affected environment is the Columbia River basin in eastern Washington because it is likely that most projects proposed under the Management Program will be located in that area. However, the entire Columbia Basin in the state of Washington is described in Chapter 3 as the affected environment.
- 2-21. Comment noted. The Final EIS text has been revised to include economy of the native people.
- 2-22. Comment noted. The reference to "no other quantified" tribal instream flow requirements in Section 3.4.1.1 is a reference to numerically quantified requirements. The state court adjudication in Ecology v. Acquavella confirmed a narrative rather than numerical treaty water right for fish.
- 2-23. Comment noted. A discussion of increased consumptive use has been added to Section 4.1.3.1.
- 2-24. Ecology has elected to continue processing applications in accordance with its existing WAC 173-152. Applications would be taken "out of line" only when they meet the criteria for expedited process.
- 2-25. The FEIS text has been revised to reflect potential cumulative impacts to fisheries resulting from alterations to hydrology that could accompany specific components of the management plan. Additional discussion of this issue will occur associated with project-level evaluations, once specific projects have been identified.
- 2-26. Additional information has been added to Section S.4 regarding future environmental review.
- 2-27. If the CSRIA VRA is signed, Ecology intends to prepare a periodic implementation plan jointly with CSRIA that would specifically identify water supply projects and match them to the candidate applications to receive mitigation benefits associated with the VRA. Ecology would provide public notice and SEPA review, including a threshold determination for the series of related actions described within the implementation plan.
- 2-28. See the response to Comment 2-16.
- 2-29. The paragraph in Section 5.1.1.3 describing long-term impacts to water quantity has been revised to provide more explanation of the potential impacts to streamflow. Additional

information on the potential impact on streamflow will be provided in the Supplemental EIS that Ecology will be preparing on the Lake Roosevelt drawdown.

- 2-30. The EIS does not dispute that the Yakama Nation has a senior water right for fish and other aquatic life (see Section 3.6.1.3 and Appendix G). Reclamation's operation of the Lake Roosevelt reservoir may not adversely impact the rights of the Yakama Nation. Section 5.1.1 discusses impacts at Lake Roosevelt, and additional detailed analysis will be conducted as part of the Supplemental EIS prepared by Ecology for the Lake Roosevelt drawdown. For a discussion of impacts downstream in the receiving area, see Section 5.1.2.
- 2-31. Comment noted. See the response to Comment 1-15. Ecology incorporated the National Research Council report as a part of the EIS by reference (Section 1.7).
- 2-32. Ecology has determined that additional review of the Lake Roosevelt drawdowns is required and will prepare a Supplemental EIS. Refer to the Master Response regarding July/August mitigation.
- 2-33. This statement has been modified in the Final EIS to remove "on an administrative basis." The Olsen reference was included to indicate that not all reviewers agree with the National Research Council conclusion and has been retained.
- 2-34. The discharge from Lake Roosevelt to the Columbia River that is presented in Section 5.1.2.3 is the total **additional** volume of water to be discharged as part of the Lake Roosevelt drawdown project. This is the discharge associated with the additional drawdown of one (non-drought years) to one and a half (drought years) feet. The Final EIS text has been changed for clarification.
- 2-35. The water right for instream flow will be established when the water is transferred to the state Trust Water Rights Program and identified as a trust water right for purposes of instream flow. The priority date of the Trust Water Right will be the same as the underlying right, in this case 1938, the date of Reclamation's withdrawal of water for the Columbia Basin Project. The out-of-stream uses resulting from additional drawdown of Lake Roosevelt will be beneficial uses secondary to Reclamation's reservoir rights in Lake Roosevelt. Mitigation of new water rights must be determined on a case-by-case basis when the application is processed by Ecology. The text has been modified in response to this comment.
- 2-36. It is acknowledged that the diversion of water associated with the Lake Roosevelt Drawdown is subject to SEPA review. Refer to the response to comment 2-16 for a discussion about the naming convention in the EIS. The impacts associated with the diversions are discussed programmatically in this EIS, and will be discussed in more detail in the Supplemental EIS that will be prepared by Ecology regarding the Lake Roosevelt Drawdown and associated diversions.

- 2-37. This EIS is a programmatic EIS, the first phase in SEPA under phased environmental review. Additional evaluation will be conducted on the Lake Roosevelt Drawdown as part of a Supplemental EIS being prepared by Ecology. In addition, Reclamation will conduct NEPA review on any federal action for use of water.
- 2-38. Diversions and releases from Lake Roosevelt as part of the drawdown project would occur after re-filling of Lake Roosevelt is completed on July 1st. The water diverted and released would from the 6.4 million acre-feet of water stored by Reclamation under its 1938 storage rights. The drawdown project would have the effect of augmenting streamflow downstream of Grand Coulee Dam during July and August. A portion of that water (27,500 acre-feet every year and an additional 17,000 acre-feet during drought years) would be held in trust for instream flow the entire length of the river downstream of Grand Coulee Dam.
- 2-39. The proposed Supplemental Feed Route will not increase diversions from the Columbia River, but will provide an alternative route for channeling existing diversions to Potholes Reservoir. As stated in Section 1.1, the impacts of the Supplemental Feed Route will be further evaluated by Reclamation in a NEPA EA.
- 2-40. See the Master Response regarding the July/August mitigation issue. Additional information has been added to Section 3.1 regarding federal management of the Columbia River system.
- 2-41. The general impacts of VRAs on fish are described in Section 4.1.3.1. These same impacts would apply to the CSRIA VRA. The cumulative impacts sections (4.3 and 5.5) have been expanded in the Final EIS.
- 2-42. See the Master Response regarding the July/August mitigation issue.
- 2-43. Comment noted. Ecology believes that all reasonable alternatives to the Management Program developed under the provisions of Chapter 90.90 RCW have been considered. The Management Program will be implemented in a manner that is consistent with priorities and objectives of Chapter 90.90 RCW.
- 2-44. Comment noted. The EIS analyzes impact and impairment. The latter constitutes a negative impact in the context of water rights.
- 2-45. Comment noted.
- 2-46. Comment noted. The reference to fish and wildlife maintenance in Appendix D is part of a list of beneficial uses of water and was not intended to define the extent of water rights for fish and wildlife under state law.
- 2-47. Comment noted.
- 2-48. Comment noted. The text has been amended to include a reference to the recently-filed lawsuit challenging the Municipal Water Law.
- 2-49. Comment noted. The text is intended to be a brief overview of federal tribal reserved water rights and is not specific to the Yakama Nation or any other tribe.

**Confederated Tribes of the Colville Reservation
Comments on Draft Programmatic Environmental Impact Statement
For the Columbia River Water Management Program**

Prepared by
**Environmental Trust Department,
Fish and Wildlife Department, and
Office of the Reservation Attorney**

Submitted to
**State of Washington
Department of Ecology**

November 22, 2006

A. Introduction

The Colville Tribes welcomes this opportunity to participate with the State of Washington in this process towards the common goals of providing a healthy environment and economy for future generations, while at the same time protecting the Tribes' reserved rights to the use of water in the Columbia basin.

The DEIS is based on a conceptual plan that contemplates considerable future refinement in all of its elements. The plan contemplates, by our count, at least 23 separate processes and documents, few of which now exist, and many of which have potential impacts on the Colville Tribes. Accordingly, the Tribes reserves the right to comment on these plan components as they are refined in the future. In commenting at this stage on such a broad and complex plan the Tribes' will of necessity focus on major areas of concern. Indeed, the programmatic DEIS describes more of a process than a plan, the ramifications of which may not be known for many years. Some of our comments therefore address the process by which the Tribes' involvement in the CRWMP proceeds.

The comments that follow are divided into General Legal and Policy Matters, Water and other Natural Resources Matters, and Cultural Resources. Each section provides general comments and numerous page-specific comments.

B. General Legal and Policy Matters

As the State and Ecology are aware, the Colville Reservation consists of roughly 1.4 million acres bounded by the Columbia and Okanogan Rivers. The Reservation boundaries are located in the center of these boundary rivers. Accordingly, much of Lake Roosevelt is within the Colville Reservation. In addition, the Colville Tribes holds significant fishing, hunting, gathering and water rights within the former North Half of the

Reservation, and area of roughly 1.5 million acres between the current northern boundary of the Reservation and the Canadian border, and between the Columbia and Okanogan Rivers. The Colville Tribes holds significant instream and out of stream water rights (federal reserved rights) in all waters of the current Reservation and former North Half. The priority date of these rights is not later than 1872, when the Reservation was established, and in the case of instream rights to preserve or restore aboriginal fisheries, the priority date is time immemorial. The Colville Tribes actively regulates water use within the Reservation by both members and non-members of the Tribes and has developed an increasingly cooperative and constructive relationship with Ecology relative to coordination of regulation of waters under our respective jurisdictions that are hydrologically or hydraulically connected.

A principal, but not exclusive, basis of the Tribes' interest in the CRWMP is our Agreement In Principle with the State of Washington relative to the Lake Roosevelt Component of the CRWMP. The AIP recognizes the Tribes' fundamental and critical interests in the CRWMP and in Lake Roosevelt, as set forth above. The AIP is a framework document that contemplates the negotiation and execution of a comprehensive Memorandum of Agreement that will compensate the Tribes for, or otherwise mitigate for, impacts to the Tribes' interests caused by the new Lake Roosevelt annual drawdown of 82,500 acre feet. The AIP also contemplates other benefits and inducements for the Tribes' consent to the new drawdown. Until the MOA is executed, the Tribes' consent for the new drawdown is merely conditional. We are currently working on impact studies to quantify the impacts of the new drawdown, and performing other work, in an attempt to conclude the MOA by the end of summer 2007. Apart from the implementation of the AIP, the Colville Tribes has other critical interests in the Columbia basin that will be affected by implementation of the CRWMP. Our comments on the DEIS are informed both by our interests as recognized in the AIP and by the other aspects of the CRWMP that affect the Tribes. We look forward to a continued constructive relationship with the State of Washington with respect to implementation of both the AIP and the CRWMP. At several points in the comments that follow, we note the need for a meeting with Ecology to address certain questions, and we urge that that happen as soon as possible.

Specific comments follow:

Page S-8. Any additional mitigation measures that may be necessary with respect to impacts of the new Lake Roosevelt are not simply a matter of SEPA compliance as this section implies. The AIP with the Colville Tribes provides that certain impacts will be mitigated, subject to agreement as to quantification, irrespective of SEPA.

Page 1-5, 1.3.1.2. The spelling of "Principle" in the caption must be corrected.

3-5 **Page 2-24.** At some point in the discussion it should be noted that availability of the new Lake Roosevelt drawdown is contingent on completion of a comprehensive MOA with the Colville Tribes pursuant to the AIP.

3-6 **Page 3-7.** In the general discussion of Lake Roosevelt it should be noted that substantial portions of the reservoir lie within the Colville Reservation and are subject to tribal fishing and water rights, as well as regulatory authority. In addition, the Colville Tribes was not properly compensated for the taking and use of its lands for Lake Roosevelt and Grand Coulee Dam at the time the project was built. Several decades of claims litigation finally resulted, in 1994, in an historic Congressionally approved settlement under which the Colville Tribes now receives annual payments from BPA, under a formula based in part on BPA revenues. As a result, the Colville Tribes now has a crucial interest in protecting Lake levels for a variety of cultural, fisheries and economic reasons.

3-7 **Page 3-18, Table 3-3.** This Table does not accurately reflect the nature of the Colville Tribes' interest in the Columbia River. We are the only Tribe with a Reservation on the mainstem Columbia, with waters of the Columbia and Lake Roosevelt actually, and substantially, within Reservation boundaries. The Colville Tribes' right to fish in these waters is not limited to usual and accustomed places, but is a right that applies broadly throughout these waters. Similarly, there is no limitation on the Tribes' fishing rights in these waters within the former North Half of the Reservation. This effectively includes all waters of the mainstem Columbia and Okanogan Rivers within the United States above the Columbia-Okanogan confluence.

3-8 **Page 3-43, Table 3-14.** The information about the Colville Tribes must be revised. There are roughly 9500 tribal members as of the end of 2006. The reservation acreage is correct at 1.4 million acres, but there should be an additional reference to the 1.5 million acre North Half, where the Tribes holds the fishing and water rights (and other rights) referred to herein. In addition to the 1872 Executive Order that established the Reservation, the relevant Agreement with the United States under which the Tribes reserved rights in the North Half was executed in 1891. It was ratified by Congress in 1906 through 1910.

Water Rights Summary (unnumbered pages at conclusion of DESI).

3-9 **Trust Water Rights.** This discussion should expressly acknowledge that the one-third of new water supplies for the mainstem Columbia that are allocated to fish flows under the CRWMP must be placed in that portion of the Trust Water Rights Program that provides for the flows are "protected water rights," in order to ensure that they are truly protected as needed for fisheries purposes.

3-10 **Federal Tribal Reserved Water Rights.** While we generally concur in the brief discussion in this section, we note that federal courts have expressly concluded that under the 1872 Executive Order that established the Colville Reservation, the Reservation has

3-10 at least two primary purposes with respect to the implied reservation of water rights under the Winters Doctrine – agriculture and fishing (including preservation of access to traditional fisheries). The priority date of tribal reserved rights for out of stream uses at the Colville Reservation is 1872, and the priority date for the many traditional, aboriginal fisheries that still exist at the Colville Reservation or former North Half is time immemorial. *Confederated Tribes of the Colville Reservation v. Walton*, 647 F.2d 42 (9th Cir. 1981).

C. Specific Comments re Water Resources, Hydro-Power, Fisheries and Wildlife

Page S-2, addition of the following to the list of policy alternatives and guidelines for implementing the Management Program, is respectfully requested:

- 3-11 *inclusion of the plans for development of reserved and aboriginal rights to use the waters of the Columbia River and its tributaries by the Confederated Tribes of the Colville Reservation (and of other Tribes) in VRA's and/or other agreements involving the State of Washington and the United States.*

This subject needs full development in the discussion of Voluntary Regional Agreements throughout the programmatic EIS and as a subject separate from the VRA's involving the State of Washington and the United States. Discussion of the inclusion of plans for development by the Confederated Tribes concurrent with the "early actions" is needed.

Page S-3. Remove the third bullet immediately above section S.2.2.2 resulting in the following new paragraph:

The non-drought year diversion would result in approximately a one-foot drawdown of the reservoir and the drought year diversion would draw the lake down another 0.5 feet. Reclamation's proposals and water rights applications are predicated on agreement being reached with the Confederated Tribes of the Colville Reservation regarding the diversion."

3-12 It is believed that the narrative is intended to contribute not only to the drought year discussion but also to the full subject of the Lake Roosevelt drawdown in drought and non-drought years.

Page S-8, S.3.2.1. Add the following below the bullet "Reduced potential for hydropower generation at downstream facilities:"

- 3-13 *impacts on payments by BPA to the Colville Confederated Tribes pursuant to 1994 Settlement Agreement between the Confederated Tribes of the Colville Reservation and the United States.*

S.3.2.1. In addition, the EIS should address the following impacts:

Species listed under the ESA such as Bald Eagles
Native fish species

Ongoing mitigation measures currently in place will have to be re-evaluated to determine if proposed early actions will impair goals of those programs (specifically BPA funded projects)

Impacts on contaminants in sediments are more than an airborne issue, but the plants and transport of contaminated sediments, relocation of the water flow and pore water and destabilizing contaminated sediments.

Impacts to near shore vegetation.

Tribal economic resource impacts including current and future

Shrub-steep ecosystems are depleted in the State, the conversion of additional Shrub-steep habitats may have the potential to impact to these critical ecosystems, and a cap on conversion must be made as a part of this management plan. The CCT through its current mitigation programs are promoting the maintenance and increase of this habitat specifically for sharp tailed grouse and have relocated grouse for enhancement and mitigation at Lake Roosevelt.

Page 1-7, 1.3.1.4

The section fails to address economic impacts to Lake Roosevelt in its entirety.

In addition, revise the second bullet as follows:

- Will have moderately large negative impacts on hydropower production (which requires evaluation of the impact on payments by BPA to the Confederated Tribes pursuant to 1994 Settlement Agreement between the Confederated Tribes of the Colville Reservation and the United States).

Page 2-2, 2.1.2.1

The Black Rock Project and Wymer Project off channel reservoirs as proposed would pump water to the Black Rock from Priest Rapids Lake to put more water in the Yakama, but the Wymer Project is intended to pump water from the Yakima (unidentified use). The benefits from Black Rock would appear to be nullified by the impacts of the Wymer. Please clarify.

The Smilkameen Shaker's Bend Project has heavy steelhead spawning habitat, any project considered for storage should be upstream from this critical steelhead spawning habitat.

Page 2-13, 2.1.2.4

An inventory and demand forecast must incorporate the Colville Tribes' availability and need studies. The Tribal studies have only just begun and will take one to two years to complete. Note: We have not seen the inventory and demand forecast, although the completion date listed was Nov. 15, 2006. **We request a meeting with Ecology to discuss inclusion and timing of the tribal studies.**

Page 2-15, 2.2.3

Funding criteria have not been set for conservation projects; this proposal only addresses the funding criteria for the storage projects. What formula will be utilized for the 1/3 allocated for "other purposes" in this section?

Page 2-18, 2.2.9

An extensive volume of Columbia River water behind three dams is stored within the boundaries of the Colville Reservation. **The Tribes requests a meeting with Ecology to discuss application of integrating the boundary concepts in RCW90.90.30 with Tribal water resources planning, in particular with the availability and needs determination discussed above.**

Page 2-21, 2.2.13

So-called "exempt wells" must be included in the inventory/information system. Unregulated domestic wells are already impacting the Tribes reserved water rights. Ignoring the impacts of an entire class of wells on the region's hydrology is unrealistic and unacceptable. The Colville Tribes regulates water use within the Colville Reservation, by both members and non-members of the Tribes, and our Water Code and permitting and records systems do not provide exemptions for this or any category of wells.

Page 2-23, 2.5.1

The Tribes intends to coordinate with Ecology and USBR on all phases of any additional proposed water withdrawals at the Grand Coulee Project.

Page 2-24, 2.5.1.1

The statement that "...Lake Roosevelt drawdown is approximately 40 feet in an average year and as much as 80 feet in a drought year..." is not consistent with our understanding of normal operations. We believe that drawdown is less than average in drought years and more than average in wet years. Accordingly, this statement should be reviewed and clarified or corrected as appropriate. In addition, the DEIS suggests that irrigation withdrawals are to occur during regular current season drawdown. This too is not consistent with our understanding and we would appreciate clarification. When DOE proposes to draw down Lake Roosevelt for irrigation season, the lake will be at full pool. The timing of this proposed drawdown does not appear to coincide with the current seasonal drawdown. The operational fluctuations during the full pool operations will continue to occur, but at a foot and half less than current.

- 3-25 **Page 3-26, 3.4.2.1**
Pursuant to our AIP with the State of Washington, the Tribes is currently studying impacts to its resources of the proposed changes in Lake Roosevelt operations/levels. This study is supposed to be completed in 2007. Evaluation of impacts associated with metals and organic contaminants cannot be adequately described until the ongoing EPA RI/FS for the site has been completed. It is unlikely this will happen before 2010.
- 3-26 **Page 3-37, 3.5.3.1** A more appropriate caption may be *Odessa Subarea Study* instead of *Lake Roosevelt Drawdown*.
- 3-27 **Page 3-43, 3.6.1.3** The able needs to be corrected to accurately reflect nature of CCT's rights. This could be an additional subject of a meeting between the Tribes and Ecology.
- 3-28 **Page 3-71, Table 3-21.** Consideration should be given to a brief narrative on the marginal value of payments by BPA to the Confederated Tribes pursuant to 1994 Settlement Agreement between the Confederated Tribes of the Colville Reservation and the United States. The Tribes could assist with values and narrative.
- 3-29 **Page 3-72, 3.8.2.1.** Consider the following change shown in italic:

"Increases in agricultural, municipal, and industrial uses, for example, might result in increased omission of pollutants (*including total dissolved gases*) that would diminish water quality downstream..." *Water temperatures might also be adversely impacted.*
- 3-30 **Page 3-78, 3.9.4**
Lake Roosevelt does not simply *abut* tribal land; the lake overlies tribal lands as well as federal lands (BLM/USBR). Restate as: *A substantial portion of Lake Roosevelt is within the boundaries of the Spokane and Colville Reservations.* The tribal use of tribal member boating (or boating access) should be added as it was in the Columbia Basin authorization act. The authorizing legislation for Grand Coulee Dam explicitly recognizes a "paramount right" of the Colville Tribes for fishing and related purposes at Lake Roosevelt.
- 3-31 **Page 3-93, 3.13.1.** Same comment as at page 2-13 above concerning the need to include the Tribes needs and the need for further discussions on how to accomplish this.
- 3-32 **Page 4-4.**
It is not considered necessary to address the impact on payments by BPA to the Confederated Tribes pursuant to 1994 Settlement Agreement between the Confederated Tribes of the Colville Reservation and the United States at all mention of hydropower impacts in the programmatic EIS, but as decisions on narrative revisions are made to address the subject, consideration might be given to the discussion on page 4-4 as modified by the italic:

- 3-32 Increased demand for irrigation water could reduce hydropower production and *BPA payments to the Confederated Tribes of the Colville Reservation.*
- 3-33 **Page 4-6, 4.1.1.3**
There is no mitigation offered for the long term water quality impacts identified. We request that mitigation be initiated for long term water quality effects of storage facilities.
- 3-34 **Page 4-21.** Similar to comment re page 4-4., consideration might be given to the discussion on page 4-21 as modified by the italic:

Diverting water from the Columbia River for storage and use elsewhere might reduce the amount of water available to generate hydropower... Any potential impacts to hydropower or navigation would be closely reviewed with the potentially affected utilities, *the Colville Confederated Tribes* and coordinated under the Federal Columbia River Power System.
- 3-35 The discussion at the bottom of page 4-21 under the subject of "Mitigation" is appreciated by the Confederated Tribes:

"Coordination with tribal and non-tribal resource managers, and consultation with communities of interest would promote the identification and balancing of their respective economic concerns."
- 3-36 **Page 4-29.** See comments on 4-4 and 4-21, above, which can result in improvement of the narrative on page 4-29, first paragraph:

Potential impacts to hydropower generation would depend on the specifics of any proposed project. For any project that could reduce power generation potential, Ecology would work in conjunction with Reclamation to coordinate and negotiate with Bonneville Tower Administration, Columbia River PUD's, *the Confederated Tribes* and the Corps of Engineers to determine potential impacts and appropriate mitigation.
- 3-37 **Page 4-39, 4.1.2.6**
Assumptions made about potential impacts to fish or other resources are premature.
- 3-38 **Page 5-1, 5.1**
Rather than make specific comments on this document the Tribes will be submitting our own report describing impacts of the proposed withdrawals in 2007.
- 3-39 **Page 5-2, 5.1.1.1**
Areas where sloughing may occur must be mapped to evaluate probability of slope failure.

Page 5-6, 5.1.1.6

The EIS does not assess the impact of the draw downs may have on fall passage adult spawning kokanee in the Sanpoil River. This may require dredging near the confluence of the Sanpoil River to maintain passage.

Pages 5-5 through 5-8. In addressing the subject of total dissolved gases, the DEIS does not appear to provide sufficient discussion of the existing baseline, including the current impact of Canadian dams on total dissolved gases extending to Grand Coulee Dam. The subject is not addressed in the cumulative impacts sections (4.3 and 5.5). More discussion of the issue is needed.

Water temperature has been addressed properly in the draft EIS in numerous locations, but conclusions that flow augmentation will reduce temperatures (for example at page 5-8) requires more support and analysis than provided. The generalized conclusion that increased flows will reduce temperature is reached elsewhere in the draft EIS and is unsupported. Other structural and management practices at Grand Coulee Dam and at other locations along the Columbia River mainstem may have greater potential for temperature improvement than flow augmentation. The draft EIS does not establish a baseline from which to measure the marginal and cumulative impacts on temperature of Columbia River Management Plan alternatives.

Page 6-16, 6.2.8

See comment at 2.2.9 above.

Page 6-22, 6.2.12

See comment at 2.2.13 above.

D. Cultural, Archaeological, and Historic Resources

The Colville Tribes' Historic Preservation Office and History and Archaeology reviewed the October 5, 2006 Washington State Department of Ecology Publication # 06-11-030: Draft Programmatic Environmental Impact Statement for the Columbia River Water Management Program (CRWMP). This proposed undertaking is of such a massive scale with numerous direct and indirect impacts that it is beyond our ability to understand fully without proper planning and consultation. The purported area of potential effect is all of Eastern Washington. Our comments follow:

- Under various cultural resource laws, but most particularly SEPA, Washington State EO 05-05, the Centennial Accord, NEPA, National Historic Preservation Act, EO 11593, EO 13175 and EO 12898, there must be consultation with tribes and Tribal Historic Preservation Officers. Recommendation – the various state and federal agencies organize and fund a cultural resources working group of all concerned parties to address cultural resource management issues. There may

need to be two groups, one with clearance to discuss archaeological, traditional, and sensitive (burials and cemeteries) site specific issues. This group would consist only of agency and tribal representatives. The second group would be comprised of all groups and individuals with heritage issues and concerns; it might include recreationists, businesses, historical groups, museums, etc.

- The VRA with irrigators held no specific cultural concern, but any associated actions would require review, analysis and possible mitigation. Recommendation – review actions in the working groups described in the first bullet.

We addressed the Lake Roosevelt drawdown issue with the CCT Columbia River Initiative working group on several occasions. See summary at the end of this section captioned Summary of Earlier Impact Analyses.

- On September 27, 2006, we sent Derek Sandison of Ecology a letter pointing out a lack of consultation on the off-channel reservoirs, reminding Ecology of their responsibilities under various laws and requesting a meeting. Mr. Sandison replied the reservoirs are primarily a Reclamation undertaking. Based on Mr. Sandison's response we are making a similar request for consultation to the Bureau of Reclamation. Recommendation – The state and federal agencies should appoint a lead agency or agencies with a 'responsible agency official', as defined in the National Historic Preservation Act, Section 106 implementing regulations 936 CFR Part 800).

- Page 3-80, Section 3.10.1 of the DEIS states EO 05-05 establishes a review process by the Department of Archaeology and Historic Preservation (DAHP) and affected tribes and that Ecology has initiated the review process with DAHP. Recommendation – initiate the review process with affected tribes.

- Page 3-80, Section 3.10.1 also discusses federal involvement. Recommendation – federal consultation needs to be initiated.

- Page 3-81, Section 3.10.2 states archaeological resources could date between 11,000 years before present to AD 1800. This is not specifically correct, archaeological resources need only be 100 years old, thus AD 1906. Other cultural resources and other mandates and regulations suggest that there is not absolute age cut off. Recommendation – re-word the document to reflect a fuller understanding of the pertinent laws.

- Page 3-82, Section 3.10.2 includes a table of properties at reservoir sites. Given the area of potential effect, several reservoirs are not listed: Lower Monumental, Little Goose, Lower Granite, Lake Chelan, Roza, etc. Recommendation – Need to better define the area of potential effect or include more reservoirs in the document.

3-54 Page 4-25, Section 4.1.1.9 discusses mitigation of adverse impacts to cultural resources, a cultural resources management plan and a programmatic agreement. The document does not emphasize the potential difficulties involved in implementing these broad suggestions. Coordination on the scale discussed will take a massive effort. Recommendation – Develop the cultural resource working groups recommended earlier and provide them with the funding and professional support needed to start addressing these issues now.

3-55 Page 5-10, Section 5.1.1.9, regarding Lake Roosevelt drawdown states, “No short-term impacts to cultural resources are anticipated as a result of additional drawdowns within the normal range of reservoir operation fluctuations.” This is a good example of the inability of the drafters of the impact statement to appreciate the impacts anticipated. This response reflects and may have even been forwarded by Reclamation employees that view Lake Roosevelt impacts as occurring within an ‘envelope’ between elevations 1220’ and 1290’. Regardless of the nature, size, or periodicity of impacts, they are all viewed as occurring in the same envelope so there is no distinction or difference in impacts to cultural resources within that zone. See below where we have addressed this very issue at Lake Roosevelt for a proposed summer drawdown.

3-56 In the past we requested federal agencies fund a full time cultural resource position to address all the various impacts associated with reservoir operations and fish-recovery throughout the Columbia River Basin for flow augmentation, VARQ, irrigation, recreation, habitat plans, etc. We were denied. Once again, this suggestion seems reasonable and prudent.

Summary of Earlier Impact Analyses

Additional Lake Roosevelt Drawdowns

Drawdown creates increased erosion to and exposure of banks and sediments during the peak recreation period. This increases the number and visibility of archaeological materials and human remains. Wakes and shoreline recreation related to boat and jet-ski activities will result in increased erosion because impacts will not be along vegetated shores and high water erosion protection. More erosion, more exposure, more people means archaeological and burial site materials will be exposed.

- 3-57
- Summer drawdown would require enhanced Archaeological Resource Protection Act patrols.
 - Summer drawdown would require Archaeological Monitoring during August (the last month of the drawdown)
 - Increased erosion will result in increased inadvertent discoveries of Human Remains
 - Increased erosion will result in loss of traditional sites requiring additional Traditional Cultural Property Studies

- 3-57
- Costs for these mitigation actions on an annual basis are estimated to approach \$100,000.00

Off-Channel Storage Assessment

We reviewed the several proposed off-channel sites. Of the 11 feasible candidate locations identified in the December 2005 WS Ecology and Reclamation Mainstem Off-Channel Storage Assessment report, all but Alder Creek, Rock Creek and Kalama River are in the traditional territory of the CCT.

- 3-58
- We predict the traditional community will be strongly opposed to any such developments.
 - A standard measure for cultural resource costs for federal undertakings are up to 1% of total appropriations (Archeological and Historic Preservation Act of 1974 (7a)). There would be subsequent costs for annual work. Based on the 1% figure, costs for initial cultural resource work could range in the millions of dollars.

Areas of Additional Concern now include state agencies for the whole CRWMP

- 3-59
- Coordination with federal agencies. It is imperative to coordinate with federal agencies with the same or similar responsibilities in the Lake Roosevelt reservoir for efficiency and to avoid duplication of effort. However, it is important to avoid over complication and slow down of the process often created at the technical level at a cost to overall management and policy goals.
 - Site stabilization. Archaeological, ethnographic and traditional places eroding into the reservoir must often be stabilized. Previous shoreline stabilization efforts proved complicated, time consuming and costly. It will be important to identify sites requiring protection, assign responsibility for protection, prioritize protection areas and develop a long-range plan considering fiscal and engineering factors. We estimate site protection costs at \$1,000,000.00 at one or two sites per 5-year period.
 - It is important to remain flexible in any agreements. As the impacts of the undertaking are better understood, as new concerns arise and other concerns are resolved, and as costs change, there must be a mechanism with the structure of any agreements to revisit and modify understandings between parties.
 - Historic preservation officer concurrence with process. As with any undertaking involving federal and tribal lands, it is imperative to follow the National Historic Preservation Act, Section 106 implementing process. This will mean the early and continued involvement of, consultation with and concurrence by the State Historic Preservation Officer and the Tribal Historic Preservation Officers.

E. Conclusion

- 3-60
- In closing, the Colville Tribes appreciates the opportunity to comment and looks forward to a continued constructive relationship with Ecology in implementation of the AIP and CRWMP.

Comment Letter No. 3 – Confederated Tribes of the Colville Reservation

- 3-1. Comment noted. The Confederated Tribes are welcome to comment on all future proposals.
- 3-2. Comment noted. Ecology will continue to coordinate closely with the Confederated Tribes.
- 3-3. Information has been added to Section S.3.2.1 regarding mitigation requirements in the Agreement in Principle.
- 3-4. The spelling error has been corrected in the Final EIS text.
- 3-5. This is noted in the first paragraph of Section 2.5.1 on the previous page. Additional information on the development of a Memorandum of Agreement has been added.
- 3-6. Additional information has been added to Sections 3.1 and 3.9.4.1 regarding the Colville Reservation, the Spokane Reservation, and the Lake Roosevelt National Recreation Area.
- 3-7. Table 3-3 in Section 3.4.1.1 is taken from a report by the National Resources Council 2004. It is not intended to be specific to the Colville Tribes. Rather it reports on agreements affecting Columbia River Basin stream flows, including the quantity of stream flow required in the agreement. Significantly, for purposes of management of the Columbia River, tribal treaties do not specify the quantity of the tribes' water rights.
- 3-8. Comment noted. Table 3-14 has been changed to reflect this comment.
- 3-9. Text has been added to Appendix D, Trust Water Rights to address this comment.
- 3-10. Comment noted.
- 3-11. Comment noted. See Responses to comments 1-2 and 1-3.
- 3-12. The Final EIS text has been revised as requested.
- 3-13. The new bullet has been added as requested. Information on the impacts has also been added to Section 5.1.2.12.
- 3-14. Section S.3.2.1 is a summary section and highlights the general impacts of the project. Impacts to the items listed in your comment are addressed in Sections 5.1.1 and 5.1.2. Additional impact analysis will be provided in the Supplemental EIS on Lake Roosevelt drawdowns.
- 3-15. Potential impacts to shrub steppe habitat are noted in Section 4.1.1.6. See also the response to Comments 1-84 and 1-85. Additional information on shrub steppe habitat has been added to the Final EIS text.

- 3-16. The bullets in Section 1.3.1.4 are a summary of the economic report prepared by Huppert et al. Your suggested text has not been added to the summary because this conclusion was not included in that report. However, as noted in Comment 3-13, information on the Settlement Agreement has been added to Sections S.3.2.1 and 5.1.2.12.
- 3-17. Only the Black Rock Reservoir proposal would result in pumping of water from the Priest Rapids pool. Water from the approximately 1 million acre-foot Black Rock Reservoir would be used to replace water currently being diverted from the Yakima River, thus improving stream flows during the irrigation season. The proposed Wymer Reservoir is an alternative to the Black Rock Reservoir; both are alternatives in the Yakima Basin Water Storage Feasibility Study being developed by Reclamation. Diversions to the Wymer reservoir would occur at times of the year other than the irrigation season.
- 3-18. As noted in Section 2.1.2.1, The Okanogan PUD and Okanogan County have proposed that Ecology consider funding an Appraisal Study of a storage project on the Similkameen River. This project would undergo separate environmental review under SEPA. That review would include impacts to spawning habitat.
- 3-19. The first inventory and supply and demand forecast was released in November 2006. Because of statutory limits on the amount of time available to complete these initial reports, it is acknowledged that some valuable information was omitted. However, Ecology intends to gather additional data for subsequent reports, including that which may be available from the Colville Tribes.
- 3-20. Ecology has revised the Policy Alternatives based on input from the Columbia River Policy Group and others. The revised policies, including funding for conservation projects, are included in Chapter 6.
- 3-21. Comment noted. Ecology concurs with the need for such a meeting.
- 3-22. Ecology has elected to include exempt uses in its information system. This inventory will be phased in and will first include the information available in electronic formats.
- 3-23. Comment noted. Ecology will continue to work closely with the tribes and Reclamation.
- 3-24. The description of the drawdown in Section 2.5.1.1 has been revised and additional discussion of the drawdown provided. Additional information and analysis will be provided in the Supplemental EIS that Ecology will be preparing on the Lake Roosevelt drawdown.
- 3-25. Ecology has reviewed the preliminary results of the study prepared by the Confederated Tribes. Based on those preliminary results, Ecology has determined that the Lake Roosevelt project has the potential for significant environmental impacts and will prepare a Supplemental EIS on the project. Ecology will continue to work closely with the Tribes to prepare the Supplemental EIS.

- 3-26. Section 3.5.3.1 describes the impacts of the Lake Roosevelt drawdowns on groundwater. The Odessa Subarea Study is a separate process being undertaken by Reclamation. However, the Odessa Subarea is included in this section because water from Lake Roosevelt drawdowns will be applied to the Odessa area. Reclamation's Plan of Study for the Odessa Subarea is referenced because it is the most recent information on groundwater in the Odessa Subarea. The Final EIS text has been revised to clarify this section.
- 3-27. See the response to Comment 3-8.
- 3-28. Text has been added to section "4.1.1.1 Socioeconomics–Long-Term Impacts" to address possible impacts on Confederated Tribes' annual stream of revenue received from BPA for lands needed by the United States for Grand Coulee Dam and Lake Roosevelt and taken from the Colville Reservation.
- 3-29. The requested changes have been made in section "3.2.2.1 Value of Goods and Services."
- 3-30. Section 3.9.4.1 has been revised to clarify the relation of Lake Roosevelt to tribal lands.
- 3-31. See the response to Comment 2-19.
- 3-32. Information on the Settlement Agreement has been added to Section 5.1.1.12, Public Utilities and Section 4.1.1.7, Socioeconomics.
- 3-33. Mitigation measures for water quality impacts are described in the Mitigation section that follows the Impacts discussion. Specific mitigation measures will be developed during project-level evaluations of any proposed projects.
- 3-34. The Final EIS text has been changed as requested.
- 3-35. Comment noted.
- 3-36. The requested text has been added to the Final EIS.
- 3-37. Specific impacts will be determined during future environmental reviews. Section 4.1.2.6 is a general discussion of the range of potential impacts that could be associated with conservation projects.
- 3-38. Comment noted.
- 3-39. The proposed change in reservoir elevation totaling 1-1.5 feet is relatively minor when compared with the existing reservoir operation, and falls within the existing range of reservoir drawdown operation of between 20 and 82 feet. It is not anticipated that any additional significant sloughing may result beyond the current condition, because the proposed reservoir change is so small and falls within the existing range of reservoir operation. However, additional evaluation of the potential for sloughing will be done as part of the Supplemental EIS for the proposed Lake Roosevelt Drawdown.

- 3-40. The DEIS discusses the effects of added risk to keeping the reservoir at 1,283 feet elevation and above for access of fall spawning kokanee to tributary waters during wet years (Section 5.1.1.6; Fall Drawdown). The Sanpoil River was not specifically mentioned, but was intended to be included in an all-encompassing nature. Specific reference to the Sanpoil River has been added to the FEIS. Additional information on kokanee will be addressed in the Supplemental EIS that Ecology will prepare on Lake Roosevelt drawdowns.
- 3-41. Additional baseline information on total dissolved gases (TDG) levels has been added to the FEIS in Section 3.4.2 under the subheading Total Dissolved Gas. A discussion of potential cumulative impacts of TDG has been added to Sections 4.3 and 5.5. The increased discharge from Lake Roosevelt is not likely to result in increased levels of TDG because the flow releases are expected to be small relative to the normal releases from Grand Coulee (see the new Flow Release Table in Section 2.6.1 of the Final EIS). Additional baseline information on TDG, including the current impact of Canadian dams, will be included in the Supplemental EIS and potential impacts will be further evaluated.
- 3-42. Section 5.1.2.3 discusses the potential increase in flow resulting from additional withdrawals from Lake Roosevelt. The generalized conclusion is that the increase in flow will depend on how the water is released, but assuming that all instream flow storage in Lake Roosevelt is released over a two-month period, the maximum additional release in July and August in a drought year would be approximately 834 cfs as compared to a mean monthly flow in the River during a drought year of 50,590 cfs. This is a small overall flow increase. Section 5.1.2.3 also states that it is possible that **small** improvements to water quality in the Columbia River **could** occur from increased releases from Lake Roosevelt. The Final EIS text has been revised to state that temperature impacts of Lake Roosevelt discharge on receiving waters will be assessed as part of the Supplemental EIS that Ecology will prepare on the Lake Roosevelt drawdowns.
- 3-43. See the response to Comment 3-21.
- 3-44. See the response to Comment 3-22.
- 3-45. Comment noted.
- 3-46. See response to comment 1-54.
- 3-47. See the response to Comment 3-46.
- 3-48. Comment noted; refer to the response to Comment 3-57 below.
- 3-49. Comment noted. Ecology will continue to coordinate with the Confederated Tribes and Reclamation regarding the off-channel reservoirs. Because Section 106 is a federal requirement, Reclamation would be the lead agency.
- 3-50. Tribal consultation under Executive Order 05-05 will be initiated when project specific environmental review is conducted. Ongoing coordination and discussions with the Confederated Tribes will continue.

- 3-51. Federal consultation will be initiated when project specific environmental review is conducted. Ongoing coordination and discussion will continue.
- 3-52. Text has been changed to reflect this comment.
- 3-53. Table 3-26 focuses on Columbia River dams and was not meant to be inclusive of all the dams in the region, rather to provide background for considering a new reservoir. Additional text has been added to Section 3.10.2 to clarify the intent of the table. Defining the area of potential effects is not possible at the programmatic level and will be conducted at the project level.
- 3-54. It is acknowledged that coordination efforts will be significant and should start early in the process. See also the response to Comment 3-46.
- 3-55. Ecology has determined that impacts of Lake Roosevelt drawdowns need further analysis and will prepare a Supplemental EIS on the drawdowns.
- 3-56. Comment noted. Through the process of developing the Cultural Resources Management Plan described in response to comment 1-54, Ecology will evaluate this recommendation.
- 3-57. These potential impacts are noted in Section 5.1.1.9. Site specific impacts will be identified as part of the Supplemental EIS for Lake Roosevelt drawdowns. Mitigation for any identified impacts will be negotiated as part of the Memorandum of Agreement that will be developed between the state and the Colville Tribes. The mitigation measures suggested in this comment will be discussed at that time.
- 3-58. Comment noted.
- 3-59. Comment noted. See the response to Comment 3-57. Ecology will continue to coordinate with the Confederated Tribes and with federal agencies involved in the management of Lake Roosevelt.
- 3-60. Comment noted.

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November 22, 2006

Derek I. Sandison, Regional Director
Central Regional Office
Washington State Department of Ecology
15 West Yakima Avenue, Suite 200
Yakima, WA 98902

Re: Spokane Tribe of Indians' comments on Draft Programmatic EIS for the Columbia River Water Management Program

Dear Mr. Sandison:

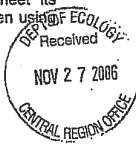
The Spokane Tribe of Indians' connection to the Columbia River and its upriver tributaries date from time immemorial, and is deeper than any others in what is known today as eastern Washington. This letter and the attachments are submitted on the Tribe's behalf to express its concerns arising from that deep connection with the Washington State Department of Ecology's Draft Programmatic EIS for the Columbia River Water Management Program ("Draft EIS").

Background

The Spokane Tribe of Indians' physical and spiritual dependence on area streams and natural resources is well documented. Known by neighboring tribes as a salmon people, the Spokane ancestral lands ran the length of the Spokane River, from the Columbia to Lake Coeur d'Alene. In 1877, Tribal leaders entered an agreement with the U.S. War Department establishing the Spokane Indian Reservation at the two rivers' confluence. Four years later, President Rutherford B. Hayes by Executive Order uniquely set the reservation's boundaries at the far banks of its border waters, ensuring that they and their resources would forever be a part of the Tribe's permanent homeland. But during the century that followed, dramatic and unforeseen change came to the Spokane through non-Indian settlement, Washington's statehood, the Grand Coulee dam and mining activities, both on- and off-Reservation.

The Tribe's survival during the 129 years following its Reservation's establishment may be credited to the Spokane's ancestors, both for the physical and spiritual sustenance drawn from the homeland they reserved, and for the culture and the distinction it gives them in their place. The Spokane continue to honor their ancestors by living their religion and culture. With that comes an ongoing physical and spiritual reliance on the mountains, waters, fish, wildlife, and plants – all of the natural resources their ancestral homeland provides. Many tribal members use these resources to the near exclusion of the outside to fulfill food, medicine, spiritual and cultural needs that revere the waters and the life they give. Some, in continuing honor of their ancestors' ways, perform almost daily sweat lodge and other ceremonies. Although the salmon no longer make their way to the Spokane Reservation, they continue to be valued by the people and honored in their ceremonies.

It is the Tribe's modern policy to ensure the Reservation's resources are available to meet its membership's physical and spiritual needs, and to aggressively protect the Spokane people when using



4-2 those resources in the ways promised to their ancestors. The proposals considered in the Draft EIS potentially jeopardize many interests of critical importance to the Spokane people's future.

Water Quantity

4-3 Over twenty-five years ago, the United States filed a federal lawsuit to protect the Spokane Tribe's rights to the waters of Chamokane Creek, which forms the Reservation's eastern boundary. The *U.S. v. Anderson* adjudication ultimately included the Spokane Tribe, the Washington Departments of Ecology and Natural Resources, and various basin water users as well. The court determined the Tribe is entitled to sufficient surface- and groundwaters to fulfill the agriculture and fishery purposes of the Reservation. Although the adjudication was limited to Chamokane Creek, the federal doctrine of impliedly reserved water rights, on which the *Anderson* court relied, applies with equal force to the Spokane and Columbia Rivers. Thus, any assessments of proposed state or federal actions that might affect the availability of the Tribe's waters to satisfy its Reservation's purposes must include analyses of the potential for such impacts. The Draft EIS does not do so.

4-4 The proposed Lake Roosevelt drawdowns will affect surface- and groundwater flows of the Spokane and Columbia Rivers, and may have hydrologic effects in the Chamokane Creek basin as well. The EIS needs to include analyses of these impacts. For example, what effect will the drawdowns have on domestic or community wells along the Columbia River and its tributaries? What effect will they have on groundwater storage and the timing of groundwater releases to surface water flows? The potential hydrologic impacts the proposed Hawk Creek dam would have on the Columbia River and its tributaries must also be assessed, including both surface- and groundwater impacts.

4-5 Ecology should also consider potential mitigation measures for negative impacts caused by the proposed actions. In addition to the water quantity impacts just discussed, the Volunteer Regional Agreement appears to focus mitigation on the months of July and August. Its impacts, however, are likely to extend beyond the two summer months, and should be addressed. Finally, Ecology should take great care to not mislead its water users into believing their rights are secure when tribal rights up and down the system will be senior to all.

Water Quality

For several years, the Spokane Tribe has worked closely with the Confederated Tribes of the Colville Indian Reservation, the State of Washington, and various United States agencies, in an intergovernmental effort to clean up hazardous substances released from Teck Cominco's Trall, British Columbia, smelting facility. Over a 100-year span, the company dumped countless tons of mercury-dominated heavy metals into the Columbia River, which then carried the contaminants downstream to Washington and the Colville and Spokane Reservations. As the suspended metals settle, concentrations increase toward the bottom of the river and reservoir systems. The Draft EIS fails to consider and address the effects its proposed actions will have on the Columbia River's water quality with respect to the metals released by Teck Cominco.

4-6 The drawdowns proposed for Lake Roosevelt will undoubtedly re-suspend hazardous substances that have settled in the reservoir. What metals are more likely to be re-suspended, and in what concentrations? Will re-suspended hazardous substances be in solid or dissolved form? How does the timing of the drawdown affect the re-suspension of the hazardous substances? Will a deeper drawdown to a lower elevation suspend more of the hazardous substances due to the manner in which they have settled? Will the drawdown result in the surfacing of groundwaters causing the re-release of hazardous substances? Will flow rates affect the how long the metals remain suspended? Where will the various re-suspended hazardous substances settle? Will the Grand Coulee dam cause the metals to settle there? The EIS must analyze these and other impacts related to the re-suspension of Teck Cominco's hazardous substances.

Air Quality

4-7 The drawdowns will have other effects related to the hazardous substances released by Teck Cominco. As mentioned above, when the metals settle, they concentrate toward the bottom of the river and

reservoir systems – the deeper the drawdown, the higher the metals concentrations in the exposed beaches. As those beaches dry, their soils and the hazardous substances that settled there will be vulnerable to the winds. The Draft EIS does not consider and address these effects.

- 4-7 What are the metals concentrations in the beach areas that will be exposed by the deeper drawdowns proposed for Lake Roosevelt? What metals are more likely to be taken up by the wind, and how will they affect air quality? What locations will wind-blown contaminants be a greater problem due to higher metals concentrations or higher frequency or velocity of winds? These, and related questions must be assessed.

Wildlife and Fish

- 4-8 The soils, water and air quality issues described above present possible exposure concerns for wildlife and fish in and near Lake Roosevelt that are not adequately analyzed in the Draft EIS. What are the risks to the fish and wildlife that ingest the waters that carry re-suspended hazardous substances? What are the risks to wildlife that ingest air laden with wind-blown contaminants? What are the risks to wildlife that ingest contaminated fish or plants on which wind-blown contaminated dust has settled? Additionally, wildlife using beach areas during the drawdown periods will be further exposed to hazardous substances through the ingestion of soils as plants and insects are sought and consumed. The risks to such wildlife should be examined as related to contaminated areas exposed by the drawdowns in combination with the risks related to the ordinary operations of Grand Coulee dam.

- 4-9 Furthermore, the Spokane Tribe has committed substantial resources to building and protecting Lake Roosevelt's resident fishery – an effort that benefits both tribal members and non-tribal members. The potential for additional losses of these fish due to the proposed increased drawdowns is of great concern to the Spokane. Although the Draft EIS mentions the Colville Tribes' interests in this regard, no mention is made of the Spokane's interests.

The EIS should consider and address these and related potential impacts that the proposed drawdowns will have on fish and wildlife.

Human Health

- 4-10 The ecological risk factors discussed above implicate human health considerations that are not included in the Draft EIS. As explained in the background section, Spokane Tribal members are more closely connected to the waters and natural resources of the Reservation than are others. As a consequence, Tribal member exposure to hazardous substances in the natural environment is intensified in several critical ways. Importantly, the Spokane people do not fall within the category of recreational user, who might be exposed to the contaminants of concern for a few days to a couple of weeks per year. Instead, Spokane Tribal members who reside near Lake Roosevelt or who regularly use its resources for subsistence and cultural purposes will be directly exposed to the air, water and beaches for substantially longer periods. Add to the duration of direct exposure the fact that Tribal members will consume more potentially contaminated fish, wildlife and plants, and are more likely to directly ingest the waters, and it becomes clear that the risk to their health is significantly more extensive.

When examining the potential risk posed to Spokane Tribal members by the proposed actions, it will be important to understand the exposure pathways unique to the Tribe. The necessary considerations are contained in a document entitled: *The Spokane Tribe's Multipathway Subsistence Exposure Scenario and Screening Level RME*. The EIS should consider and address these risks in the proper context of the media of concern and exposure pathways discussed in this document.

Landslides

- 4-11 Since Grand Coulee began operating, the Spokane Indian Reservation has suffered the loss of several acres of lands that sloughed into the reservoir due to the erosive actions of Lake Roosevelt's waters. A substantial amount of these losses occurred decades after the waters first rose behind the dam, suggesting assumptions made in the Draft EIS regarding this potential may be inaccurate. Thus the Draft EIS does not adequately consider the potential for further sloughing related to the drawdowns.

- 4-11 Furthermore, it fails to address possible mitigation measures for lost Tribal lands. These deficiencies should be addressed.

Culture

- 4-12 As discussed above, the Spokane were a salmon people. And while the salmon no longer reach the Spokane Tribe's waters, there remains a close physical and spiritual connection to the streams and their resources. Understandably, many of the Spokane people's ceremonies involve their waters. For example, burials were often performed along the streams – undoubtedly post-dating the 1800 data referenced in the Draft EIS. As a consequence, there exist many burial and other cultural and spiritual sites in areas that would be affected by the proposed actions, including both the Hawk Creek dam and Lake Roosevelt's drawdowns. The Draft EIS fails to adequately consider these impacts. Further, in addition to the laws cited in the Draft EIS that bear on cultural resource issues, Ecology should consider the potential applicability of the Archaeological Resource Protection Act, 16 U.S.C. 470aa-470mm, and the American Indian Religious Freedom Act, 42 U.S.C. Secs. 1996, 1996a.

Additional Considerations

It was explained earlier that the Spokane Tribe, as a sovereign, actively seeks to protect its people and resources. In so doing, the Tribe works on a government-to-government basis with the federal and state governments. It is in that spirit that the following additional comments are offered for consideration.

- 4-13 In several places, the Draft EIS identifies and discusses the Colville Tribes' Lake Roosevelt and Grand Coulee related interests. For example, the Draft EIS covers at some length the agreement in principle entered between the Colville Tribes and the State. It should be noted that the Spokane Tribe possesses interests in the Columbia and Spokane Rivers similar to those of the Colville Tribes. In fact, the Spokane Tribe's Grand Coulee related losses were proportionally greater than those of the Colville Tribes. And while it is true that the Spokane Tribe has not entered an agreement in principle as the Colville Tribes have, it is also true that the Spokane Tribe was not approached by Ecology until after the Colville agreement was reached, and that contact was minimal. Ecology is well aware that the Spokane Tribe is deeply concerned about Lake Roosevelt and should seek to more thoroughly consider and address the Spokane interests through closer coordination. The intergovernmental consultation inadequacies caused by conflicting schedules should not stand to justify the deficient treatment of Spokane interests in the Draft EIS. The Spokane Tribal government is underfunded, its staff overworked. Beyond the issues discussed above of human and environmental health and water rights, the Tribe's concerns include Grand Coulee's operations, mining and industrial related contamination, and various jurisdictional issues. The reservation's location at the confluence of the Spokane and Columbia Rivers places the Tribe in the crosshairs of several Superfund caliber sites, further depleting the Tribe's limited resources. But despite these pressures on Tribal staff, better communication would undoubtedly have yielded better results in arranging consultation opportunities. The Tribe will continue to exercise its sovereign prerogatives in connection with these issues. Ideally, the opportunity will exist for the Tribe to do so in coordination with the State of Washington.

- 4-14 One issue on which the State and Tribe have coordinated during recent years is Teck Cominco's contamination of the Upper Columbia. Although the Tribe has not formally intervened in the State's and Colville Tribes' litigation against the company, it has submitted an amicus brief supporting the State, and directly participated in negotiations the various involved governments have held with Teck Cominco. Given the State's position in this litigation, it is interesting that the potential re-mobilization of contaminated sediments received no attention in the Draft EIS. Given this possibility, perhaps the Comprehensive Environmental Response, Compensation and Liability Act should be among the laws considered potentially applicable.

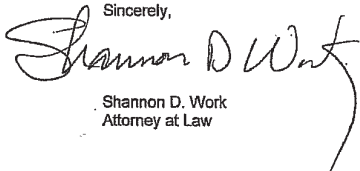
- 4-16 Finally, there are a number of inaccurate or misleading statements in the Draft EIS concerning the legal status of various affected tribes, their reservations and their lands. Importantly, there exists no legal distinction between treaty tribes and those, like the Spokane, whose reservations were formalized by Executive Order. See, Sections 3.9.3, 3.10.2.3, Table 3-3. As the Supreme Court stated in 1963: "We can give but short shrift at this late date to the argument that the reservations either of land or water are invalid because they were originally set apart by the Executive." *Arizona v. California*, 373 U.S. 546

4-16 (1963). It should also be noted that while allotted lands on Indian reservations may be individually held, such lands are also held in trust by the United States. See, Table 3-14 (distinguishing between "acres held in trust" and "additional acres held as allotments").

Conclusion

4-17 The federal courts have recognized that at times states have been the worst enemies of Indian tribes. Washington's history with the tribes within its boundaries stands as an example of this, and the state has more than once found itself on the opposite side of court room from the Spokane. In recent years, however, Washington and the Spokane Tribe have found that coordination and cooperation can yield good relations and positive results, with greater benefit to the citizens of both. The Spokane Tribe remains hopeful that such can be the case concerning the waters of Lake Roosevelt and the Upper Columbia system.

Sincerely,



Shannon D. Work
Attorney at Law

cc: Rick Sherwood, Chairman, Spokane Tribal Business Council
Warren Seyler, Vice-Chairman, Spokane Tribal Business Council
Gerald Nicodemus, Secretary, Spokane Tribal Business Council
Richard Garry, Member, Spokane Tribal Business Council
Matt Wynne, Member, Spokane Tribal Business Council
Rudy Peone, Director, Spokane Tribe Dept. of Natural Resources
George Hill, Director, Spokane Tribe Culture Dept.
Brian Crossley
Deanne Pavlik-Kunkel

COMMENTS FROM STOI CULTURE PROGRAM NOVEMBER 17, 2006

Submitted by George Hill, STOI Culture Program Director

- 4-18
1. Ramping of the water levels within Lake Roosevelt Reservoir creates erosion along the exposed beaches. The erosion is created by the wind when the beaches are exposed and the ramping of the water levels speeds up the erosion process. This erosion exposes cultural resources to "Pot Hunters", and vandalism. Also once the cultural resources are exposed to weather their deterioration speeds up and important data is lost forever. The exposed cultural resources are also moved from place to place by the wind and the water thus the site loses its integrity and the cultural resource is lost forever. Not only are cultural resources lost this way our ancestral burials are lost or damaged by the same process. The exposure of the ancestral remains and associated funerary objects are favorite items for "Pot Hunters" to collect and sell on the black market.

4-19

 2. Any action such as the state is proposing creates a larger workload for the Tribes to protect the cultural resources. The ARPA Patrols would have to be operated on a year round basis which takes a large amount of money. The state would have to mitigate with the tribes to ensure that the funds would be available for the protection of the cultural resources.

4-20

 3. Exposure of the beaches during peak recreation times in the summer and fall would serve to create new "Pot Hunters". People that normally would not be looking for artifacts or human remains would be tempted to do so just by the fact that the items would be readily visible. People are naturally curious and once that curiosity is piqued you cannot take it back. The problem would even get bigger by word of mouth.

4-21

 4. The proposed action of the state will create a large void within the protection of the cultural resources and ancestral burials in Lake Roosevelt Reservoir. The large financial burden to protect these cultural resources and ancestral burials would become a state responsibility. The state would have to mitigate with the tribes to ensure that funds would be available to provide adequate protection for these resources for as long as the dams exist.



Spokane Tribal Natural Resources

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Entrainment and Elevation Effects on Resident Fish in Lake Roosevelt:

The 82,500 to 132,500 acre-feet (1.0-1.5 feet) of drawdown requested in the EIS were repeatedly identified as being within the normal operating range of the reservoir. However, the timing of the withdrawal is not within the norm, and the proposed action is requesting 1.0-1.5 feet of drawdown in addition to the normal operating range of 10-12 feet already taken from the reservoir for fish flows in the lower and mid-Columbia River. The proposed actions may potentially have considerable adverse effects on the Lake Roosevelt fishery. The proposed action would be taking place when the artificial production program normally releases fish following the start of refill. The current strategy of releasing fish after refill begins has been shown to decrease entrainment. Withdrawing water during this critical period would potentially increase entrainment of hatchery fish.

Low lake elevations have also been shown to negatively impact fish in Lake Roosevelt. The lower elevations proposed will make native species and fish stocked by the artificial production program more vulnerable to predation by forcing fish out of nursery/rearing areas and concentrating them in a smaller pool of water at a time when feeding rates are highest due to higher water temperatures. Lower water elevation will also reduce macroinvertebrate production in the reservoir and tributaries where numbers are already severely depressed as a result of flood control elevations. In addition, lower elevations will potentially dewater eggs, strand young fish, and block resident fish access to available spawning sites. Current program direction has been to use an upper Columbia River kokanee stock in Lake Roosevelt to address genetic integrity concerns in the Upper Columbia River. This stock is more genetically similar to indigenous stocks of the Columbia River, however it is an early spawn stock and additional drawdowns would limit access to available spawning sites. Increased entrainment, predation, reduced food resources, decreased access to spawning areas, and lower larval and juvenile fish survival will reduce the numbers of fish available for recreation and subsistence uses.

Water Retention Effects in Lake Roosevelt:

The EIS mentions retention time in the reservoir, and that it may be affected, but does not address the potentially negative impacts. Productivity in Lake Roosevelt is already significantly delayed as a result of the flood-control drawdown. Productivity begins to increase as flow decreases in the reservoir, allowing plankton to begin reproducing at higher rates and be retained in the reservoir. The proposed actions would negatively impact this on two points:

- 1) Additional withdrawals will decrease retention times, causing reduced production of plankton during the critical period when the food web is being established for the season. As Lake Roosevelt is primarily a pelagically driven system, further reductions in the available forage base in an already nutrient limited system will negatively impact fish survival and growth.
- 2) In the advent that additional water is pushed through Lake Roosevelt as a result of the international treaties, VRA's or new storage facilities, these negative impacts would be more severe.

Economic Impacts:

Lake Roosevelt is one of the most visited lakes in Washington (nearly 350,000 anglers at an economic value of 9.7 million dollars). The economic value of the fishery in Lake Roosevelt will be jeopardized by these actions as it would reduce fish available for recreational and subsistence uses. This will lead to reduced income for the Tribes and other stakeholders around the reservoir.

4-25

While we appreciate the needs of irrigators and fish managers in the lower and mid Columbia River, we feel it is a constant battle to remind lower and mid-river interests that we have needs in the upper Columbia River region as well and are not interested in all downriver water needs being met at the expense of Lake Roosevelt, it's fishery, or the Tribe and stakeholders of Lake Roosevelt.

Temperature

EPA and ECY initiated a temperature TMDL that has been sidetracked by federal dam operators. I have recently reviewed a presentation by BOR that is looking at some of the possibilities of reducing temperature increases at caused by Grand Coulee. Additional drawdowns or off-site storage; either through a new impoundment (ie Hawk Creek) or through bolstering existing ones (ie Banks Lake), could have an adverse affect on temperatures in Lake Roosevelt. This could specifically affect Tribal waters of the lower Spokane River and a portion of the Columbia River.

4-26

Water storage reservoirs, when used for summer irrigation, generally do not stratify and will not be deep enough or maintain a body of water long enough to provide cool waters through stratification and selective withdrawals. When waters do not currently meet Water Quality Standards efforts should be taken to improve water instead of degrading it.

4-27

The overarching intent of this process has been to provide "two buckets for consumption/irrigation while providing one bucket for fish. This proposal appears to only determine that one bucket for fish be applied to those waters below Grand Coulee with total disregard for the fish upstream of Coulee.

Thank-you.

Deanne Pavlik-Kunkel
Lake Roosevelt Fisheries Evaluation Program Manager, Spokane Tribe of Indians.

And

Brian Crossley
Water & Fish Program Manager

Comment Letter No. 4 – Spokane Tribe

- 4-1. Comment noted.
- 4-2. Comment noted.
- 4-3. Ecology has determined that a Supplemental EIS will be prepared to further address impacts of the Lake Roosevelt drawdowns. Potential impacts to the availability of the Spokane Tribe's waters to satisfy reservation purposes will be addressed in the Supplemental EIS.
- 4-4. Impacts to the Chamokane Creek basin will be evaluated in the Supplemental EIS on Lake Roosevelt drawdowns. If Hawk Creek is selected as a feasible reservoir site, additional environmental review will be conducted and hydrologic impacts will be evaluated in detail. See also the Master Response regarding Future Studies for Off Channel Reservoir Proposals.
- 4-5. See the Master Response regarding the July/August mitigation issue. The seniority of tribal water rights is acknowledged in Section 3.6.1.3.
- 4-6. The Teck Cominco contamination is described in Section 3.3.5 and Section 5.1.1.2 as an air quality impact because the most likely impact to occur as the result of additional drawdown of Lake Roosevelt would be the suspension of contaminated particles. As stated in the EIS, the EPA is studying potential impacts and results of that study will be incorporated into the operational procedures for the lake. Other impacts from the contamination and drawdown of Lake Roosevelt are being addressed in a study being prepared by the Colville Tribes. That information will be included in the Supplemental EIS on Lake Roosevelt drawdowns.
- 4-7. See the response to Comment 4-6 regarding inclusion of additional information on the Teck Cominco contamination in the Supplemental EIS.
- 4-8. See the response to Comment 4-6 regarding inclusion of additional information on the Teck Cominco contamination in the Supplemental EIS.
- 4-9. Comment noted. Information on the Spokane Tribe's involvement with Lake Roosevelt resident fish has been included in the Final EIS.
- 4-10. The Supplemental EIS on Lake Roosevelt drawdowns will include information on human health impacts and the exposure pathways identified in the document cited.
- 4-11. See the response to Comment 3-39. The Draft EIS assumptions clearly state the existing conditions of sloughing and outline the potential issues addressing sloughing during the proposed drawdown. As such, no additional mitigation measures are necessary at this time. Should potential impacts be identified during the project-level evaluations conducted for the proposed drawdowns, specific mitigation measures will be developed to address them.
- 4-12. Text in Sections 3.10.1 and 3.2.2 has been updated to reflect this comment. Please refer to a Programmatic EIS Master Response regarding the level of detail in this Programmatic EIS.
- 4-13. The Spokane Tribe's interest in Lake Roosevelt and the Management Program is acknowledged. Ecology continues to invite and welcome Spokane Tribe's participation in the development of the Management Program. Ecology will coordinate with the Spokane

Tribe as the Supplemental EIS on Lake Roosevelt drawdowns is prepared.

- 4-14. See the response to Comment 4-6.
- 4-15. The applicability of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) to the Teck Cominco contamination of Lake Roosevelt is the subject of ongoing legal rulings. The Ninth Circuit Court of Appeals ruled in July 2006 that CERCLA does apply to Teck Cominco even though the contamination originated in Canada. Teck Cominco requested a new hearing on that decision. Ecology will continue to monitor the outcome of this legal ruling to determine if CERCLA requirements are relevant.
- 4-16. A footnote was added to Table 3-3 to address this comment.
- 4-17. Comment noted. Ecology will work to strengthen current coordination efforts and enhance that coordination in the future.
- 4-18. These issues are addressed in Section 5.1.1.9.
- 4-19. Ecology will coordinate with the Spokane Tribe as site specific studies are conducted and to negotiate appropriate mitigation measures.
- 4-20. The issue of increased vandalism is addressed in Section 5.1.1.9.
- 4-21. See the response to Comment 4-19.
- 4-22. Comment noted. The range of potential impact is outlined in the Programmatic EIS. A more detailed discussion of potential impacts to the Lake Roosevelt fishery will be considered in the Supplemental EIS that Ecology will prepare on Lake Roosevelt drawdowns.
- 4-23. See the response to Comment 4-22.
- 4-24. See the response to Comment 4-22.
- 4-25. As noted in Section 5.1.1.7, Ecology anticipates few short-term and no long-term socioeconomic impacts on the local economy from the proposed actions; however, Ecology will further evaluate the potential impacts associated with the proposed drawdowns in the Supplemental EIS. Ecology will continue to coordinate with irrigators and fish managers along the entire length of the Columbia River, to ensure that management approaches are balanced.
- 4-26. It is acknowledged in Section 5.1.1.6 that reduced lake elevations in Lake Roosevelt could result in negative impacts to fish. These and other potential impacts will be discussed in the Supplemental EIS on Lake Roosevelt drawdowns. Temperature impacts of specific reservoirs will be evaluated during project specific environmental review. See the Master Responses regarding Future Studies for Off Channel Reservoir Proposals.
- 4-27. Comment noted.


COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION

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November 22, 2006

Derek I. Sandison
 Central Regional Director
 Washington Department of Ecology
 15 West Yakima Avenue, Suite 200
 Yakima, WA 98902-3452
 dsan461@ecy.wa.gov

RE: Columbia River Water Management Program Draft Programmatic EIS

Dear Mr. Sandison:

The Columbia River Inter-Tribal Fish Commission (CRITFC)¹ appreciates the opportunity to provide comments to Ecology on the Draft Programmatic EIS (DEIS) for the Columbia River Water Management Program and Ecology's willingness to allow us two extra days to file comments.

CRITFC's member tribes have a direct interest in the waters of the Columbia River Basin, as is appropriately noted in the DEIS (at 3-82). All of the CRITFC member tribes have ceded territories that encompass entire large watersheds within the Columbia River Basin, e.g. the Yakima Basin. Each of these tribes exercise treaty rights to take fish from the Columbia River and its tributaries. As supported by a significant body of case law, these treaty rights include off-reservation instream water rights with priority dates that are senior to all other users and that are necessary to protect the biological functions of fish and their habitat.² Adequate instream flow with water of high quality is essential to sustaining healthy and viable salmonid populations, and preserving tribal culture, religion and economies.

The direction that the State of Washington is taking toward growth management is inimical to salmon resource upon which the tribes have depended for millennia. Instead of

¹ In 1977, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, the Nez Perce Tribe, and the Yakama Nation created the Columbia River Inter-Tribal Fish Commission (CRITFC or "Commission"). These four tribes have 1855 treaty rights to take fish that pass their usual and accustomed fishing places. Consequently, it is of critical importance to the tribes to protect and conserve the habitat and life cycle of the fisheries. The Commission functions to protect, promote, and enhance the Columbia River Basin's anadromous fish resources consistent with the treaty-secured interests of its member tribes by formulating a broad, general fisheries program, and providing technical and legal support.

² See, e.g., *United States v. Winans*, 198 U.S. 371 (1905); *Colville Confederated Tribes v. Walton*, 647 F.2d 42 (9th Cir. 1981); *United States v. Adair*, 723 F.2d 1394 (9th Cir. 1984); *Ecology v. Yakima Reservation Irr. Dist.*, 850 P.2d 1306 (Wash. 1993).

implementing actions that require water conservation as a prerequisite to growth and development, it appears that there are no State mechanisms to begin to control growth that threatens to diminish water and salmon resources in tribal ceded areas to the point of extinction.

5-1 While there is a need to reexamine State water resources, the burden of reduced water resources must not fall upon the salmon and other anadromous fish such as sturgeon and Pacific lamprey. It is not as easy to quantify the water needs down to the last cubic foot per second for salmon as it is for new water right consumers. Salmon need ecologically functioning rivers, and flow plays many important roles in this regard. Many of these roles are imperfectly understood due to data limitations. Nevertheless, the greatest danger to salmon and other anadromous fish productivity in the long-term is the constant and cumulative loss of water resources, permit by permit.

5-2 CRITFC has participated in Washington states' processes for several years in order to aid its member tribes in protecting their interests. We incorporate by reference the comments of the Yakama Nation (YN) and the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), and rather than repeat their comments, we hope to add additional observations. We also incorporate by reference our previous comments on Ecology's Columbia Basin Water Supply Inventory (dated November 8, 2006), as well as the attached economic report. Gustanski, et al. 2006.

5-3 Attached you will find more general and specific comments on the DEIS. We attempted to organize our comments to address major issues in the DEIS. However, the document is incredibly awkward in its content and organization. The DEIS tries to do too much for one SEPA document. On the one hand it is supposed to be a "Programmatic" EIS for the CRWMP program, yet, on the other hand, the DEIS only substantively analyzes the three "Early Actions" (the CSRIA VRA, the proposed Lake Roosevelt drawdown and the supplemental feed routes). The scope of this EIS should be narrowed to the scope of the actual substantive analysis which is set forth. Separate SEPA reviews on other actions should be undertaken to focus analysis on the actions described in this DEIS, rather than tying them up in a confusing bundle.

5-4 We thank you for the opportunity to submit these comments and to participate in this process. If you have any questions about our comments, we would be happy to set up a meeting with you to discuss them. Please feel free to contact Julie Carter or Robert Heimith at 503-238-0667.

Sincerely,

Olney Patt, Jr.
 Executive Director
 Columbia River Inter-Tribal Fish Commission

GENERAL COMMENTS
OF THE COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION

The DEIS does not appropriately address the issue of flow.

The CRWMP must address the issue of water flow in order to handle the most basic and fundamental elements of the program, such as defining "no negative impact" (p.2-18). Instead, the DEIS simply notes that "the relationship between flow levels in the Columbia River and salmon survival is not clear." (p. S-10). We believe that there is far, far more clarity about the relationship than the DEIS gives credit. While the relationship is definitely complex, there is a clear flow-velocity- survival relationship; for yearling chinook, steelhead and subyearling chinook that demonstrates that without adequate flow,³ fish will suffer harm through a variety of impacts and survival and stock productivity will be reduced (See Figures 1-4). In addition, September is a critical month for juvenile salmon passage. Most of the basin's adult salmon are also migrating during this month. The DEIS, and indeed, the CRWMP, fails to identify the importance of providing flows in September.

5-5

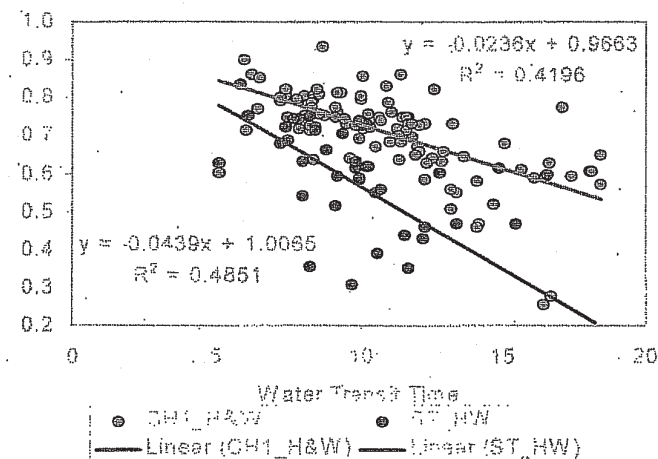


Figure 1. Yearling Chinook and Steelhead – Travel Time versus WIT LGR to McN 1998 to 2005 (Fish Passage Center).

³ "Flow" refers to a volume or quantity of water moving in a stream per unit of time. A common unit of measure for flow is thousand cubic feet of water per second (kcfs). "Velocity" is the distance of a unit of water travels per unit time. Common units are feet per second (fps:ft/sec) or kilometers per day (km/day). From NMFS (1995).

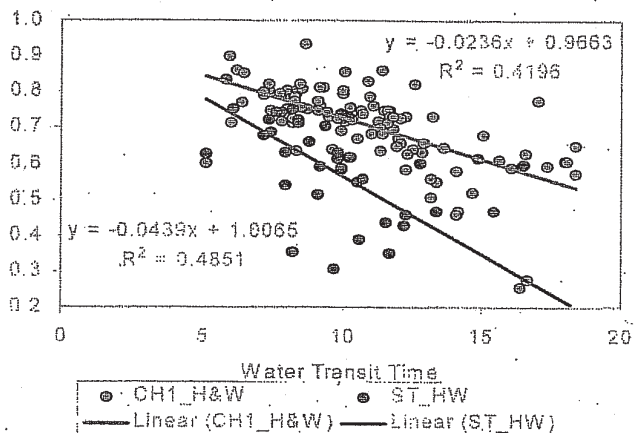


Figure 2. Yearling Chinook and Steelhead – Survival versus WIT LGR to McN 1998 to 2005 (Fish Passage Center).

5-5

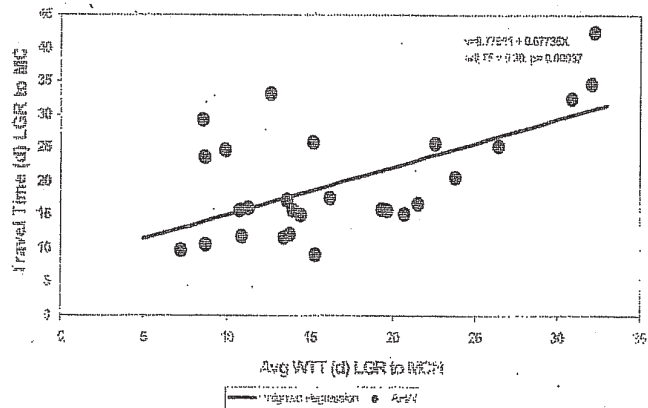
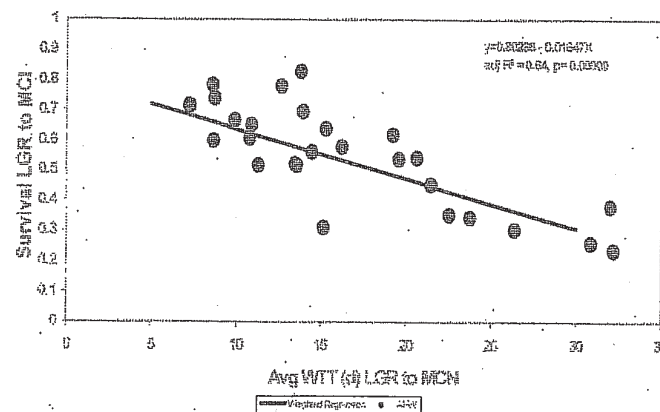


Figure 3. Subyearling Chinook – Travel Time versus WIT Lower Granite Dam to McNary Dam (Fish Passage Center).



5-5

Figure 4. Subyearling Chinook – Survival versus WIT Lower Granite to McNary Dam (Fish Passage Center).

The current “target flows” under the NMFS 2000 and 2004 Biological Opinions for the Federal Columbia River Power System (hereafter, “2000 BiOp” and “2004 BiOp”, respectively) are not adequate to protect anadromous fish spawning, rearing and migratory critical habitat in the mainstem Columbia River. Even these inadequate target flows have not been met since the BiOps were issued. Additional withdrawals from the mainstem Columbia will further reduce critical habitat, lower the probability that the “target flows” will be met, and move the region further from increasing flows from the NMFS target levels that are already inadequate.⁴ We support the comments and technical review of the Fish Passage Center and include their comments by reference with respect to further issues surrounding the impacts of the proposed water withdrawals to anadromous fish populations.

The DEIS fails to note that in March, 2000, the Washington Department of Fish & Wildlife’s concern about additional water withdrawals led them to send a letter to Ecology recommending:

⁴ In the 1995-8 NMFS Biological Opinion for the Federal Columbia River Power System, NMFS attached an analysis, *Basis for flow objectives for operation of the federal Columbia River Power System*. In this attachment, NMFS stated that the flow objectives were “... Low estimates of flow that is likely to avoid high mortality”. In the CRITFC tribes’ *Spirit of the Salmon* restoration plan calls for short (5 years) flow objectives to meet the NWPPC’s 1994 *Strategy for Salmon* sliding scale flows of 300-220 kcfs depending on the runoff year and measured at The Dalles. Long term CRITFC flow objectives (25 years) are directed to meet the 50% exceedence levels at The Dalles and other key points. At The Dalles this is 480 kcfs.

- no additional withdrawals occur during the salmon outmigration season
- cumulative effects analyses be performed before any new water rights are granted
- minimum flows for salmon must be established before water rights are approved

A number of aquatic scientists have considered the benefits of managing stored water and flows in highly regulated large rivers such as in the Columbia Basin to produce a more natural river hydrograph, one that has a high flow peak in the late spring with gradually declining flows (NAS 2004; NRC 2002). In the context of the Columbia River, this flow pattern is intended to at least partially mimic the natural river flows in which salmon and other biota evolved and provides an ecological context for salmon productivity⁵ (ISG 1996). The importance of providing such a flow pulse has been addressed in several reports and studies (Bunn and Arthington 2002; Power et al. 1996; ISG 1996; Junk et al. 1989; Sherwood et al. 1990). Providing a naturally peaking hydrograph is important to increase the quality and quantity of riverine, estuarine and near-shore marine habitat (ISG 1996; Bottom and Jones 2002).

Increasing the flow regime would increase the velocity of the river through the slack water reservoirs that have increased the cross-sectional area of the river. This would have the effect of reducing water particle travel time and correspondingly, juvenile fish migration time to the estuary. Longer juvenile migration times delay saltwater entry, increase exposure to predation and disease, increase energy expenditure (Congleton et al. 2002) and increase residualization in reservoirs (ISG 1996; Bennett 1992). NMFS has noted that only a small proportion of residualized PIT-tagged steelhead survived to successfully migrate the following year (Schiewe 2001).

Reduction of fish travel time to the estuary is an important consideration to increasing spring and summer juvenile survival and adult returns (Marmorek et al. 2004; NOAA 2005; Berggren and Filardo 1993; Cada 1994; Schluchter and Lichatowich 1977; Connor et al. 2003). For example, Counihan et al. (2002) found increased survival probabilities for radio-tagged steelhead with increased discharge at John Day Dam. Plumb et al. (2001) found that yearling chinook and steelhead in the Lower Snake River had a higher frequency of traveling upriver than downriver in 2001 (a low flow year) than in other higher flow years.

Increasing river velocities increases turbidity that has been linked to increased salmon survival and productivity, likely through masking of juvenile salmon from predators (Junge and Oakely 1966; Williams et al. 2005; Plumb et al. 2001). As noted by Ward and Stanford (1989) and Vannote et al. (1980), increased sediment transport also replenishes the organic food base necessary for primary production that is critical for salmonid growth and survival.

The loss of a significant freshwater plume of the Columbia River into the nearshore marine environment from the loss of a peaking hydrograph is likely related to reduced juvenile salmon estuarine and early ocean survival (Sherwood et al. 1990). The historical plume likely provided a source of nutrients for important primary and secondary productivity necessary for

⁵ The ISG (1996) concluded that the establishment of a new hydrograph to more closely match historical hydrographs to which the fish were adapted was an assumption for which there was solid, peer-reviewed empirical evidence.

salmon growth and also provided cover from predators (Brodeur et al. 1992). Increasing juvenile survival in the estuary and the first year at sea has been considered by NMFS as an important objective to reverse current population declines of Snake River spring and summer chinook salmon (Kareiva et al. 2000). A peaking hydrograph would contribute to improving habitat conditions in the river, estuary and near ocean environment for juvenile and adult salmon.

In addition, there is substantial evidence that increased travel times due to reduce flows and increased temperatures increases delayed mortality mechanisms that affect juvenile salmon after they leave the Columbia River (Budy et al. 2002; Marmorek et al. 2004; Petrosky et al. 2006). Figure 5 illustrates the modeled relationship between flows represented by the NMFS seasonal targets, reduced travel time, smolt to adult survival rates (SARs) and three ocean conditions.⁶ While ocean conditions are important to anadromous fish recovery, river flows are also highly influential. In the face of ocean conditions that cannot be controlled, it is critical to provide improved flow regimes. The DEIS fails to consider these issues.

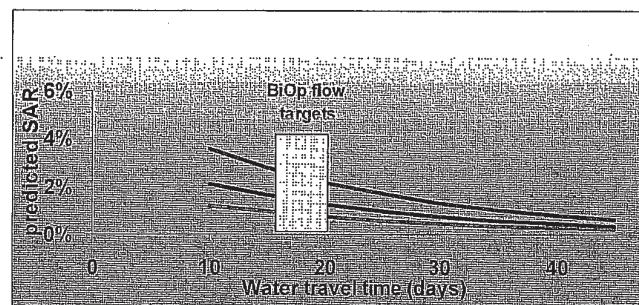


Figure 5. Influence of Water Travel Time and Ocean Effect on Spring/Summer Chinook SAR. The blue line signifies good ocean conditions, the black line average ocean conditions and the red line poor ocean conditions (predicted). (Fish Passage Center)

The State of Washington and Ecology, in particular, must consider the Endangered Species Act, its own state policies regarding threatened, depressed and endangered species and the potential detrimental effects of instream flow reduction on the survival of these species. To our knowledge, no analysis of these impacts has yet to be performed by the State, either in this DEIS or elsewhere.

The 1995-1998 NMFS BiOp stated that the Opinion's seasonal target flows were the *minimum* to prevent jeopardy, and that more flows were important and should be obtained. This

⁶ The Northwest Power Conservation Council and an panel of regional and independent scientists determined that a SAR of 2-6% was necessary to recover ESA listed populations. The Council adopted this goal in their 2000 Fish and Wildlife Program. Current survival rates for listed stocks are well below 2%.

position was carried over into the 2000 and 2004 BiOps (NMFS 1995). In reality, seasonal target flows are not being met in many instances, including this past year. Figure 6 shows the probability of target flows being met for any given year of the historical flow record under current operations. If minimum target flows are considered on a weekly basis, they are missed every year for considerable time periods. Additional mainstem water withdrawals are continuous and occur whether the runoff year is good or bad. Figure 6 indicates that target flows are missed during many periods outside of the July-August period, which are the only months considered critical for salmon in the DEIS. The paradigm of the DEIS where flows during other portions of the year are removed from the Columbia and Snake Rivers for potential storage project or other out of river uses would only exacerbate the ability to meet the minimum target flows, thus preventing survival and recovery of these stocks.

5-5

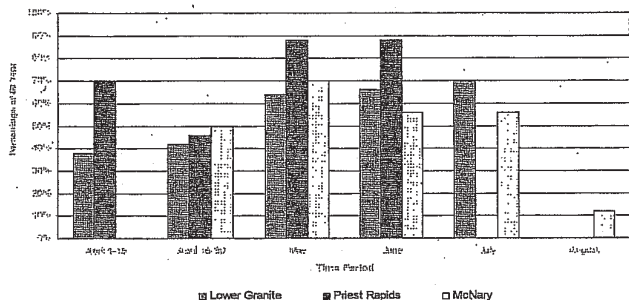


Figure 6. Likelihood of meeting BiOp target flows under current operational conditions. (Fish Passage Center)

The DEIS tends to focus on developing more consumptive water rights, rather than focusing on improving conditions for aquatic resources.

5-6

The status of the Basin's ESA-listed salmonid resources must be the focus for SEPA review. The ESA places the survival and recovery of listed species among the Nation's highest priorities. The ESA should effectively shift priorities to improving the status of the affected resources. This priority starts with a scientifically sound understanding of salmon resource needs and the effects that water resources management has had on individual populations. The DEIS is wholly inadequate in this regard.

As noted above, increases in flow which in turn increase river velocities, turbidity and mainstem habitat and reduce temperatures are critical to salmon and other anadromous fish. The DEIS failed to define the extant precarious state of these fish populations. It is clear that additional flows are necessary to increase fish productivity necessary to meet ESA recovery standards.

5-6

The Interior Columbia Technical Review Team (TRT) filed an Interim Gaps Report on May 17, 2006. They described the abundance and productivity "gaps" for listed ESUs including Snake River spring and summer chinook, steelhead and fall chinook. They also described viable salmon population parameters beside abundance and productivity which includes spatial structure and diversity. The TRT estimated that the change in survival projected required to achieve a 95% chance and a 99% of meeting recovery goals of 3000 naturally producing Snake River fall Chinook adults was between 38-47% and 38-69% respectively (ICTRT 2006).

Of equal concern in the TRT gaps for listed Upper Columbia Spring Chinook. The TRT estimated that the change in productivity projected required to achieve a 95% chance and a 99% of meeting recovery goals of 2000 naturally producing Upper Columbia Spring Chinook adults was between 98-135% and 178-233% respectively (ICTRT 2006). Of even more concern are the TRT estimated changes in productivity projected required to achieve a 95% chance and a 99% of meeting recovery goals of 3000 naturally producing Upper Columbia Steelhead adults between 372-566% and 463-791% respectively (ICTRT 2006).

5-7

For Pacific lamprey, a special species of concern both in the States of Washington and Oregon and already petitioned for listing under the ESA, abundance levels are at an all time low in the historical record, basinwide. Only 35 and 21 adults passed Lower Granite Dam and Wells Dam respectively in 2006. The peak mainstem migration for lamprey occurs in June and early July. These are periods outside the DEIS consideration for flow augmentation. The DEIS fails to consider the impact of water withdrawals on Pacific Lamprey.

5-8

It is important for Ecology to realize that the tribal recovery goals for sustainable, harvestable populations significantly exceed those of NOAA Fisheries under the ESA (Nez Perce et al. 1995). These include, among other things: 1) halting the declining trends in salmon, sturgeon and lamprey populations upstream of Bonneville Dam within 7 years, 2) within 25 years increase total annual salmon returns to Bonneville Dam to 4 million in a manner that provides for sustainable, natural production and tribal ceremonial, subsistence and commercial harvests.

The CRWMP should analyze all options, including storage, in light of what is biologically best for fish and for improving instream water.

5-9

With storage opportunities, it is imperative that Ecology consider and address the impacts and benefits to fish populations and instream water uses. Building new in-channel dams, even for storage purposes, raises a host of issues that ultimately could be detrimental to aquatic life. Off-channel storage, during the time when mainstem water withdrawals are conducted to create the storage, will impact anadromous fish flows during the period when fish are in the mainstem and estuary, which is at all times during the year (Bottom et al. 2002). Listed Snake River fall Chinook recently were discovered to have a "holdover," or reservoir, juvenile life history so that these fish do not leave the Columbia and Snake River until early spring. ESA-listed Snake River and Upper Columbia and Lower Columbia juvenile steelhead often spend one to several years in mainstem reservoirs. Adult steelhead are repeat spawners and need migration flows during the early spring to successfully survive their mainstem migrations back to the ocean.

5-10 As CRITFC has repeatedly stated to Ecology, there is ample existing storage in the Columbia River Basin (over 30 MAF). What is key that is not examined in the DEIS is modifying current, overly conservative flood control management that flushes significant portions of water in the winter from storage reservoirs. This eliminates the possibility of use of this storage during the spring and summer months. Improvements to flood control and use of storage are being examined in the BiOp Remand process. An addendum to the DEIS should be established following the conclusions of the Remand process to incorporate flood control modifications.

5-11 With respect to tributary flow enhancement, we support the efforts of the CTUIR in their work to restore flows to the Walla Walla River and believe it will ultimately benefit fish in the region. We encourage Ecology and the state of Washington to continue working closely with the tribe to develop attainable options to further the project. Such an approach has been used to successfully restore anadromous fish populations in the Umatilla River.

The CSRIA-Proposed Voluntary Regional Agreement Needs Closer Evaluation.

5-12 The Voluntary Regional Agreement (VRA) program is a new idea in the world of water law and needs further scrutiny. While it is generally useful to set up a "test case" (as it were) to try out a new idea, we are not convinced that the VRA proposed by the Columbia Snake River Irrigators Association (CSRIA) is appropriate at this time. We believe it is premature and needs closer scrutiny, especially in light of the fact that the VRA will be used as a way for those with "interruptible" rights subject to the Washington 1980 instream flow (the "fishes" water right") to acquire rights that are not interruptible. The VRA is comprised of a series of conservation measures (through best management practices) that are supposed to result in real "wet" water to supply to new (and uninterruptible) water rights. The logistics and legal ramifications of this have not been adequately examined to assure that it is workable. Furthermore, there is not enough review of its impacts to fish and instream flow. Instead the VRA is all about protecting water users and creating more consumptive water rights, not about protecting aquatic beneficial uses of the river, and certainly not heeding the advice of the National Research Council to avoid withdrawing water during times of low flow.

5-13 Of significance, the CSRIA-Proposed VRA contemplates a water mitigation program whereby members within the VRA "commit to pay \$10 per acre-foot annually for the full amount of water used under the permit in the previous year." This "mitigation program" was devised under a settlement agreement that Ecology entered into with the CSRIA. We do not agree that this settlement agreement should be a part of this VRA. The mitigation program was never publicly examined or commented upon, nor was it formally assessed by economists.

5-14 Because VRA mitigation option seemingly appeared out of nowhere and did not reflect the real market value of water resources, the tribes and CRITFC contracted with Resource Dimensions, LLP, to examine the program.

5-14 We are attaching the report (as Attachment A), Gustanski, Julie Ann, PhD.; E. Ariel Bergmann, PhD., Eva Gibson-Weaver, M.S., *Economic Analysis of the Columbia River Basin Water Mitigation Program* (Draft Sept. 2006). We ask Ecology to consider the report as part of its evaluation of the VRA. For purposes of the report, Resource Dimensions examined the question: "Is the fee level proposed for new water diversions within the Columbia River basin sufficient to assure that adequate mitigation funds will be available to protect instream requirements during a dry year at any given point in the future?" The report looks at several different alternative mitigation options, basing its analysis on the availability of replacement water, an important detail that is often overlooked when devising the mitigation component of these water rights permits. The report reflects that the proposed \$10 per acre-foot does not adequately meet the actual cost of providing the mitigation, especially when the mitigation is needed for years of low flow.

The report acknowledges some other primary risks and uncertainties that Ecology *must* address in public forum before it proceeds further with a mitigation proposal and a VRA. Some of the primary risks and uncertainties noted in the report are: the length of time that the mitigation fund will need to accumulate enough money to purchase mitigation water; duration and intensity of future droughts; availability of wet water for acquisition; and management of the fund. While the report does not fully answer these problems, it offers some options for Ecology, the Tribes and other stakeholders to consider for future VRAs.

5-15 The DEIS notes that "implementation of some conservation projects [for the VRA] may require additional environmental review." Therefore we recommend that Ecology take the "No Action Alternative" for this Action at this time and not process the VRA until the mitigation option is reviewed and the plan is further considered.

Early Action: Lake Roosevelt Drawdown.

5-16 As we stated in our comments on the CR Water Inventory Report, a foot and a half of Lake Roosevelt will only provide about 130,000 acre feet of water. Current discussions in the Remand Process are considering 4-8 feet of storage for Lake Roosevelt, and an additional 5 feet of storage from Banks Lake for flow augmentation. The DEIS has failed to examine these additional storage volumes for anadromous fish flows.

SPECIFIC COMMENTS

Summary § S.3.1.6 (p. S-8).

Mitigation measures would be developed in coordination with state and federal fish and wildlife agencies, the state Department of Archeology and Historic Preservation, and affected tribes.

5-17

In the past, Washington law has instructed Ecology to consult with "appropriate" tribes, rather than "affected." Is there a difference in application here? Should the scope be broadened to "appropriate"?

Chap. 2, § 2.2.8 (p. 2-18).

5-18

The DEIS contemplates defining certain terms found in the legislation. For the term: "No Negative Impact," the definition cannot simply state "same pool" or "same major reach" because these definitions do not capture the reality of providing *no negative impact*. The definition must be considered in light of benefits to salmon and other fish population. Meeting a no net negative impact standard will not recover anadromous salmon populations, because they are at a baseline that is already headed toward extinction. A no net negative impact standard will only at best, retain the currently baseline, which is unacceptable to CRITFC and its member tribes.

Chap. 2, § 2.5.1.2

5-19

The DEIS claims that there would not be a drawdown of Lake Roosevelt under the No Action Alternative. This may be the case with respect to the CRWMP, but it is not necessarily the case under other processes such as ESA and the Clean Water Act. As stated elsewhere in these comments, additional drawdowns of Lake Roosevelt are being contemplated as alternatives to increase listed salmon survival in the BiOp remand process in most water years. In addition, through a collaborative process led by EPA which includes Ecology, the Bureau of Reclamation has finished a selective withdrawal modeling study to determine if Lake Roosevelt could be used to reduce mainstem temperatures in the upper and mid-Columbia Rivers (BOR 2003) in order to better meet Washington State water quality standards. It may be necessary to drawdown Lake Roosevelt in order to meet temperature standards. A supplemental DEIS should describe these differences and explore these related issues.

Chap. 3, § 3.6.1.4 (p. 3-44).

This reserved right will prevent any new, upstream consumptive diversion that would leave insufficient flows in the river to maintain the fishery protected by the reservation. As such, this reservation could be a significant constraint on new diversions upstream of the Hanford Reach.

5-20

It is true that the 2000 federal designation of this site created federal water rights for the Reach, but the DEIS failed to also note that the Reach – the last free-flowing stretch of the Columbia River, is the spawning, incubation and rearing grounds for Hanford fall Chinook – the primary fish stock harvested by the Columbia River treaty tribes to fulfill their treaty rights. herefore, it is likely that there are significant tribal treaty instream water rights to the Reach that

5-20

are priority date of time immemorial. From a harvest perspective; the Hanford Brights are also an important stock coastwide from Alaska to Oregon. Flow fluctuations impact this stock, as will millions of juveniles estimated to be lost from these fluctuations and spawning habitat also reduced (Anglin et al. 2006). Reductions in flows during from October to May during the spawning, incubation and rearing life histories of this stock would likely impact productivity.

5-21

The DEIS describes the Hanford fall Chinook and sturgeon stocks as "healthy" but fails to provide any information or justification for this term. Actually, Hanford fall Chinook abundance has been in decline since the 2001 drought, when millions of juveniles were estimated to be lost due to flow fluctuation aggravating already low flows which were further reduced by Ecology's decision not to interrupt irrigation flows (Anglin et al. 2006). Hanford Reach sturgeon have failed to provide consistent recruitment because of the lack of high flows and are in a state of decline, as with other sturgeon stocks in the basin, particularly those located above McNary Dam. Only 1 population of sturgeon of 25 basin populations is considered to be stable and abundant (Miller 1995 in Parsley and Kappenman 2000).

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Delayed Mortality of Columbia River Salmon

*Exploring evidence concerning
delayed hydrosystem mortality for
Snake River spring/summer Chinook*

**A draft technical document developed for the
Framework/Policy Work Groups
Federal Columbia River Power System
Salmon Biological Opinion Remand**

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Executive Summary:

The hypothesis that a portion of the mortality that occurs in the estuary and ocean life stage is due to cumulative impacts of the Federal Columbia River Power System (FCRPS) is examined and the rationale described. Multiple analytical approaches are presented addressing this delayed or latent mortality for Snake River spring/summer Chinook. Water travel time and ocean/climatic conditions are considered in describing the variation in survival rates. In all results water travel time proved to be a significant factor in explaining the variation in survival. The FCRPS has delayed migration of in-river fish; with later arriving components of the population exhibiting lower SARs. The results of these multiple analyses provide compelling evidence that passage through the FCRPS strongly influences levels of delayed mortality of in-river migrants for these populations.

- The paper summarizes the hypothesis of delayed (latent) mortality relative to development and operation of the FCRPS, the mechanisms and the lines of evidence for this hypothesis, and variants of this main hypothesis.
- Past analyses are updated and expanded addressing upriver and downriver population comparisons and the development and operation of the FCRPS as a key factor in delayed mortality of Snake River spring/summer Chinook.
- New analyses are presented on survival of Snake River stocks alone that do not rely on upriver and downriver population comparisons.
- The analysis of Snake River populations alone included ocean/climatic variables, and water travel time relative to spawner-recruit residuals, smolt-to-adult return rates (SARs) and survival during the first year of ocean residence. Water travel time increased as the FCRPS was developed, and populations experienced a wide range of ocean/climatic conditions during the study period.
- Evaluation of the spawner-recruit residuals, SARs and early ocean survival showed that survival was related to water travel time, providing supporting evidence that there is a significant component of the survival during early ocean residence that is accounted for by delayed mortality, and related to construction and operation of the FCRPS. These analyses compliment the results from the upriver/downriver population performance model and did not rely on an assumption that downriver populations can serve as controls for Snake River populations.
- There is a delayed mortality component to survival during early ocean residence that is related to construction and operation of the FCRPS; however survival rates are also strongly related to the PDO and upwelling indices (measures of oceanic climatic conditions). The magnitude of delayed mortality may be modified by ocean conditions.
- Additional support for delayed mortality associated with passage through the FCRPS is provided by within-season patterns of SARs for in-river migrants, SARs of bypassed vs. true in-river migrants, and the relatively higher SARs of John Day wild Chinook when they experience the same arrival timing at Bonneville Dam as Snake River wild Chinook.
- Some delayed mortality of transported fish is well established by D-values less than 1.0, indicating ocean survival of transported smolts is less than that of in-river fish, which also experience delayed mortality.

I. Introduction

The Federal Columbia River Power System (FCRPS) Biological Opinion Remand Policy Work Group (PWG) provided direction in early May 2006 to the Framework Group participants to clarify issues related to delayed hydrosystem mortality for in-river migrants of Snake River spring/summer Chinook salmon. The PWG directed the Framework Group participants to develop clear statements of the differing hypotheses related to delayed mortality, and provide supporting rationale and evidence by May 31. Due to the short time-frame for this assignment, the draft document has not received complete agency or Framework Group review.

This technical draft document describes one hypothesis implemented in the Framework process that indicates substantial delayed (latent) mortality of juvenile salmon in the estuary or early ocean as a consequence of the hydrosystem experience. We also explored a variation on this hypothesis that delayed hydrosystem mortality may be influenced by ocean and climatic conditions. The rationale for the delayed mortality hypothesis is briefly described, and evidence from a number of existing and new analyses is presented.

II. Definition and Background for delayed mortality of Columbia River salmon

Development of the FCRPS from 1968 through 1975 resulted in a doubling of the number of dams, from four to eight, through which Snake River salmon migrate. This development was accompanied by severe declines in all Snake River anadromous salmon and their listing under the Endangered Species Act (ESA) in 1992.

A key remaining uncertainty for evaluating recovery options for upper basin salmon populations relates to the source of mortality that fish experience while in the estuary and early ocean. Sources of estuary and early ocean mortality include not only elements of the natural ocean environment, but also delayed effects of earlier life-stage experiences. One hypothesis for this delayed (or latent) mortality is that although this mortality occurs in the estuary and early ocean, it may be related to a fish's earlier

experience through the hydrosystem. Because this mortality may be caused by the cumulative impacts of the hydrosystem during downstream migration as juveniles, a portion of the mortality that occurs in this life stage is called delayed mortality. In the case of Snake River salmon, fish may die in the estuary or ocean after exiting the hydrosystem, but as a result of the cumulative impacts from negotiating up to eight hydroelectric dams. Hereafter, in order to synthesize the terminology and emphasize its anthropogenic source, we refer to this type of mortality as delayed hydrosystem mortality. Identifying the magnitude of delayed hydrosystem mortality of Snake River salmon populations is crucial to estimate the distribution of mortality among the Hs and the predicted the outcome of recovery scenarios. The relative utility of different recovery actions for Snake River stream-type Chinook salmon hinges in part on whether post-Bonneville smolt-to-adult survival rate is influenced by hydrosystem experience during seaward migration. Previous analytical assessments (2000 BiOp, Peters and Marmorek 2001; Karieva et al. 2000; Wilson 2003) evaluated management options for halting the decline of these populations. Investigators found that model results of management actions are sensitive to assumptions about the degree to which mortality that takes place in the estuary and ocean is related to earlier hydrosystem experience during downstream migration.

To standardize the discussion, we introduce the following notation (Figure 1) in use by the COMPASS modeling group. First, we designate survival terms using S and mortality terms using $L = 1 - S$. Terms for in-river migrants are denoted by the subscript I and terms for transported fish by the subscript T . We partition survival and mortality into the following life stages: downstream migration through the hydropower system (subscript ds), estuary/ocean (subscript eo), and upstream migration through the hydropower system (subscript us). We further partition the estuary/ocean stage to reflect mortality that would occur independent of the hydropower system ($1 - S_{eo}$), and hydropower system-related delayed (latent) mortality (L), which applies to both transported fish and in-river migrants. This partitioning of estuary/ocean survival reflects an assumption that for in-river fish, delayed mortality is essentially entirely expressed in the estuary/ocean stage. In previous studies, latent mortality (L) was

termed delayed hydrosystem mortality and denoted as $1 - \lambda_n$ (Peters and Marmorek 2001). We use this earlier terminology when discussing updated estimates of delayed mortality.

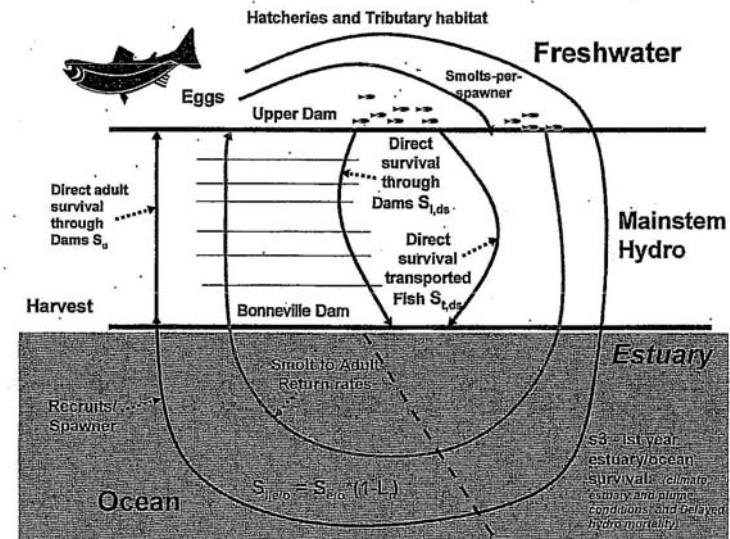


Figure 1. Survival and mortality terms used by the COMPASS work group for migration through the hydrosystem, and estuary/ocean survival partitioned into natural survival and hydrosystem latent mortality (L) components. Survival (S) and mortality (L) affecting Snake River anadromous salmonids migrating in-river (denoted by subscript I) at various life stages. The life stages are downstream migration through the hydropower system (ds), estuary/ocean (eo), and upstream migration through the hydropower system (us). The estuary/ocean survival is partitioned into survival that would occur in the absence of the hydropower system ($S_{e,o}$) and latent mortality associated with the passage through the hydropower system (L). Transported fish (denoted by subscript T) are affected by the same survival and mortality processes and are represented by changing the subscript I to T . In previous literature, $L = 1 - \lambda_n$.

III. Rationale for delayed mortality and mechanisms:

Because, by definition, delayed mortality is expressed after fish pass through the hydrosystem, it is impossible to measure directly. Delayed mortality associated with the FCRPS might result from changes in migration timing; injuries or stress incurred during migration through juvenile bypass systems, turbines, or spill at dams that does not cause direct mortality; disease transmission or stress resulting from the artificial concentration of fish in bypass systems or barges (Williams 2001, Williams et al. 2005, Budy et al. 2002; Schreck et al. 2006); depletion of energy reserves from prolonged migration (Congleton et al. 2004); altered conditions in the estuary and plume as a result of FCRPS construction or operation; or disrupted homing mechanisms. Nevertheless, changes in the hydrosystem over time were concurrent with changes in ocean conditions, hatchery smolt releases, and etc., making direct inference about relative influence of different factors in elevating mortality difficult. However, a number of reviews have found evidence in various forms linking the delayed mortality to the construction and operation of the FCRPS (Budy et al. 2002; Marmorek et al. 2004).

- a. *Stress and injury at the dams:* Problems associated with collection and mechanical bypass systems at the dams include: 1) delay of fish in the forebay; 2) a large pressure change experienced by fish going through the collection and bypass system; 3) mechanical injury during collection and bypass; and 4) concentration of fish at the bypass outflow where predators tend to congregate. Fish that pass via turbines are also delayed in forebays and are exposed to similar extreme pressure changes and mechanical injuries while going through the turbines (Long et al. 1968; Mathur et al. 1996; Navarro et al. 1996; Ferguson et al. 2006; see review by Bickford and Skalski 2000).
- b. *Stress and delayed mortality:* In addition to the stress smolts experience at the dam, the reservoirs behind the dams may also create stressful conditions. Water velocity has been greatly reduced as a result of the dams, and thus the time and energy expended to get through the reservoirs has increased over that

experienced in the free flowing conditions for which these fish evolved (Williams and Mathews 1995). The concept of increased vulnerability to predators as a result of acute or chronic stress is ubiquitous in ecology (see Budy et al. 2002).

- c. *Delayed mortality and arrival timing to the estuary:* During their seaward migration smolts are undergoing physiological changes in order to make the transition to saltwater. The increased freshwater residence time may result in premature physiological changes for saltwater that are not optimally suited for the freshwater environment. Also, the delay in reaching the estuary may result in arriving during a period of suboptimal conditions for survival. The combination of disrupting the timing of physiological readiness and arrival to the estuary during suboptimal conditions could cause increases in delayed mortality levels. The decrease in water velocity has also resulted in an increase in the residence time of the water, stressing fish energetically and allowing water temperatures to increase to higher than optimal levels for these cool water species (Raymond 1979; Budy et al. 2002; Congleton et al. 2004).

IV. Hypothesis: *Passage of seaward migrating juvenile fish through and around the FCRPS causes delayed mortality to salmon populations that may not be expressed until the estuary and ocean life-stage.*

a. Evidence

Delta model results from updated spawner-recruit (SR) analysis indicates that differential mortality between upriver and downriver populations increased during development of the FCRPS and remained high after completion of the FCRPS (Deriso et al. 2001; Marmorek et al. 2004; Schaller and Petrosky *in review*). In addition, delayed mortality estimates (using the methods of Peters and Marmorek 2001) also increased during development of the FCRPS and remained high after completion of the FCRPS.

i. Differential mortality between upriver and downriver populations.

Differential mortality is an estimate of the difference in the instantaneous mortality rate between Snake River and downriver (John Day River) population groups, accounting for common ocean climatic influence on both groups. Retrospective life-cycle analysis provided evidence of increases in mortality in Snake River spring/summer Chinook coincident with the development of the FCRPS (Schaller et al. 1999; Deriso et al. 2001; Marmorek et al. 2004; Schaller and Petrosky *in review*). The declines in survival rate of Snake River stocks were considerably sharper than those of downriver stocks over the same time period. Further, most Snake River survival rate declines were in the smolt-to-adult life stage, rather than the spawner-to-smolt stage (Petrosky et al. 2001). Differential mortality (μ), using model 1 from Deriso et al. (2001), has averaged about 1.47 since hydrosystem completion (Fig. 2). An alternative SR method compares Ricker residuals from Snake River and downriver stocks, which results in differential mortality estimates of about 1.15 (Fig. 3; Schaller et al. 1999; Schaller and Petrosky *in review*). Thus, life cycle survival rates ($e^{-\mu}$) of Snake River population averaged only 1/4 to 1/3 those of downriver populations since FCRPS completion.

PIT-tagged fish provide an independent measure of survival rates from smolt to adult stage, which incorporates variation in hydrosystem experiences and environmental conditions in the estuary and (early) ocean. Spatial and temporal contrasts of survival rates from different life stages (adult-to-adult, adult-to-smolt, and smolt-to-adult) provide valuable information to diagnose where mortality rates have increased in the salmon life-cycle, and allow indirect inferences about alternative causes. The Comparative Survival Study (CSS; Berggren et al. 2005) started a consistent time series of PIT-tag SARs for Snake River and downriver wild spring/summer Chinook (John Day River) beginning in smolt year 2000. SAR estimates of differential mortality

generally agree with those from spawner and recruit information (Fig. 2, 3), and indicate Snake River stocks survived 1/3 as well as downriver stocks during smolt years 2000-2002 (Berggren et al. 2005). The close correspondence of the SAR and SR estimates of differential mortality provides additional evidence that the relative survival difference occurred during the smolt- to-adult life stage. Lastly, this SAR analysis of differential mortality provides a measure that is independent of μ estimated from SR data.

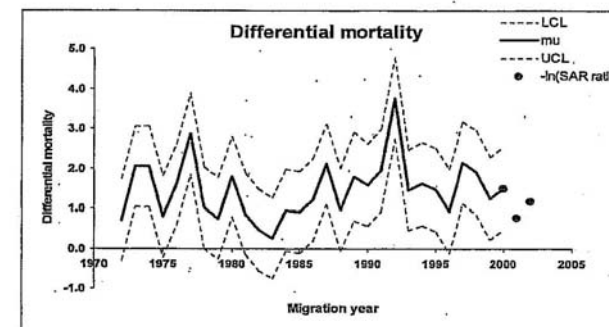


Figure 2. Differential mortality estimates (μ) from the Deriso et al. (2001) model updated through smolt year 2000 (Marmorek et al. 2004; Schaller and Petrosky *in review*) compared to estimates based on SARs of wild Snake River and John Day River spring/summer Chinook ($-\ln(\text{SAR ratio})$), smolt years 2000-2002 (Berggren et al. 2005).

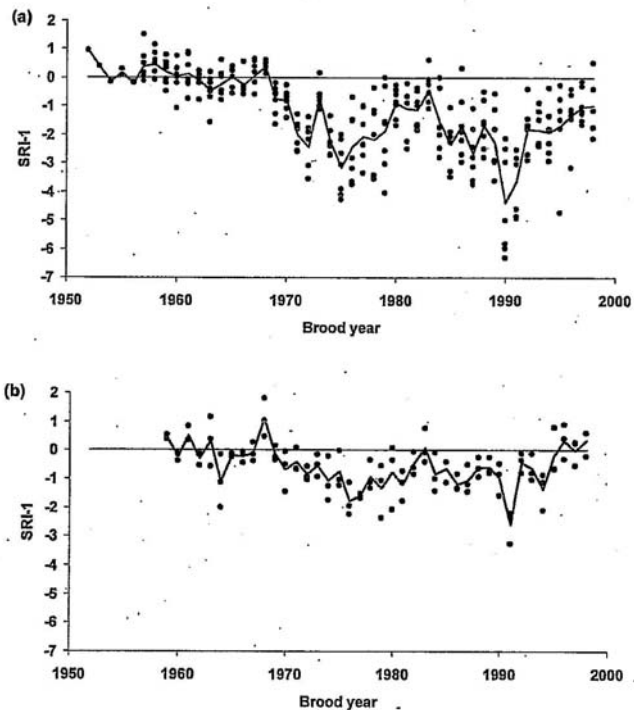


Figure 3. Deviations of $\ln[(\text{observed } R/S)/(\text{predicted } R/S)]$ from ANCOVA fit to the pre-1970 period (SRI-1) for the (a) Snake, and (b) downriver regions, brood years 1952-1998 (Schaller and Petrosky *in review*). Average SRI-1 values represented by solid line.

- ii. **Estimating delayed mortality.** The magnitude of delayed mortality is estimated by partitioning direct juvenile passage survival and the differential delayed transportation mortality factor, D , from the estimated total mortality (m) of the Snake River populations (Peters and Marmorek 2001; see Fig. 1). Total mortality (m) is estimated by spawner-recruit methods described in Deriso et al. (2001; model 1). Tagging studies (Williams et al. 2005; Berggren et al. 2005, Zabel et al. 2006) and retrospective juvenile passage modeling (Peters and Marmorek 2001) can be used to generate historical estimates of the juvenile passage survival, direct hydrosystem mortality (M) and D .

Delayed mortality is estimated as $1-\lambda_n$ ("lambda_n" in Table 1; Peters and Marmorek 2001). Estimates of delayed mortality averaged 0.59 for smolt migration years 1977-1993 (Peters and Marmorek 2001; Fig. 4), using passage model in-river survival estimates and an average $D = 0.53$ (Table 1). Updated estimates of delayed mortality, using PIT-tag estimates of in-river survival and D , averaged 0.67 for smolt years 1994-2000 (Marmorek et al. 2004, Schaller and Petrosky *in review*; Fig. 4).

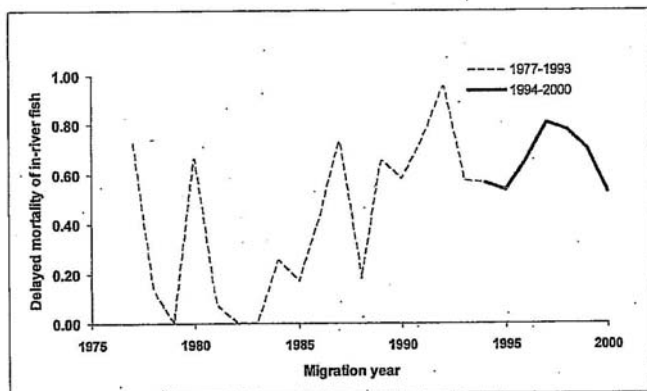


Figure 4. Delayed mortality estimates for smolt migration years 1977-2000 (Schaller and Petrosky in review).

Table 1. Estimates of instantaneous mortality rates, and survival rates attributed to delayed hydrosystem mortality for Snake River spring/summer Chinook, post FCRPS completion. Estimated parameters from Peters and Marmorek (2001), updated through brood year 1998 (Marmorek et al. 2004). Differential mortality estimates for 1999 from SARs of Snake River and John Day River spring Chinook (Berggren et al. 2005). Estimates of D before brood year 1992 sampled from 1993-2003 distribution (Berggren et al. 2005), except brood year 1999 value of D (2001 smolt year) applied to other low flow years (brood year 1975).

Brood year	M	Pbt	D	m	Delta_m	Sem	Lambda_n	Delta	Mu
1975	1.282	0.064	2.20	3.178	1.524	0.148	0.07	-0.186	2.860
1976	0.632	0.900	0.48	1.327	0.695	0.499	0.94	-1.137	1.011
1977	0.614	0.936	0.47	1.080	0.546	0.580	1.00	-1.046	0.744
1978	0.427	0.939	0.47	2.104	1.678	0.187	0.37	-0.341	1.789
1979	0.511	0.938	0.47	1.169	0.658	0.518	1.00	-0.727	0.953
1980	0.618	0.732	0.49	0.767	0.150	0.869	1.00	-0.100	0.451
1981	0.738	0.703	0.49	0.659	-0.199	1.000	1.00	-0.523	0.254
1982	0.542	0.746	0.48	1.268	0.724	0.485	0.79	0.151	0.950
1983	0.466	0.922	0.48	1.220	0.784	0.470	0.90	0.800	0.905
1984	0.444	0.880	0.49	1.527	1.083	0.339	0.62	-0.167	1.211
1985	0.462	0.958	0.48	2.425	1.933	0.145	0.29	0.027	2.100
1986	0.470	0.969	0.48	1.278	0.607	0.446	0.90	-0.573	0.961
1987	0.457	0.992	0.49	2.108	1.609	0.200	0.37	-0.842	1.760
1988	0.430	0.957	0.48	1.893	1.483	0.231	0.46	-0.105	1.577
1989	0.339	0.942	0.48	2.274	1.935	0.144	0.29	0.006	1.958
1990	0.322	0.979	0.48	4.072	3.750	0.024	0.05	-0.337	3.758
1991	0.320	0.943	0.48	1.789	1.439	0.237	0.47	-1.892	1.443
1992	0.210	0.973	0.32	1.925	1.715	0.180	0.53	0.128	1.809
1993	0.159	0.939	0.40	1.775	1.618	0.199	0.46	-0.186	1.460
1994	0.180	0.674	0.89	1.244	1.063	0.345	0.39	-0.733	0.628
1995	0.198	0.892	0.39	2.450	-2.251	0.105	0.22	0.581	2.134
1996	0.178	0.892	0.54	2.210	2.032	0.131	0.22	0.901	1.994
1997	0.121	0.912	0.74	1.555	1.433	0.239	0.31	0.585	1.239
1998	0.218	0.859	0.39	1.808	1.590	0.204	0.45	1.025	1.462
1999	0.027	0.990	2.20	0.947	0.919	0.389	0.18	0.768	0.768

0.44 geometric lambda n (BY78-98)

M = direct mortality of Snake stocks
 m = total annual mortality of Snake stocks
 $\Delta_m = m - M$
 $Sem = exp(\Delta_m)$
 $\Lambda_n = Sem / (D * Pbt + 1 - Pbt)$

Lambda_n is survival rate attributed to delayed hydrosystem mortality of in-river migrants
 Delayed mortality = 1 - Lambda_n

D = differential delayed mortality of transported smolts
 Pbt = proportion of migrants below Bonneville Dam that were transported
 Delta = common year effect (common mortality patterns between Snake and downriver populations)
 Mu = differential mortality (difference in mortality between Snake and downriver populations)
 Average Mu = 1.47, i.e., Snake River populations survived 23% as well as downriver populations

M, m, Delta and Mu are defined in Deriso et al. (2001)
 Delta_m, D, Pbt and Lambda_n are defined in Peters and Marmorek (2001)

iii. Common year effect. In the Delta model, differential mortality is estimated with an assumption of a common climatic influence on the different population groups (Deriso et al. 2001); the best fit empirical models included an estimate of a common year effect (δ). The estimated common year effect ranged from -1.89 to 1.49 for smolt years 1954-2000 (Fig. 5; Marmorek et al. 2004; Schaller and Petrosky *in review*). This range of mortality equates to relative annual changes (e^{δ}) from 15% to 444% of the long-term average survival rate.

The relevance of upriver/downriver population comparisons to infer common climatic influences and to estimate hydrosystem impacts, including delayed mortality, was questioned by Zabel and Williams (2000), Levin and Tolimieri (2001) and Williams et al. (2005). A primary criticism was that the two stock complexes may have considerable genetic differences and would not respond identically to estuary and ocean conditions. Arguments in support of such a framework appeared in Schaller et al. (1999, 2000), Marmorek et al. 1998, Deriso et al. (2001) and Schaller and Petrosky *in review*. These papers stressed that the stock differences would need to explain the systematic change in relative stock performance coincident with, but unrelated to, the development and operation of the hydrosystem.

The common year effect, δ , appears to be a reasonable description of co-variation between upriver and downriver stream-type Chinook salmon in the Columbia River. Snake River and John Day River stream-type Chinook have similar smolt migration timing and share common estuary conditions (Schaller et al. 1999; Berggren et al. 2005). Elsewhere, co-variation in survival rates within and between species has been described at regional scales up to 500 km from the point of ocean entry (e.g., Pypers et al. 2005). The variation in δ and SR residuals for the downriver stream-type Chinook populations fell within a range similar to that observed for pink, chum, sockeye and coho salmon from other regions, and Columbia River ocean-type Chinook (Fig. 6a,b; Schaller

and Petrosky *in review*). In contrast, the variance in Snake River SR residuals significantly exceeded that in 36 out of 40 other salmon population groups (Fig. 6c). This larger variation in Snake River SR residuals relative to other salmon population groups is consistent with the Schaller et al. (1999) and Deriso et al. (2001) hypotheses of large mortality impacts due to hydrosystem development and operation, which is in addition to environmental variation (captured by the common year effect).

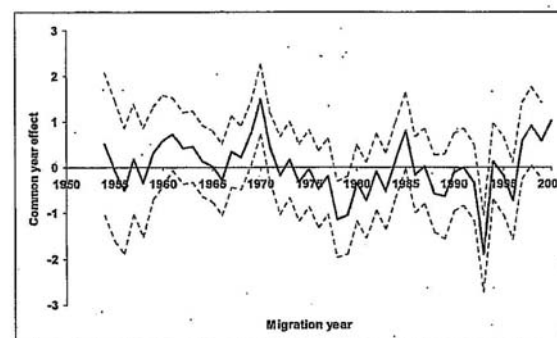


Figure 5. Common year effect estimates from the Deriso et al. (2001) model updated through smolt year 2000 (Marmorek et al. 2004; Berggren et al. 2005).

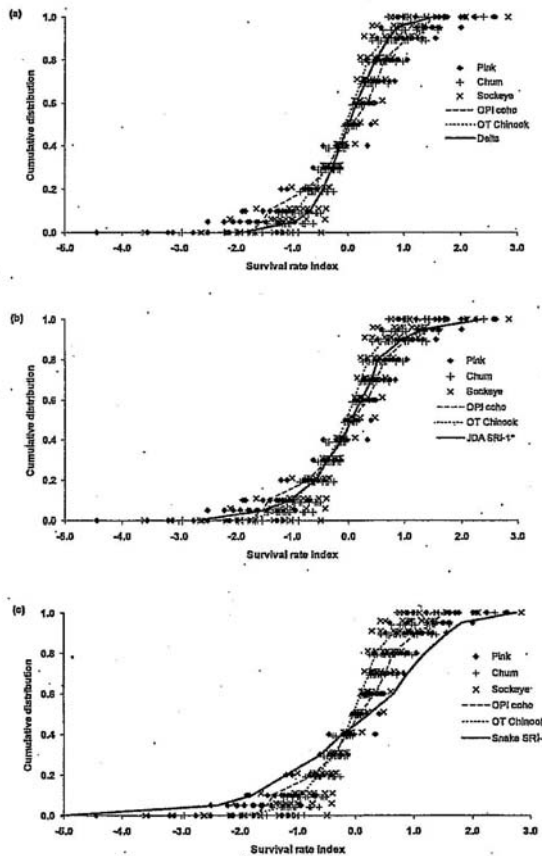


Figure 6. Distribution of δ (a), SR residuals for John Day River populations (b) and SR residuals for Snake River populations (c) of stream-type Chinook compared with SR residuals for other salmon population groups (Schaller and Petrosky *in review*).

- iv. Analyses excluding downriver stocks. The preceding delayed mortality analyses relied on upriver/downriver population performance to determine annual mortality differences between population groups, and then partitioned this annual mortality by the measured (or model estimated) direct passage mortality and D .

Other analytical methods, which rely only on the Snake River population response, also point to large mortality impacts from the FCRPS in the SAR life-stage. First, Wilson's (2003) matrix modeling analysis also concluded that a sharp decline in estuarine and ocean survival, associated with dam construction and operation, was the primary reason for the population declines. We explored alternative approaches, using just the Snake River populations, including multiple regression of the SR residuals (Schaller et al. 1999; Schaller and Petrosky *in review*), the SARs and the 1st year ocean survival (s_3 - Zabel et al. 2006) against environmental conditions experienced during the smolt migration and in the ocean (Petrosky and Schaller *in prep.*).

Linear multiple regression was used to relate SR residuals (an index of survival) for Snake River spring/summer Chinook populations (Schaller et al. 1999; Schaller and Petrosky *in review*) to water travel time (WTT) during the smolt migration and ocean climatic variables experienced during the first year at sea. WTT is a measure of the average number of days for water particles to travel from the confluence of Clearwater and Snake Rivers to Bonneville Dam (April 15-May 31 flow). Ocean climatic variables investigated included: Pacific Decadal Oscillation Index (PDO), Sea Surface Temperatures (SST) and wind induced coastal upwelling index (Mantua et al. 1997, Pacific Fisheries Environmental Laboratory 2006). WTT increased substantially as the number of dams increased, and varied as a function of flow (Fig. 7). WTT was about 2 days during pristine conditions and increased to an average 19 days (range 10-40 days) with 8 dams. WTT was a significant independent

variable in the top regression models (Table 2), suggesting some of the life cycle survival variation was associated with the juvenile migration conditions. The best 3 variable model included WTT, April Upwelling and September PDO. The expected response for (R/S) to changes in WTT (holding ocean climatic variables constant) is shown in Fig. 8. For average climate conditions the expected $\ln(R/S)$ residual was 0 at 2.8 days WTT, decreasing to -1.79 at 19 days WTT. In other words, with increased WTT survival (recruits/spawner residuals) would decrease to 17% ($e^{-1.79}$) of survival expected under historic WTT conditions. For the good and poor climate conditions considered here (Sep PDO -1 or +1, April Upwelling +40 or -40), the expected recruits/spawner was 2 fold higher or lower, respectively (Fig. 8). The increase in instantaneous mortality after FCRPS completion predicted by the WTT regression (1.79) corresponded closely with the Delta model estimates of annual instantaneous mortality (average $m = 1.75$; Table 1). In other words, both methods (upstream/downstream comparison and Snake River population performance only) estimate that, on average, current survival has decreased to 17% of the average historic level.

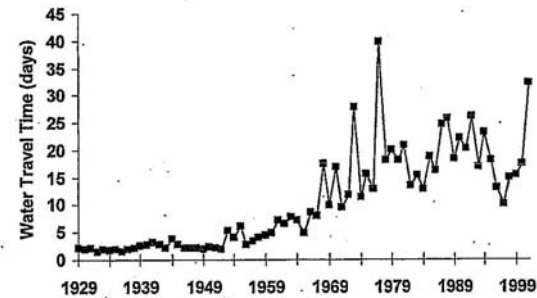


Figure 7. Water Travel Time (days for water particles to travel from the confluence of Clearwater and Snake Rivers to Bonneville Dam), 1929-2001. FCRPS dams were constructed in 1938 (BON), 1953 (MCN), 1957 (TDD), IHR (1961), JDA (1968), 1969 (LMN), 1970 (LGS), and 1975 (LGR).

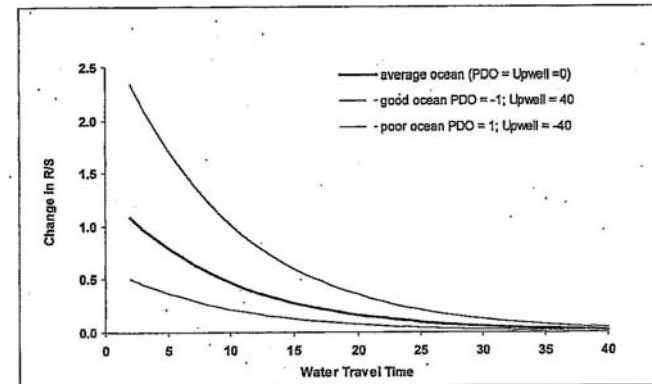


Figure 8. Expected change in Recruit/Spawner vs. Water Travel Time (WTT) for average ocean conditions (Sep PDO = 0; April Upwelling = 0), good ocean conditions (Sep PDO = -1; April Upwelling = 40), and poor ocean conditions (Sep PDO = 1, April Upwelling = -40). Historic WTT was 2 days, recent average (range) with 8 dams is 19 days (10-40 days).

Table 2. Regression model results (selected) for SR residuals of Snake River spring/summer Chinook versus environmental variables, Water Travel Time (days), PDO, Upwelling and Sea Surface Temperature (selected months), smolt migration years 1954-2000.

Number in model	Adjusted R ²	R ²	AIC	BIC	Variables in model	Comments
8	0.733	0.780	-37.46	-30.37	WTT, May PDO, JunPDO, AprUP, OctUP, MarPDO, AugPDO, SepPDO	highest R ² _{adj}
4	0.721	0.745	-38.62	-35.48	WTT, AprUP, OctUP, SepPDO	best AIC, BIC
3	0.695	0.715	-35.36	-33.37	WTT, AprUP, SepPDO	best 3 variable model
3	0.689	0.709	-34.39	-32.55	WTT, AprUP, AugPDO	
3	0.688	0.708	-34.32	-32.50	WTT, OctUP, SepPDO	
3	0.687	0.707	-34.10	-32.32	WTT, OctUP, AugPDO	
2	0.668	0.682	-32.30	-30.84	WTT, AugPDO	best 2 variable model
1	0.540	0.550	-17.93	-17.67	WTT	
3	0.524	0.555	-14.44	-15.58	WTT, MarSST, MarPDO	lowest R ² _{adj} including WTT
4	0.464	0.511	-7.99	-10.62	MayPDO, JunPDO, OctUP, AugUP	highest R ² _{adj} excluding WTT

Parameter estimates SR residuals = WTT, AprUP, OctUP, SepPDO

Variable	Estimate	Pr > t
Intercept	0.0600	0.7809
WTT	-0.0974	<0.0001
AprUP	0.0106	0.0183
OctUP	-0.0111	0.0311
SepPDO	-0.3147	0.0019

Parameter estimates SR residuals = WTT, AprUP, SepPDO

Variable	Estimate	Pr > t
Intercept	0.2916	0.1691
WTT	-0.1051	<0.0001
AprUP	0.0109	0.0201
SepPDO	-0.3368	0.0014

Linear multiple regression was also used to relate SARs for Snake River spring/summer Chinook populations to water travel time and the above ocean climatic variables (PDO, SST, upwelling index). SARs were transformed into mortality rates (-ln(SAR)) for the analysis. Two time series of SAR estimates were investigated, one using the estimates reported in Zabel et al. (2006) for all years (SAR_{nmfs}), and the other using the same estimates for the early years and PIT tag estimates (Berggren et al. 2005) for smolt years 1994-2001 (SAR_{pit}). Smolt years 1985-1991 were excluded from the SAR analyses because no estimates of wild smolts were available (Petrosky et al. 2001). WTT was a significant independent variable in the best fit regression models for both data series (Tables 3 and 4), suggesting ocean survival was also influenced by the juvenile migration conditions. The expected response of SAR_{pit} to changes in WTT (holding ocean climatic variables constant) is shown in Fig. 9. The regression suggests that at current average WTT (19 days), SAR_{pit} survival rate would decline to 35% of the value predicted from historic WTT (2 days).

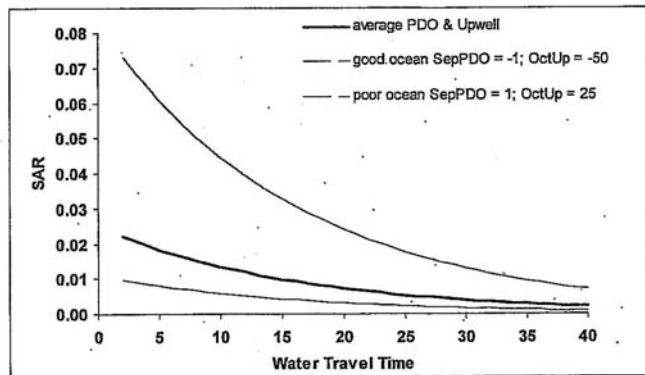


Figure 9. Expected SAR vs. Water Travel Time (WTT) for average ocean conditions (Sep PDO = 0; Oct Upwelling = 0), good ocean conditions (Sep PDO = -1; Oct Upwelling = -50), and poor ocean conditions (Sep PDO = 1, Oct Upwelling = 25). Historic WTT was 2 days, recent average (range) with 8 dams is 19 days (10-40 days).

Table 3. Regression model results for SARs of Snake River spring/summer Chinook versus environmental variables, Water Travel Time (days), PDO, Upwelling and Sea Surface Temperature (selected months), smolt migration years 1966-1984, 1992-2001. SARs (SAR_nmf) are from Zabel et al. (2006) based on run reconstruction from Williams et al. (2005).

Number in model	Adjusted R ²	R ²	AIC	BIC	Variables in model	Comments
5	0.706	0.756	-39.11	-33.46	WTT, SepPDO, OctUP, AugSST, AprUP	Highest R ² , best AIC
4	0.690	0.723	-37.20	-33.67	WTT, SepPDO, AugSST, AprUP	best model from BIC
3	0.633	0.670	-33.85	-32.01	WTT, SepPDO, AugSST	best 3 variable model
4	0.577	0.633	-28.59	-27.80	MayPDO, SepPDO, OctUP, AugSST	Highest R ² excluding WTT
2	0.514	0.547	-25.03	-25.91	WTT, SepPDO	best 2 variable model

Parameter estimates -ln(SAR_nmf) = WTT, SepPDO, OctUP, AugSST, AprUP

Variable	Estimate	Pr > t
Intercept	7.3010	<0.0001
WTT	0.0529	0.0003
SepPDO	0.5138	<0.0001
OctUP	0.0089	0.0823
AugSST	-0.2387	0.0069
AprUP	-0.0079	0.0554

Table 4. Regression model results for SARs of Snake River spring/summer Chinook versus environmental variables, Water Travel Time (days), PDO, Upwelling and Sea Surface Temperature (selected months), smolt migration years 1966-1984, 1992-2001. SARs (SARpit) through 1993 are from Zabel et al. 2006; SARs for 1994-2001 are from PIT tag estimates (Berggren et al. 2005).

Number in model	Adjusted R ²	R ²	AIC	BIC	Variables in model	Comments
6	0.690	0.752	-38.44	-31.84	WTT, SepPDO, OctUP, AprSST, AugSST, AprUP	highest R ² _{adj}
5	0.688	0.740	-39.00	-33.74	WTT, SepPDO, OctPDO, AugSST, AprUP	best model from AIC
4	0.665	0.709	-37.55	-34.10	WTT, SepPDO, OctUP, AugSST	best model from BIC
3	0.616	0.656	-34.32	-32.55	WTT, SepPDO, OctUP	best 3 variable model
4	0.636	0.596	-27.49	-27.24	MayPDO, SepPDO, OctUP, AugSST	highest R ² _{adj} excluding WTT
2	0.516	0.549	-27.91	-27.61	WTT, SepPDO	best 2 variable model

Parameter estimates -ln(SARpit) = WTT, SepPDO, OctUP, AugSST, AprUP

Variable	Estimate	Pr > t
Intercept	4.9836	0.0342
WTT	0.0562	0.0002
SepPDO	0.4462	0.0005
OctUP	0.0112	0.0316
AprSST	0.1599	0.2953
AugSST	-0.1709	0.0581
AprUP	-0.0068	0.1807

Parameter estimates -ln(SARpit) = WTT, SepPDO, OctUP

Variable	Estimate	Pr > t
Intercept	3.6911	<0.0001
WTT	0.0617	0.0002
SepPDO	0.4434	0.0002
OctUP	0.0161	0.0073

The time series of 1st year ocean survival (3rd year survival, s3) was estimated by methods similar to Zabel et al. (2006) from SARs of aggregate Snake River spring/summer Chinook for smolt years 1966-2001. Smolt years 1985-1991 were excluded from the s3 analyses¹ because no estimates of wild smolts were available (Petrosky et al. 2001). Estimates of s3 were derived by partitioning the SARs for each smolt migration year by estimates of direct passage survival and *D*, assuming the survival during the 2nd and 3rd ocean years is fixed at 0.8 (Zabel et al. 2006). This approach contains any latent or delayed hydrosystem mortality in the s3 estimate, rather than attempting to estimate the magnitude of delayed mortality as described above for the Peters and Marmorek (2001) method.

Linear multiple regression was used to relate s3 to water travel time (WTT), and several ocean climatic variables (PDO, SST, upwelling index). First year ocean survival was transformed to a mortality rate (-ln(s3)) for the analysis. WTT was a significant independent variable in the top s3 regression models (Table 5), suggesting some of the 1st year ocean survival was associated with the juvenile migration conditions. The simplest best fit model (best BIC score) selected the independent variables WTT, September PDO, and April Upwelling.

The expected response of s3 to changes in WTT (holding ocean climatic variables constant) is shown in Fig. 10. Under average ocean conditions (Sep PDO = 0, April Upwelling = 0), predicted s3 was 20.5% at 2 days WTT and 4.1% at 19 days WTT. Under good ocean conditions (assumed Sep PDO = -1, April Upwelling = 40), predicted s3 was 55.7% at 2 days WTT and 11.1% at 19 days WTT. Under poor ocean conditions (assumed

¹Regression analyses using assumptions to generate wild smolts for 1985-1991 resulted in the same primary variables with similar coefficients.

Sep PDO = 1, April Upwelling = -40), predicted s3 was 7.6% at 2 days WTT and 1.5% at 19 days WTT.

The level of mortality for Snake River spring/summer Chinook populations, during their 1st year of ocean residence that can be attributed to the FCRPS configuration and operation is characterized by the s3 response to the change in WTT from average historic levels (2 days) to average present levels (19 days). Thus, under the current FCRPS configuration, 1st year ocean survival was expected to average only 20% of historic based on WTT change (2 to 19 days). The magnitude of delayed hydrosystem impact suggested by the s3 regression analysis is consistent with, and slightly greater than, the delayed mortality estimates (Table 1; $\lambda_n = 0.33$) derived using upriver and downriver population performance.

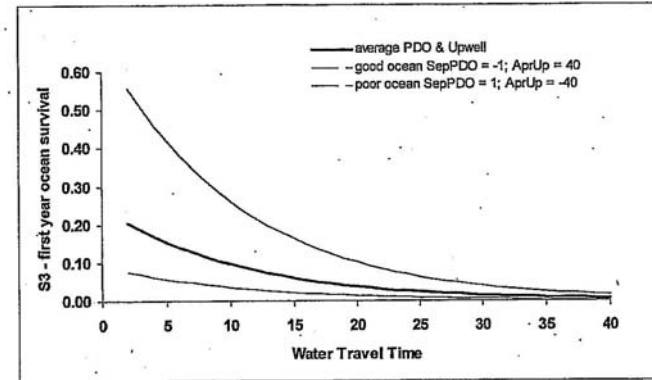


Figure 10. Expected 1st year ocean survival (s3) vs. Water Travel Time (WTT) for average ocean conditions (Sep PDO = 0; April Upwelling = 0), good ocean conditions (Sep PDO = -1; April Upwelling = 40), and poor ocean conditions (Sep PDO = 1, April Upwelling = -40). Historic WTT was 2 days, average (range) with 8 dams is 19 days (10-40 days).

Table 5. Regression model results for 1st year ocean survival (s3) of Snake River spring/summer Chinook versus environmental variables, Water Travel Time (days), PDO, Upwelling and Sea Surface Temperature (selected months), smolt migration years 1966-1984, 1992-2001.

Number in model	Adjusted R ²	R ²	AIC	BIC	Variables in model	Comments
4	0.728	0.765	-33.99	-29.03	WTT, MayPDO, SepPDO, AprUP	highest R ² and best AIC
5	0.725	0.774	-33.08	-28.95	WTT, MayPDO, SepPDO, AugSST, AprUP	
3	0.712	0.743	-33.39	-29.82	WTT, SepPDO, AprUP	best 3 variable model, best BIC
3	0.705	0.737	-32.94	-29.31	WTT, MayPDO, AprUP	
2	0.655	0.680	-29.00	-27.21	WTT, AprUP	best 2 variable model
4	0.420	0.503	-12.23	-14.30	MayPDO, AprSST, AugSST, AprUP	highest R ² excluding WTT

Parameter estimates S3 mortality (-ln(s3)) = WTT, MayPDO, SepPDO, AprUP

Variable	Estimate	Pr > t
Intercept	1.4948	<0.0001
WTT	0.0665	<0.0001
MayPDO	0.1730	0.1437
SepPDO	0.2062	0.0998
AprUP	-0.0144	0.0088

Parameter estimates S3 mortality (-ln(s3)) = WTT, SepPDO, AprUP

Variable	Estimate	Pr > t
Intercept	1.3934	<0.0001
WTT	0.0947	<0.0001
SepPDO	0.2777	0.0204
AprUP	-0.0180	0.0008

Evaluation of the time series of SR residuals, SARs, and s3 showed that survival was related to water travel time – providing supporting evidence that there is a significant component of the survival during early ocean residence that is delayed mortality, and related to construction and operation of the FCRPS. These analyses compliment the results from the upriver/downriver population performance model, and did not rely on an assumption that downriver populations can serve as controls for Snake River population response.

V. Modified delayed mortality hypothesis: Passage of seaward migrating juvenile fish through and around the FCRPS causes delayed mortality to salmon populations that may not be expressed until the estuary and ocean life-stage. The magnitude of delayed effects related to the FCRPS may vary due to ocean/climate conditions.

a. Evidence

The hypothesis that the magnitude of delayed mortality is modified by ocean conditions is plausible, because fish condition can be compromised by the effects of the hydrosystem and therefore the 1st year ocean survival moderated by ocean/climate conditions.

Williams et al. (2005) hypothesized that delayed mortality of Snake River spring/summer Chinook became negligible in the late 1990s as ocean conditions improved. Schaller and Petrosky (*in review*) found evidence that delayed hydrosystem mortality remained high even as climatic conditions improved (Figure 4).

Evaluation of the time series of s3 (early ocean survival), SARs, and SR residuals show that survival is related to water travel time – providing

supporting evidence that there is a delayed mortality component to survival during early ocean residence that is related to construction and operation of the FCRPS. However, the survival rates are also strongly related to the PDO and upwelling indices (measures of ocean/climate conditions).

Figures 8-10 show the response of SR residuals, SARs and s_3 from the multiple regression models to water travel time (WTT) for average, good and poor PDO and upwelling conditions. For a fixed WTT, the predicted survival rates vary widely across the ocean climatic conditions. The environmental variables that demonstrated a significant relation to these survival indices included Water Travel Time, April and October upwelling, May and September PDO, and on occasion August sea surface temperatures. These findings for the oceanographic indices were generally consistent with the work of Scheuerell and Williams (2005), Zabel et al. (2006), and Nickelson (1986). However, in addition we identified that survival rates have been strongly influenced by water travel time through the Columbia River mainstem projects and reservoirs.

b. *Sub Hypothesis: There is a differential delayed mortality for transported fish from those fish that migrate through the FCRPS inriver.*

i. D refers to the ratio of smolt-adult survival (measured from below Bonneville Dam as juveniles to Lower Granite Dam as adults) of transported fish relative to that of in-river migrants. Using our earlier notation, the corresponding SARs are

$$SAR_{T,BON \rightarrow LGR} = S_{e1a}(1 - L_T)S_{T,IN}$$

$$SAR_{I,BON \rightarrow LGR} = S_{e1a}(1 - L_I)S_{I,IN}$$

Therefore, D is simply

$$D = \frac{SAR_{T,BON \rightarrow LGR}}{SAR_{I,BON \rightarrow LGR}} = \frac{(1 - L_T)S_{T,IN}}{(1 - L_I)S_{I,IN}}$$

Note that we assume the same natural estuary/ocean survival (S_{e1a}) for both in-river and transported fish.

- ii. D is typically below 1.0 for Snake River spring-summer Chinook salmon and steelhead, providing one measure of latent mortality for transported fish, but not an absolute measure--it is only relative to in-river fish. This latent mortality may result from stress experienced on the barge, disruption of timing to the estuary, or increased straying or fallback of adult migrants. While we cannot identify specific mechanisms that lead to $D < 1.0$, we can directly estimate D , because it relates to the juvenile survival and SAR for in-river migrants. Estimates of D for wild spring/summer Chinook are presented in the following table:

Migration year	NMFS (Williams et al. 2005)	CSS (Berggren et al. 2005)
1994	0.68	0.36
1995	0.46	0.42
1996	1.08	0.92
1997	0.50	0.40
1998	0.43	0.55
1999	0.64	0.72
2000	0.34	0.32
2001		2.16
2002		0.44
2003		0.69

D is not an absolute measure of the latent mortality of transported fish, because the overall amount of delayed mortality for transported fish is a

consequence of both *D* and the level of hydropower-related delayed mortality of in-river migrants.

- c. *Sub Hypothesis: Passage of seaward migrating juvenile fish through (inriver) and around (transportation) the FCRPS causes delayed mortality to salmon populations by delaying or accelerating arrival of smolts to the estuary.*

i. Evidence

1. Seasonal Trends in SARs: Previous analysis suggests that there may be seasonal trends in transport-inriver ratios (TIR) of SARs and *D* values for hatchery and wild yearling migrant Chinook. These analyses have suggested that TIR (and *D*) tends to increase over the migration season (e.g. see Figure C2 in Marmorek et al. (2004). Such a pattern may reveal one mechanism by which hydrosystem experience can affect survival below Bonneville dam, and it can have implications for transportation strategy. Patterns for steelhead are not as pronounced and average TIRs have tended to be above 1 across the migration season.

Data from PIT-tagged wild spring/summer Chinook were used (Fish Passage Center unpublished data) to investigate the consistency of seasonal trend between years, from migration years 1998-2003. The method used to explore within-season variation was adapted from the method used in the Collaborative Systemwide Monitoring and Evaluation Project (CSMEP) Hydro Group Data Quality Objectives process (Porter et al. 2005) and in the post-Bonneville mortality work group for the NMFS COMPASS modeling process (P. Wilson). The method uses an assumption of binomial sampling error in the SAR estimates to remove measurement error variance from total variance to estimate inter-annual process error (environmental) variance. Instead of using data from each migration year in the aggregate to estimate environmental variance in

SARs and TIRs, here the data from each of three periods within the migration season is treated separately. The resulting distributions can then be used to derive estimates of, for instance, the frequency with which true TIR would be greater than one for each of the time periods. In this analysis, Lower Granite Dam (LGR) is the only transport project investigated (though the exercise could be performed for other projects). Unlike the CSMEP and post-Bonneville hypothesis analyses submitted to the post-Bonneville group, the in-river fish used are "C1" fish—PIT-tagged fish detected at LGR dam. The "true control" (C0) fish used in previous applications of this method cannot be used to estimate season trends in SAR and TIR; since a C0 smolt is not detected at LGR (or any of the collector projects), a date of LGR passage cannot be accurately assigned to it. Because the C1 group has typically shown lower annual SARs than the "true controls" (Berggren et al. 2005) the seasonal TIRs calculated here likely have some positive bias.

Each migration year, the season was broken into three periods based on detection date at LGR: Before April 26, April 26 to May 10, and after May 10. This resulted in approximately equal total numbers of PIT-tagged fish in each group, over the six year period. Summary information from the resulting TIR distributions is presented in the table below. It appears that TIR (and consequently, *D*) increases substantially over the season.

Period	T smolts	C1 smolts	Median TIR	Prob TIR > 1
Before 4/26	4059	15380	0.36	15%
4/26 – 5/10	2366	19568	1.29	59%
After 5/10	3022	15348	2.30	91%

Inspecting the distributions of transport and in-river SARs suggests that although transport SAR is modestly higher late in the season than earlier (Fig. 11a), the primary reason for the increasing trend in TIRs is that in-river (C1) SARs decline dramatically in the middle and end of the season

(Fig. 11b). The decline in SAR of in-river (C1) fish as the season progresses is consistent with the hypothesis that the protracted migration and late arrival in the estuary is in part responsible for elevated levels of post-Bonneville mortality as a consequence of the hydrosystem experience.

The seasonal TIRs contain some positive bias because the true controls (C0), which migrate through spill and turbine routes at collector dams, have shown higher SARs than fish bypassed at one or more of the collector dams (Berggren et al. 2005). The SAR distributions for true controls (C0) and smolts detected and returned to the river at LGR dam (C1) using the same method are shown in Figure 12. If in-river survivals are similar for C1 and C0 groups, as generally assumed, the differential SAR is evidence of delayed mortality for bypassed fish (see Budy et al. 2002). It is also possible that the trend in increasing TIRs may not be as pronounced for C0 fish as seen for C1 fish (Figure 11), particularly in years when the spill program is implemented.

A number of mechanisms may explain the temporal patterns of SARs. In-river migrants face migration delays through the FCRPS, which may have different consequences depending on seasonal timing. For example, later in-river migrants may:

- face increased exposure to elevated temperatures, contributing to poorer condition upon estuary arrival
- be further along in the smoltification process and be more vulnerable to migration delay
- miss the optimal window of estuary and early ocean environmental conditions
- face increased predation rates in the lower Columbia River mainstem, estuary and ocean

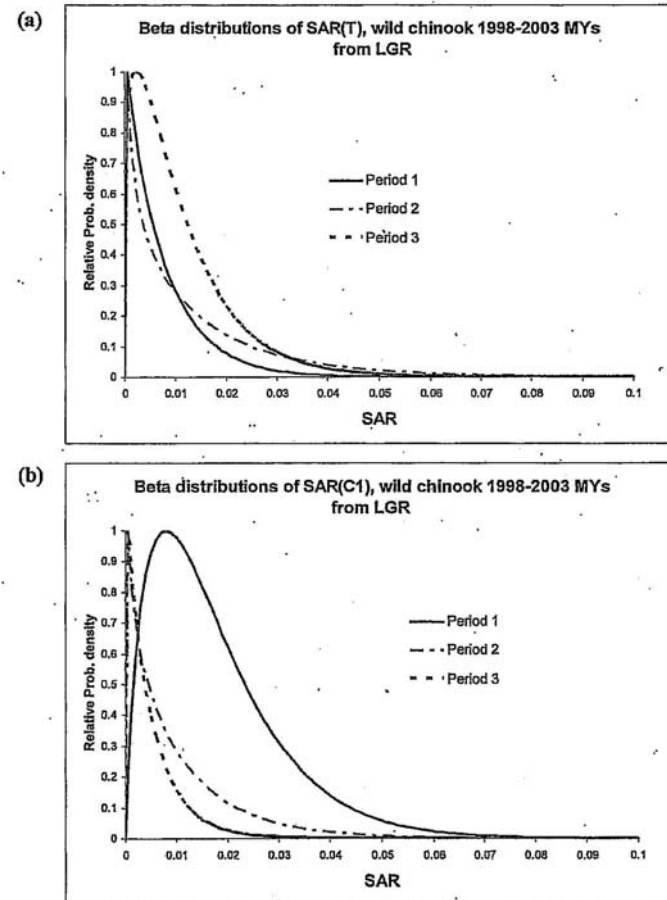


Figure 11. Distributions of SAR for smolts detected at Lower Granite and transported (a) or returned to the river (b), for the three migration periods.

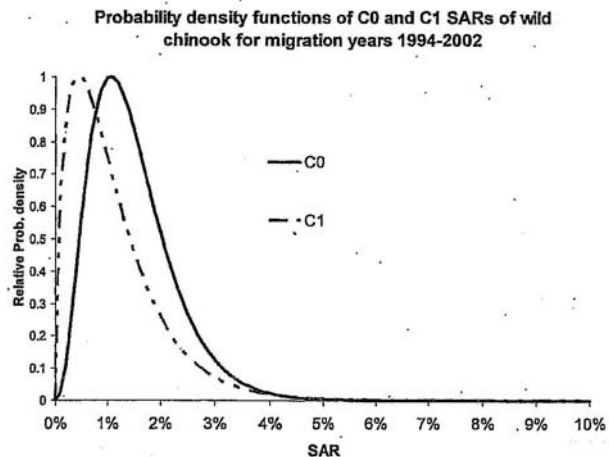


Figure 12. Distributions of SAR for true controls (C0) and smolts detected at Lower Granite and returned to the river (C1), 1994-2002 migration years.

2. SARs by Bonneville Arrival Timing: The numbers of Snake River wild spring/summer Chinook PIT-tagged smolts and returning adults from the CSS study groups T0, C0, and C1 were summarized for smolt arrival timing based on their detection at Bonneville Dam, at John Day Dam or trawl samples below Bonneville Dam (T. Berggren, pers. comm.), 2000-2003 migration years. Bonneville arrival dates for smolts detected only at John Day Dam or in the trawl were corrected for median travel times to or from the Bonneville detector. Numbers of PIT-tagged wild John Day River spring Chinook smolts and adults for the same arrival periods and years were included in the summary. SARs in this case represent smolts from Bonneville dam to adult returns to Bonneville dam.

The arrival timing of John Day wild smolts was primarily late April through May all years (similar to Snake River wild smolt timing at Lower Granite Dam). A combination of delayed migration of in-river smolts and transportation has altered the arrival timing of Snake River migrants to the lower Columbia River estuary. All groups of Snake River wild Chinook consistently experienced lower SARs (Bonneville to Bonneville) than John Day wild Chinook within the same arrival time period and for the season (Fig. 13, 14). In 2000 and 2001, SARs for the earliest transport Snake River groups apparently approached 10% (Fig. 13), but these were based on small sample sizes ($n < 70$) and the pattern did not continue in subsequent years².

The disparity between SARs for John Day River and Snake River wild Chinook, when they arrive to the lower Columbia River at the same time, provides additional support for the hypothesis of delayed hydrosystem mortality, and may shed light on likely mechanisms. The Comparative

² No adults returned from the earliest period from 68 transported smolts in 2002; and 1 returned from 661 transported smolts in 2003.

Survival Study analysts plan to more formally investigate the SAR patterns based on arrival timing and other factors in future years.

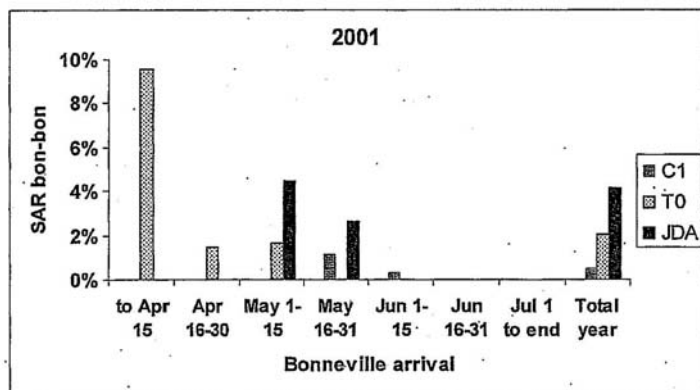
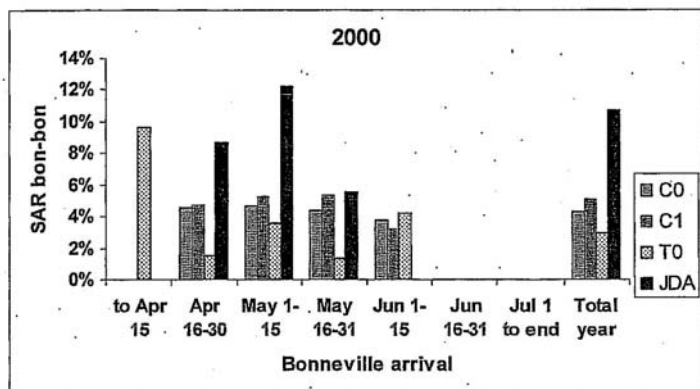


Figure 13. SAR by Bonneville arrival date and group for Snake River wild spring/summer Chinook (T0, C0, and C1) and John Day wild spring Chinook, 2000-2001. SARs calculated for all smolt groups > 50.

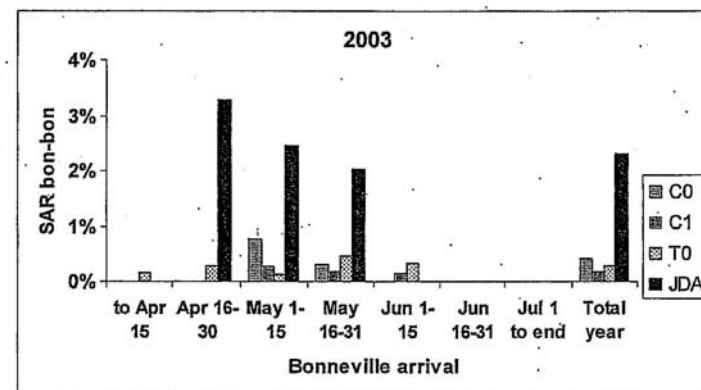
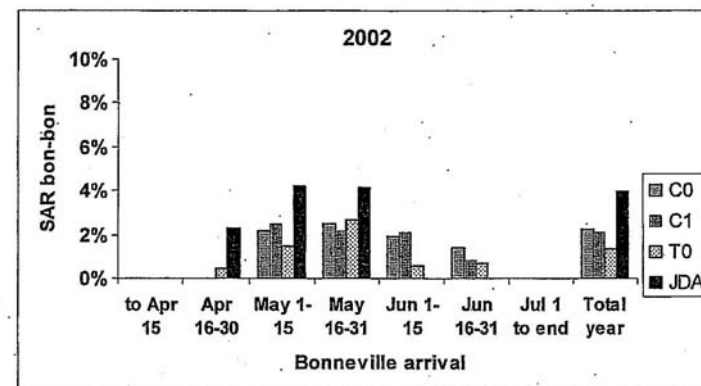


Figure 14. SAR by Bonneville arrival date and group for Snake River wild spring/summer Chinook (T0, C0, and C1) and John Day wild spring Chinook, 2002-2003. SARs calculated for all smolt groups > 50. Adult returns from 2003 complete only through 2-ocean returns.

VI. Summary and Conclusions

Based on our findings from multiple analyses, the hypothesis that a portion of the mortality that occurs in the estuary and ocean life stage is due to cumulative impacts of the FCRPS appears highly plausible. We explicitly described this hypothesis of delayed mortality relative to development and operation of the FCRPS and variants of this main hypothesis. We provided a summary, from the literature, for the mechanisms and the lines of evidence supporting this hypothesis.

We presented multiple analytical approaches addressing this delayed mortality for Snake River spring/summer Chinook. Results from updated and expanded analyses comparing upriver and downriver population performance continued to show that development and operation of the FCRPS was a key factor influencing levels of delayed mortality of Snake River spring/summer Chinook.

We developed new analyses relating survival rates for Snake River spring/summer Chinook to FCRPS and ocean/climate conditions, which did not rely on comparing upriver and downriver population performance. The analysis of Snake River populations alone included ocean/climatic variables, and water travel time relative to spawner-recruit residuals, smolt-to-adult return rates (SARs) and survival during the first year of ocean residence. Water travel time increased as the FCRPS was developed, and populations experienced a wide range of ocean/climatic conditions during the study period. Evaluation of the spawner-recruit residuals, SARs and early ocean survival showed that survival was related to water travel time, providing supporting evidence that there is a significant component of the survival during early ocean residence that is accounted for by delayed mortality, and related to construction and operation of the FCRPS. These analyses compliment the results from the upriver/downriver population performance model.

From this information there appears to be a delayed mortality component to survival during early ocean residence that is related to construction and operation of the FCRPS;

however survival rates are also strongly related to the PDO and upwelling indices (measures of oceanic climatic conditions). The magnitude of delayed hydrosystem mortality may be modified by ocean conditions.

The FCRPS has delayed migration of in-river fish; with later arriving components of the population exhibiting lower SARs. Additional support for delayed mortality associated with passage through the FCRPS is provided by within-season patterns of SARs for in-river migrants, SARs of bypassed vs. true in-river migrants, and the relatively higher SARs of John Day wild Chinook when they experience the same arrival timing at Bonneville Dam as Snake River wild Chinook.

The results of these multiple analyses provide compelling evidence that passage through the FCRPS strongly influences levels of delayed mortality of in-river migrants for these populations.

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Comment Letter No. 5 – Columbia River Inter-Tribal Fish Commission

- 5-1. Comment noted. Ecology is in agreement that continued salmon productivity is a vital component of water resource management. The Columbia River Water Management Act includes the development of water supplies to meet instream flow needs for fish.
- 5-2. Comment noted. See the responses to Comment Letters 1 and 2 for responses to the comments of the Confederated Tribes of the Umatilla Indian Reservation and Yakama Nation. Receipt of the economic report is acknowledged.
- 5-3. See the Master Responses regarding a Programmatic EIS and future project specific review.
- 5-4. Comment noted.
- 5-5. The information you provided on stream flows is noted. Ecology does not dispute that there is a relationship between stream flows and salmonid survival. It is known that “when river flows become critically low or when water temperatures are excessively high, there are pronounced changes in salmon migratory behavior and lower survival rates are expected” (National Research Council, 2004). This relationship is documented by the Fish Passage Center information cited in your comment and in the document by Petrosky et al. that you provided (Fish Passage Center, 2006, Petrosky et al. 2006). However, as concluded by the National Research Council and presented in Section 1.3.1.3, the exact nature of that relationship, the quantity of flow and survival specific to flow, is not certain.

One of the purposes of the Management Program is to provide additional flows for fish. Ecology will pursue a full range of options for augmenting instream flows. See the revised Section 2.1.2.4 in the Final EIS for a description of Ecology’s program for developing water supplies for instream flows. Also, see the Master Response to the July/August mitigation issue regarding Ecology’s proposal to provide stream flows during critical periods for fish. As stated in the response to Comment 1-30, Ecology’s approach to implementing the Management Program will be an incremental one.

Implementing the Management Program is not in itself expected to significantly reduce or eliminate existing threats to ESA-listed species, but modest improvements in conditions could occur. Ecology will continue to coordinate with resource managers throughout the Columbia River Basin to ensure that conditions for ESA-listed species are maintained and/or improved through a variety of management approaches, including the protection and augmentation of stream flows.

- 5-6. The Columbia River Management Act established two goals for the Management Program—developing new water supplies to meet economic and community development needs and to meet instream flow needs for fish. The Management Program includes projects to meet both goals. Additional information on Ecology’s program for improving instream flows has been added to Section 2.1.2.4 of the Final EIS.

- 5-7. An enhanced discussion of the effects of water withdrawals on Pacific lamprey has been added to the Final EIS.
- 5-8. Comment noted.
- 5-9. The EIS acknowledges that storage options have the potential to negatively affect fish. Section 4.1.1.6 includes a discussion of these potential impacts. Ecology will consider a wide range of factors, including potential impacts to fish, when considering specific projects for implementation of the Management Program. Impacts to fish populations and instream water users will be evaluated during project specific environmental review.
- 5-10. See the response to Comment 1-10 regarding revisions to flood control management. Ecology will review the legal findings regarding the BiOp Remand Process when they become available and incorporate those findings as appropriate into the Management Program.
- 5-11. Comment noted. As noted in response to Comment Letter 1, Ecology will continue to coordinate with the Confederated Tribes of the Umatilla Reservation.
- 5-12. See the response to Comment 2-27.
- 5-13. Comment noted. A 60-day consultation period and a 30-day public comment period will be held on the CSRIA VRA. See also the response to Comment 5-14 regarding the mitigation fee.
- 5-14. Comment noted. Ecology has reviewed the referenced report. The report evaluates mitigation funding methods and their associated risks for strategies like the draft mitigation plan prepared by Ecology and the Washington Department of Fish and Wildlife in 2002 for several Columbia River proposed permits and the mitigation scenarios presented to the National Research Council. The 2002 draft mitigation plan provided in-kind and potential out-of-kind mitigation actions that differ significantly from the draft VRA proposed by CSRIA and were to be funded by a \$10 per acre-foot annual fee. Permits issued based on the draft CSRIA VRA would be based on mitigation already in the Trust Water Rights Program. The concern about vulnerability in early years is valid for the 2002 mitigation plan, however, permits issued pursuant to RCW 90.90 will rely on water rights acquired and placed into the trust water rights program. In-kind mitigation required to meet the VRA mitigation standard would be in place before the authorization to use water is given. See the response to Comment 1-48.
- 5-15. Comment noted.
- 5-16. Comment noted. Additional information and analysis on drawdown amounts will be provided in the Supplemental EIS that Ecology will be preparing on the Lake Roosevelt drawdown.
- 5-17. SEPA Rules (WAC 197-11) use the term “affected tribes”.
- 5-18. See the response to Comment 1-30 regarding Ecology’s incremental approach to stream flow improvements. Ecology has worked with the Columbia River Policy Advisory Group and

others to refine the “no negative impact” criteria. The preferred alternative is presented in Section 6.1.9.

- 5-19. The No Action Alternative described in Section 2.5.1.2 is specific to the Lake Roosevelt drawdown proposed by Ecology and Reclamation. It does not preclude other proposals for drawdowns of the reservoir, which would be evaluated under separate environmental review. Text clarifying the No Action Alternative for Lake Roosevelt has been added to Section 2.5.1.2. Ecology will prepare a Supplemental EIS on the Lake Roosevelt drawdown project that will include additional evaluation of water quality impacts.
- 5-20. Comment noted. The discussion in Section 3.6.1.4 is intended to explain federal reserved water rights that are additional to the tribal federal reserved water rights discussed in Section 3.6.1.3 and Appendix D.
- 5-21. The EIS does not specifically mention Hanford fall Chinook or sturgeon stocks. The information provided about the health of the stocks is noted.
- 5-22. The inclusion of these references is acknowledged.



IN REPLY REFER TO:

UCA-1614
ENV-2.00

United States Department of the Interior

BUREAU OF RECLAMATION
Upper Columbia Area Office
1917 Marsh Road
Yakima, Washington 98901-2058

NOV 20 2006

Mr. Derek Sandison
Central Regional Director
State of Washington Department of Ecology
15 West Yakima Avenue, Suite 200
Yakima, WA. 98902Subject: Comments on the Draft Programmatic Environmental Impact Statement for the
Columbia River Water Management Program

Dear Mr. Sandison:

Thank you for the opportunity to comment on the Draft Programmatic Environmental Impact Statement for the Columbia River Water Management Program. Please find enclosed our comments regarding this document.

- 6-1 Our main concern is that the document identifies several immediate actions, but does not distinguish between the Bureau of Reclamation and the State's role in these actions. The State's proposed action is to fund and provide permitting for these projects; Reclamation is physically taking these actions, i.e. the supplemental feed route, drawdown of Lake Roosevelt, etc. The distinction between Ecology and Reclamation's responsibilities needs to be clearly defined.
- 6-2 Additionally, the Odessa Special Study is not an early implementation action, while the Lake Roosevelt drawdown contract is an early action. While both projects involve deliveries of project water to Odessa, they are separate and distinct.
- 6-3 Also ensure that the descriptions of the actions are accurate. For example, on page 2-9, Section 2.1.2.1, the Odessa Special Study is described as including a 30,000 acre feet diversion, which is actually part of the Roosevelt drawdown project.
- 6-4 Finally, the latest Odessa report, dated September 2006, is likely a more appropriate source for the final Environmental Impact Statement than the February 2006 Plan of Study.

Again, thank you for the opportunity to comment.

Sincerely,

Gerald W. Kelso
Area Manager

Enclosure

cc: Ms. Debbie Bird
Superintendent
National Park Service
Lake Roosevelt National Recreation Area
1008 Crest Drive
Coulee Dam, WA 99116
(w/copy of enclosure)

**Comments on the Draft Programmatic Environmental Impact Statement
for the Columbia River Water Management Program**

Reclamation
November, 2006

	Page	Paragraph	Comment
6-5	S-2 & S-3		The description of the proposed actions does not clearly describe the State's versus Reclamation's portion of the proposed actions.
6-6	S-3	S.2.2.1	These actions were requested by the State in the development of the 3-party MOU. Reclamation is cooperating with the State on these actions, but these were State proposals not Reclamation proposals.
6-7	S-3	S.2.2.1	Last sentence should include the Spokane Tribe of Indians in addition to the Confederated Tribes of the Colville Reservation.
6-8	S-3	S. 2.2.2.	Second sentence needs to include East Columbia Basin Irrigation District as well as the South Columbia Basin Irrigation District.
6-9	S-8	S.3.2.1	While the additional drawdowns are within current operations NEPA will have to be done to enter into the contracts and agreements with the State. As part of that process potential impacts will need to be addressed.
6-10	S-8	S.3.2.1	1 st paragraph, 2 nd sentence: Delete the words "Reclamation has determined that the ..." and replace as follows: "Drawdowns of the lake are within normal operations of the reservoir. National Environmental Policy Act (NEPA) compliance will be completed by Reclamation on Federal actions."
6-11			There is an incorrect assumption that there will be expansion of irrigated agriculture.
6-12	S-9	S.3.2.2	The proposed alternative feed route would not result in a change in cropping patterns or new irrigation in the South Columbia Basin Irrigation District. The amount of feed to Potholes reservoirs and deliveries to the South District would not change as a result of this action.

6-13	S-9	S.3.2.2	1st paragraph, next to last sentence. Change to read as follows: "The supplemental feed route is intended to provide a more reliable water supply to the South Columbia Basin Irrigation District. Mitigation/enhancement measures would be developed in Reclamation's NEPA for the project."
6-14	1-1		3 rd paragraph, next to last sentence. Delete "Reclamation has determined that the Lake Roosevelt drawdown does not require NEPA documentation because such " and change to read "Although drawdowns were included in the original authorization for the project, Reclamation will do NEPA on any Federal action for use of water such as water service contracts, trust water rights, etc. Such projects will require Ecology to issue permits and/or ... SEPA."
6-15	1-3	1.3	The described competition between salmon and irrigation is perhaps overstated. Irrigation in the Columbia Basin consumes about 10% of the total discharge of the system. While conflicts between irrigation and salmon have arisen this text needs to put it into perspective relative to the other factors which have affected salmon populations.
6-16	1-8	1.4	The Odessa Subarea Special Study is not referenced in Section 1.2 as stated in the last sentence.
6-17	2-5		The Yakima Basin Storage Study is a feasibility level study not an appraisal study.
6-18	2-5		3 rd paragraph, last line, change to read: "It is estimated that a feasibility study and EIS would require three years for completion."
6-19	2-5		Last paragraph, change to: Reclamation is also involved in the Yakima River Basin Water Storage Feasibility Study. One of the storage alternatives identified in the study is a large reservoir, approximately 30 miles east of Yakima, identified as the Black Rock Reservoir.
6-20	2-8		About 121,000 acres of the Odessa Subarea are located within the authorized boundaries of the Columbia Basin Project.

6-21	2-8		Last sentence in partial paragraph at the top of the page: Should read: "During the Appraisal Assessment analysis Reclamation evaluated Wymer reservoir in conjunction with Bumping Lake Enlargement and the Keechelus-to-Kachess pipeline by filling it with water available from the Yakima River when the flows exceeded current target flows. Later, Reclamation evaluated Wymer with a Pump Exchange from the mouth of the Yakima River and filling Wymer from increased winter flows from Cle Elum reservoir and excess flows in the Yakima River."
6-22	2-8		Last line on page, change "120 acres" to 121,000 acres.
6-23	2-8		"Odessa Subarea" should be changed to "Odessa Ground Water Management Subarea."
6-24	2-8	2.1.2.1	There are 121,000 acres of groundwater irrigated acres within the Special Study area that are located within the Odessa Subarea, not Odessa Subarea acres
6-25	2-9		First line on page, change "230 acres" to 49,000 acres.
6-26	2-9		First bullet, change to read: "Construction of a scaled down version of the East High Canal . . ."
6-27	2-9		2 nd paragraph, 1 st line change "144,000 to 360,000 acre-feet" to "160,000 to 520,000 acre-feet."
6-28	2-9		4 th bullet in second set of bullets, change to read: "Construction of new off-channel reservoirs at Dry Coulee, Rocky Coulee, Black Rock Coulee, Lind Coulee and Lower Crab Creek, all in Grant County."
6-29	2-9		Second paragraph. The range of water supply needed for the alternatives are 160,000 to 520,000 acre-feet. Modification of operations to existing storage facilities may be needed but they are not considered "substantial" modifications.
6-30	2-9		The sentence that starts "Among the storage options under . . ." Is more accurately revised to state "Among the <u>water supply options</u> under consideration . . ." The bulleted list that follows is not limited only to storage options.

6-31	2-9		The first bulleted item, "Diversion of an additional 30,000 acre-feet from reoperation of Lake Roosevelt" is not included in the Odessa Special Study.
6-32	2-9		Fourth bulleted item. Black Rock Coulee should be deleted from the list. It is not a water supply or storage option for the alternatives. It is strictly a reregulating reservoir that is needed for alternatives using the East High. Lower Crab Creek should be added to the bullet.
6-33	2-9		Reclamation's NEPA compliance will be initiated in 2008.
6-34			1 st bullet: Add, "To serve the current groundwater irrigated lands."
6-35			3 rd bullet: Add, "Enlargement and partial extension..."
6-36	2-9		4 th bullet: Add, "north of Interstate 90."
6-37			3 rd paragraph: Change June to September.
6-38	2-11		"Yakima Basin Storage Study" to "Yakima River Basin Water Storage Feasibility Study."
6-39	2-21	2.3	It would be more accurate to indicate that Ecology would not have a role in implementation of the supplemental feed route, but the project may still be implemented by other parties.
6-40	2-23	2.5.1	1 st paragraph, line 2, change to read: "As part of the Memorandum . . . (Section 1.3.1.1), Reclamation will file appropriate water right applications . . ."
6-41			1 st paragraph, line 6, add "Spokane Tribe of Indians" along with the "Confederated Tribes of the Colville Reservation."
6-42	2-24	2.5.1.1	The full 82,500 acre-feet would not be diverted from FDR. Only the 30, 000 acre-feet for the Odessa sub-area would actually be diverted at FDR. The rest of the water would be released from FDR into the river and subsequently diverted at points downstream.
6-43	2-24	2.5.1.1	2 nd paragraph, line 3, change to read: ". . . approximately 40 feet in an average year and as much as 80 feet in a high flow year for flood control space."

6-44	2-27	2.5.2	1 st paragraph, line 3, change to read: "Potholes reservoir is located just south of Moses Lake and has 322,200 acre-feet of active storage and a total of 511,700 acre-feet." 2 nd paragraph, line 11, change "204,000" to "231,000."
6-45			
6-46	2-28	Fig 2.4	Figure should be modified to show Rocky Coulee Wasteway and continuation of the East Low Canal to the south.
6-47	3-3	Table 3-18	The treaties generally reserved fishing rights at usual and accustomed places, but the hunting privilege was reserved for open and unclaimed lands.
6-48	3-7		Reclamation and the Corps of Engineers operate the dams that make up the FCRPS while Bonneville markets the power excess to individual project needs.
6-49	3-7	3.1.2	Paragraph 2, 2 nd sentence should read: "Because of World War II, work on the irrigation system was delayed and the first Project water deliveries were delayed until 1952."
6-50	3-15		The average annual runoff figure reported is as measured at the Dalles rather than at the mouth of the Columbia River.
6-51	3-18	3 rd paragraph	"Flow targets" needs to be replaced with "flow objectives."
6-52	3-19	Table 3-4	All Columbia Basin Project water rights have a pre-1980 priority date. Table note should be rewritten as follows: "The Columbia Basin Project was authorized to irrigate 1,029,000 acres at its completion; currently the project irrigates about 671,000 acres."
6-53			
6-54	3-19	1 st paragraph	Again, replace term "flow targets" with "flow objectives."
6-55	3-20	3.4.1.3	Cold Springs and Haystack reservoirs are located in Oregon.
6-56	3-21		Paragraph 2, line 4, change 621,000 to 671,000.

6-57	3-21	2 nd paragraph	CBP does not use water stored in Banks Lake and Potholes Reservoir only. Might be best to state that the CBP uses water initially stored in Lake Roosevelt and then diverted to Banks Lake and Potholes Reservoir for delivery to CBP lands. Also about 671,000 acres are irrigated not 621,000 acres.
6-58			
6-59	3-23		The 361,000 acre figure apparently applies to lands irrigated that produce a crop, not to all irrigated lands.
6-60	3-23		Paragraph 2, line 1, change "Columbia River Basin Project" to "Columbia Basin Project."
6-61	3-23		Paragraph 2, line 7, change "over 620,000 acres" to "over 671,000 acres that are currently irrigated out of the authorized total of 1,029,000 acres."
6-62	3-23	2 nd paragraph	Should be revised to state "The CBP currently irrigates about 671,000 acres and is authorized to irrigate up to 1,029,000 acres." The 6 th sentence should be deleted. The 7 th sentence is not correct. The Columbia Basin Project uses an average annual 2.65 million acre-feet as measured at the Main Canal during the 2000-2004 period.
6-63			
6-64	3-28		Paragraph 2, line 1, change to read: "Winter/spring spill from Potholes Reservoir, if required, is passed down Lower Crab Creek. Naturally occurring flood water can also be passed down Lower Crab Creek." Delete the entire rest of this paragraph.
6-65	3-29	Table 3-7	In previous studies, rule curves are usually not included in public documents and are considered "sensitive" information. We ask that the State remove this information.
6-66			The discussion in this section is not relevant to the Lake Roosevelt drawdown although that is the section title. This is actually the Odessa Subarea discussion.
6-67	3-37	3.5.3.1	References Reclamation's Odessa Plan of Study (February 2006) to support some of the factual statements about the state of the aquifer which is not a credible source. Ecology must have some technical documents that they can use to support these statements.

6-68	3-46	3.6.1.6	There is a quote relative to water rights and harm that refers to "healthy fish populations." The take provisions apply to actual individuals of the listed species, not to populations. Populations of listed species may not be healthy, but if the activity does not result in the actual harassment to individuals of the species then there is no "take."
6-69	3-46	3.6.1.6	Discussions here seem to mix the concepts of take and jeopardy. Jeopardy is associated only with actions where the federal government funds, carries out, or approves the activity. The take prohibition applies to all actions, but only deals with the actual take of individuals of listed species.
6-70	3-86		There have been a number of surveys in the Crab Creek area, most notably work done by James Chatters, specifically: <u>Survey and Evaluation of Cultural Resources along Crab Creek and Dry Coulee, Grant County, Washington</u> . Office of Public Archaeology Institute for Environmental Studies, University of Washington. January, 1979.
6-71	4-48		Last paragraph, 1 st line. Meaning unclear.
6-72	5-18		Last line of paragraph 3, double check number and date of Drought Relief Act. This was recently re-enacted so it would have a current date and new P.L. number.
6-73	5-20		It would not be physically possible to store the Trust Water Program instream flow component in Banks Lake and then release it in a drought year. The instream flow component was intended to offset any impacts created by the diversions. To the extent the benefits of the releases are insignificant; they are offsetting what must be insignificant impacts from the diversions.
6-74	5-27		The alternate feed routes do not result in increased feed to Potholes. The amount of feed remains the same and there is no change in the relative amount of feed or the relative amount of irrigation runoff/return flow into the reservoir.
6-75	5-27		The Crab Creek feed route would not be longer than the current route. The W-20 and Frenchman Hills routes would be longer but feed would end in mid-May. It seems unlikely that the alternative feed routes would have any affect on water temperatures in the receiving waters.

6-76	5-28		It is unclear how contaminants in Potholes, such as fecal coliform or 2,3,7,8-TCDD could increase as a result of either the Crab Creek alternative or the W-20 proposal. The water to be fed comes from Banks Lake via Billy Clapp no matter which route is used; the routes do not involve activities that would likely increase loading of those contaminants.
6-77	5-29		The supplemental feed routes will not change the storage in Potholes Reservoir.
6-78	5-30		Crab Creek is not a navigable water of the state.
6-79	5-31		The channel can be dry for years at a time and is seldom flowing. This suggests that it is only dewatered during low flow periods, which is in error. The stream seldom supports any fish populations.
6-80	Appendix E		WRIAs, 37, 38, 39 (Yakima Basin), 2nd sentence: Should say: "The goals of the storage study are to provide a more normative flow condition for anadromous fish, a more reliable water supply for proratable irrigation water users, and water for future municipal water needs."
6-81	Appendix E		WRIAs, 37, 38, 39 (Yakima Basin), 3rd sentence: Change to read: "...evaluating at least two alternatives..."

Comment Letter No. 6 – U.S. Dept. of the Interior – Bureau of Reclamation

- 6-1. Clarifying information has been added to Section 2.5.
- 6-2. The Odessa Special Study is not included as an Early Action in the EIS as stated in Section 2.1.2.1. The Odessa Special Study is an example of a type of storage project that could be undertaken as part of the storage component of the Management Program.
- 6-3. The Final EIS text has been revised to remove that option.
- 6-4. Information from the September 2006 report has been incorporated into the Final EIS. It was not available when the Draft EIS was printed.
- 6-5. This has been clarified in Section 2.5. Section S2.2 is a summary section only.
- 6-6. The Final EIS text has been revised to clarify this.
- 6-7. The Final EIS text has been revised to include the Spokane Tribe.
- 6-8. The East Columbia Basin Irrigation District has been added to Section S.2.2.2 and Section 2.5.2.
- 6-9. The Final EIS text has been revised to clarify Reclamation’s NEPA review of the project.
- 6-10. See the response to Comment 6-9.
- 6-11. The Final EIS notes that there is a “potential” for expansion of irrigated agriculture, and it is listed as a potential impact, not an assumption. Because this is a programmatic evaluation, the range of potential impacts is discussed, which may overstate the potential for some impacts. The specific range of impact will be discussed as part of project level evaluations.
- 6-12. Section S.3.2.2 has been revised to clarify that no additional water would be delivered to Potholes Reservoir.
- 6-13. The Final EIS text has been revised.
- 6-14. The Final EIS text has been revised.
- 6-15. The Final EIS text has been revised.
- 6-16. The section number has been corrected to Section 1.1.
- 6-17. See the response to Comment 2-19.
- 6-18. The Final EIS text has been revised.
- 6-19. The Final EIS text has been revised.
- 6-20. The Final EIS text has been revised.

- 6-21. The Final EIS text has been revised.
- 6-22. The Final EIS text has been revised.
- 6-23. The Final EIS text has been revised.
- 6-24. The Final EIS text has been revised.
- 6-25. The Final EIS text has been revised.
- 6-26. The Final EIS text has been revised.
- 6-27. The Final EIS text has been revised.
- 6-28. The Final EIS text has been revised.
- 6-29. The Final EIS text has been revised.
- 6-30. The Final EIS text has been revised.
- 6-31. See the response to Comment 6-3.
- 6-32. The Final EIS text has been revised.
- 6-33. The Final EIS text has been revised.
- 6-34. The Final EIS text has been revised.
- 6-35. The Final EIS text has been revised.
- 6-36. The Final EIS text has been revised.
- 6-37. The Final EIS text has been revised.
- 6-38. The Final EIS text has been revised.
- 6-39. The Final EIS text has been revised..
- 6-40. The Final EIS text has been revised.
- 6-41. The Final EIS text has been revised to include the Spokane Tribe.
- 6-42. The Final EIS text has been revised.
- 6-43. The Final EIS text has been revised.
- 6-44. The Final EIS text has been revised.
- 6-45. The Final EIS text has been revised.

- 6-46. A revised figure 2-4 has been included in the Final EIS.
- 6-47. Table 3-3 has been revised in the Final EIS.
- 6-48. Comment noted. No change to text is needed.
- 6-49. The Final EIS text has been revised.
- 6-50. The text is corrected with the correct location of measurement.
- 6-51. The Final EIS text has been revised.
- 6-52. Table 3-3 has been revised in the Final EIS
- 6-53. The Final EIS text has been revised.
- 6-54. The Final EIS text has been revised.
- 6-55. The Final EIS text has been revised.
- 6-56. The Final EIS text has been revised.
- 6-57. The Final EIS text has been revised.
- 6-58. The Final EIS text has been revised.
- 6-59. The reference to the 361,000 acres was modified.
- 6-60. The Final EIS text has been revised.
- 6-61. The Final EIS text has been revised.
- 6-62. The Final EIS text has been revised.
- 6-63. The Final EIS text has been revised.
- 6-64. The text has been modified as suggested in the comment.
- 6-65. The text has been modified as suggested in the comment.
- 6-66. See the response to Comment 3-26.

Section 3.5 addresses ground water in the affected environment. Some water provided by additional drawdown of Lake Roosevelt may be used to replace ground water withdrawals in the Odessa Subarea. The discussion in Section 3.5.3.1 provides context regarding declining ground water levels in the Odessa Subarea and the need for replacement water provided by Roosevelt drawdown.

- 6-67. The text in section 3.5.3.1 has been revised and additional references have been included to support factual statements about the aquifer. The water quality discussion was rephrased to

exclude factual statements about water quality in the Odessa Subarea from the Odessa Subarea Plan of Study prepared by Reclamation.

- 6-68. Comment noted. The text in Section 3.6.1.6 has been changed to clarify the scope of a "take" under the ESA.
- 6-69. Comment noted. The text in Section 3.6.1.6 has been changed to distinguish "jeopardy" from "take".
- 6-70. Text has been changed to clarify the summary of survey information in Section 3.10.4.2. Generally, DAHP has relied on survey information from 1995 to the present because of the standards to which the surveys were conducted (subsurface testing, reporting standards, quality of maps provided). The sites identified by Chatters in 1978 are included in the count of sites in the vicinity of Crab Creek, although the citation was inadvertently omitted from Chapter 7.
- 6-71. Comment noted. The sentence has been amended.
- 6-72. The Final EIS has been revised to reflect the recent passage of the extension of the Drought Relief Act.
- 6-73. The Final EIS text has been revised to indicate that Trust Water would be stored in Lake Roosevelt.
- 6-74. The text in Section 5.2.1.3 was clarified to indicate that the annual volume of supplemental feed flows does not change, but the timing of the flow through the supplemental feed routes would change. The additional water refers to additional water during the spring without an increase in the annual volume of feed flow that is delivered to Potholes Reservoir.
- 6-75. Section 5.2.1.3 was revised to reflect the fact that the water from the supplemental feed routes is not expected to increase the temperature of the receiving waters because the Crab Creek alternative is not longer than the existing route and the use of the W-20 and Frenchman Hills Route would end in mid-May.
- 6-76. The water flowing from Banks Lake via Billy Clapp Lake would be of the same quality, but as it flows through the supplemental feed route system, it mixes with the water already in the system. If that water contains certain contaminants, then changing the timing of the feed flow may result in more contaminants being picked up as the water flows through the system. In addition, spreading the total volume of feed flow over a longer period (the annual volume of feed flow is not expected to change) decreases the dilution effects from larger volumes of flows through the supplemental feed route(s). This information was added to Section 5.2.1.3 for clarification. Specific information concerning the water quality impacts from the additional feed routes will be evaluated as part of Reclamation's EA on the Supplemental Feed Routes.
- 6-77. The ground water impacts discussion in section 5.2.1.4 was revised to reflect the fact that the supplemental feed routes would not increase the water level of Potholes Reservoir.

- 6-78. Impacts to ground water were revised in section 5.2.1.4 to reflect the fact that the supplemental feed routes would increase the water level of Potholes Reservoir by less than one foot.
- 6-79. The text in the Final EIS has been revised to clarify the status of flows in Crab Creek.
- 6-80. The Final EIS text has been revised.
- 6-81. The Final EIS text has been revised.



United States Department of the Interior

NATIONAL PARK SERVICE
Lake Roosevelt National Recreation Area
1008 Crest Drive
Coulee Dam, Washington 99116-1259

IN REPLY REFER TO:
L30

November 20, 2006

Derek Sandison
Regional Director
Department of Ecology
15 West Yakima Ave., Suite 200
Yakima WA 98902

Dear Mr. Sandison,

I am writing today in reference to the Draft Programmatic Impact Statement (DEIS) for the Columbia River Water Management Program. Please consider these comments as reflecting the viewpoint of the National Park Service (NPS) on the proposed actions identified under both Early Actions and Management Program Components.

Overall, your understanding of the extent and nature of the authority given to the National Park Service by the Secretary of the Interior to manage Lake Roosevelt National Recreation Area (NRA) is incomplete (3-78). Portions of the shoreline and water surface managed by the NPS include approximately 312 miles of shoreline, 47,438 acres of the 81,389-acre water surface, and 12,936 acres of land, or approximately 60% of the Upper Columbia River and its tributary watersheds. The developed facilities that the NPS manages for the public include 22 boat launch ramp areas, 27 campgrounds, and three concessionaire-operated marinas that provide moorage, boat rental, fuel, supplies, food service, and other services. Visitation to the recreation area has been between 1.3 and 1.5 million for the last several years, and has a significant impact on the economies of Lincoln, Ferry, and Stevens counties. The observation noted in the DEIS that "the recreation area is largely undeveloped" reflects a specific management direction to protect the area's scenic qualities documented in the recreation area's 2001 General Management Plan, not a general lack of interest in or visitation to, Lake Roosevelt NRA. Finally, Title 16 of the United States Code Subchapter One directs the National Park Service to "promote and regulate the use of the Federal areas known as national parks, monuments, and reservations (later amended to include all units of the NPS), which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."



Therefore, we conclude that your DEIS is flawed by the failure of the Responsible Official to consult with and obtain the comments of the NPS as required by WAC 197-11-060 (4). Our comments on specific sections of the DEIS follow.

- 7-2 1. **Proposal and Alternatives.** The impacts from the amount and timing of the additional water drawn from Lake Roosevelt that is proposed under the Early Action proposal are not well characterized. Although lake levels can fluctuate from 1208 to 1290 feet mean sea level during the months of March – May, they remain relatively stable at 1278 to 1290 feet mean sea level for the months of June, July, and August.
- 7-3 2. **Socioeconomics.** The DEIS does not adequately identify or discuss the economic value of the tourism to Lake Roosevelt NRA to the surrounding counties. All three of the marina concession operations, operating under contract with the NPS, would be negatively impacted. Dock systems, including rental slips, could be left high and dry during the busiest time of the year. Since existing rental slips are reserved well in advance, there would be no place for the boats assigned to the affected slips to go. The ability of the concessionaires to make a profit during the relatively short summer season would be negatively impacted, potentially putting these contracts at risk.
- 7-4 3. **Cultural Resources.** Archeological surveys of the NRA below 1290 feet mean sea level have been limited. The NPS considers the archeological sites an important and significant resource and their protection is inherent to the agency's mission. Higher lake levels protect over 200 submerged archeological sites, which could potentially suffer exposure when draw downs make them accessible to looting and damage from vehicles driven illegally on the exposed beaches. These sites are especially vulnerable during the peak visitor season.
- 7-5 4. **Impacts and Mitigation Measures for Early Actions.** As noted above, the impacts from the amount and timing of additional water drawn from Lake Roosevelt that is predicted under the Early Action proposal are not well characterized. An additional draw of one to one and one-half feet of water to elevations as low as 1276.5 mean sea level, will cause as many as 7, or approximately one-third, of our launch ramps to become unusable and is not within the normal range of lake operations for those months and should not be characterized as such. Swim platforms at a number of popular swimming beaches will be beached, and swimmers would be pushed outside the protective log booms. We recently spent nearly \$100,000 of our recreational fee dollars – revenue generated by daily and annual boat launch permits – to retrofit our facilities to be usable at the current summer draw down levels. Funding for additional retrofitting is not available and in some cases it is just not possible to further extend ramps. As noted above, the marina operations at all three of the concession operations operating under contract to the NPS would be adversely impacted. Although the Two Rivers Marina on the Spokane Indian Reservation is not a NPS facility, their launch ramp becomes unusable at 1280 feet mean sea level, pushing hundreds of additional visitors across the Spokane River to the already over-crowded Fort Spokane facilities on the NRA.
- 7-6 5. We also point out that the DEIS fails to identify or discuss impacts to the Spokane Tribe of Indians. The NPS, Colville Confederated Tribes, and the Spokane Tribe of Indians are all signatories to the Lake Roosevelt Cooperative Management Agreement, which requires that

7-6 the parties communicate, coordinate and standardize the management of recreational activities and the protection of the environment in their respective areas to the extent possible.

7-7 Based on our review and identification of these deficiencies, we recommend that the DEIS be rewritten after the Department of Ecology consults with the National Park Service to properly identify the potential impacts to the NRA's recreational, natural, and cultural resources as required by law and policy. Only then can the Deciding Official make a fully informed decision regarding the appropriate management strategy to adequately address this extremely sensitive but important issue. We appreciate this opportunity to comment on the DEIS and look forward to working with you in the future.

Sincerely,

Deborah Bird

Deborah Bird
Superintendent

cc: County Commissioners
Ferry County
290 E Tessie Avenue
Republic WA 99166

Bill Gray, Manager
Ephrata District Office
US Bureau of Reclamation
32 "C" Street NW
Ephrata WA 98823

Merrill Ott, Commissioner
Stevens County Commission
215 S. Oak Street
Colville WA 99114

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Spokane Tribe of Indians
PO Box 100
Wellpinit WA 99040

Ed Wimberly
Lake Roosevelt Vacations Inc.
Box 340
Kettle Falls WA 98141

Comment Letter No. 7 – U.S. Dept. of the Interior – National Park Service

- 7-1. Additional information has been added to Sections 3.1.2 and 3.9.4.1 regarding the National Recreation Area.
- 7-2. Comment noted. Additional information and analysis on the impacts from the amount and timing of additional drawdown will be provided in the Supplemental EIS that Ecology will be preparing on the Lake Roosevelt drawdown.
- 7-3. See the response to Comment 4-25.
- 7-4. These comments are addressed in Sections 3.10.4.1 and 5.1.1.9.
- 7-5. Comment noted. Additional information and analysis on the impacts from the additional drawdown will be provided in the Supplemental EIS that Ecology will be preparing on the Lake Roosevelt drawdown.
- 7-6. Additional information on impacts to Spokane Tribe has been added to the Final EIS. Ecology will continue to coordinate with all parties, including the Spokane Tribe, as the Supplemental EIS is developed. Although it is not anticipated that the drawdowns will require changes to the Lake Roosevelt Cooperative Management Agreement, Ecology will meet with the representatives to coordinate Future Studies for Off Channel Reservoir Proposals.
- 7-7. Comment noted.



Department of Energy

Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208-3621

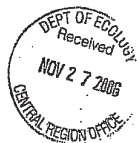
Official File

POWER SERVICES

November 16, 2006

In reply refer to: PG/5

Mr. Derek Sandison, Central Regional Director
Washington State Department of Ecology
Central Regional Office
15 W. Yakima Avenue, Suite 200
Yakima, WA 98902-3452



Dear Mr. Sandison:

Thanks for the opportunity to review and comment on the Draft Programmatic Environmental Impact Statement (EIS) for the proposed Columbia River Water Management Program. We have reviewed the draft EIS and offer the following observations and comments.

8-1 As you are aware, the Bonneville Power Administration (BPA) is a federal agency that has a statutory obligation to market and transmit the power generated by federal dams along the Columbia River, known as the Federal Columbia River Power System (FCRPS), while balancing our other responsibilities such as fish and wildlife. We believe it is important to fully understand the impact of activities or programs that could affect our numerous responsibilities regarding the FCRPS before they are implemented. The draft EIS "Chapter 4 Impacts and Mitigation Measures", however, says very little about the power impacts of the proposed Columbia River Water Management Program other than to say that, "diverting water from the Columbia River for storage and use elsewhere might reduce the amount of water available to generate hydropower and support navigation activities."(pg 4-21) We believe this to be understated. Furthermore, the EIS is silent to the fact that lifting (the lowest lift of the four remaining for storage projects is 210 feet) at least one million acre feet would create a winter time load greater than most utilities in the area. The draft EIS is silent as well in regards to the impacts to the regional transmission system

8-2 As the State of Washington moves forward with consideration and development of its proposed Columbia River Water Management Program, we believe that a more in depth assessment of the power impacts of the proposed actions will need to be completed. While the initial Columbia River Initiative had an economic study which looked at the power implications and the potential loss in revenue, that information is now outdated. Any proposed actions under the currently proposed Program should be reviewed with new information regarding the price of power and the replacement or the opportunity cost of power. We are interested in working with the State on future assessments of these costs.

8-3

In addition, we would like to clarify a statement made in the EIS about the duration of the Columbia River Treaty. The EIS states that the Treaty "has a 60-year duration." (p. 3-45). In fact, the Treaty has no termination date. The Treaty allows either Canada or the U.S. the option to terminate the Treaty in 2024 with a 10 years advance notice. If neither party chooses the option, the Treaty can continue in perpetuity without any changes. The discussion of the Treaty is brief, but it is important to correctly describe what happens in 2024.

My staff is available to continue to work with you and your staff as more information becomes available and you move through the consideration process for your proposed Program. I have asked Rob Diffely at (503) 230-4213 or Cindy Custer at (360) 943-5375 to be the points of contact for further discussions on aspects of the Program of interest to BPA.

Sincerely,

Stephen R. Oliver
Vice President, Asset Management

cc:

Mr. Jim Barton, Corps of Engineers
Mr. Pat McGrane, Bureau of Reclamation
Mr. Bill Gray, Bureau of Reclamation
Mr. Dan Hallar, Washington State Department of Ecology

Comment Letter No. 8 – Department of Energy – Bonneville Power Administration

- 8-1. Because no specific storage projects have been proposed under the Management Program, it is not possible to provide detail on impacts to the power or transmission systems. This information will be provided when project level environmental reviews are conducted. See the Master Responses for a Programmatic EIS, and Future Studies for Off Channel Reservoir Proposals. The potential for impacts to power generation are acknowledged in Section 4.1.1.12.

As stated in Section 4.1.1.12, Ecology will continue to coordinate with Bonneville Power Administration and other entities to determine potential impacts associated with proposed projects and will identify appropriate mitigation for any project that could reduce power generation.

- 8-2. As noted in Section 4.1.1.12 Public Services and Utilities, Ecology and the Bureau of Reclamation will “coordinate and negotiate with the Bonneville Power Administration, Columbia River PUDs, and the Corps of Engineers to determine potential impacts and appropriate mitigation.” As noted in response to your Comment 8-1., a more thorough analysis of the impacts on power from the proposed actions will be conducted at the time a specific project arises.
- 8-3. The text of the Final EIS and Table 3-3 have been amended to reflect this comment.



State of Washington
Department of Fish and Wildlife

Mailing Address: 600 Capitol Way N. • Olympia, WA 98501-1091 • (360) 902-2200, TDD (360) 902-2207
Main Office Location: Natural Resources Building • 1111 Washington St. SE • Olympia, WA

November 20, 2006

Derek Sandison
Department of Ecology
15 West Yakima Ave., Suite 200
Yakima, Washington 98902-3452

RE: Comments on DEIS for Columbia River Basin Water Management Program

Dear Mr. Sandison,

9-1 Washington Department of Fish and Wildlife (WDFW) recognizes the importance of the Columbia River Water Management Program in improving instream conditions for fish in the Columbia Basin, and appreciates the opportunity to comment on the Ecology's Draft Programmatic EIS. Ecology's sensitivity to fish and wildlife concerns in the Columbia Basin leads us to hope that further collaboration will provide even better understanding of the costs to fish and wildlife associated with this program. WDFW participation in implementation of this Program continues to be focused on assuring the Program appropriately balances water for instream and out-of-stream uses, as called for in its enabling legislation.

It is gratifying to see that Ecology has incorporated many of WDFW's early recommendations into this document; for example, the inclusion of WDFW's habitat mitigation policy in the appendices indicates acknowledgement of that policy as an important consideration in Program implementation. Throughout this document, and through action in Program implementation, Ecology appears to be moving in the direction of mitigation sequencing (including a preference for in kind, in place, and in time compensation), which WDFW commends.

While the DEIS provides good information about the key benefits of the Program, there are some topic areas that are of particular concern to WDFW.

Prohibition of cross-WRIA transfers is problematic

9-2 WDFW is concerned that the Columbia River Water Bill's prohibition of cross-WRIA transfers will limit the benefits for instream water uses. While we can understand the concern trying to be addressed by this provision, it is also clear that more

Derek Sandison
November 20, 2006
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9-2 ecosystem benefits can be gained when conservation or acquisition of water occurs far upstream, and the new use occurs far downstream. The longer temporal and spatial distance "new" water travels through the tributaries and mainstem, the more its presence benefits instream needs. In this way, both the needs of fish and water users can be met with the same water. This is one important way this program would be able to meet the dual objectives of water for instream and out-of-stream uses.

Inadequate assessment of indirect effects of program implementation on terrestrial habitats, resident fish, and wildlife; Cumulative effects need more consideration

9-3 In general, the DEIS highlights potentially positive water-related benefits, yet gives only cursory treatment to associated negative impacts to terrestrial wildlife, resident fish, and at-risk habitats. Relatively speaking, the document provides a much better analysis of issues related to aquatic habitats and fish than it does of wildlife and terrestrial habitats. Also, there is far more detail for the direct impacts from early actions, such as water storage, management, and delivery alternatives. Unfortunately, little attempt has been made to quantify the substantial adverse impacts to wildlife and terrestrial habitats that will occur as increased water availability leads to conversion of shrub-steppe and other terrestrial habitats, reduction of open space, and increasing amounts of irrigated land and urban development. Also, wetlands impacts and mitigation are not adequately addressed. Fragmentation of shrub-steppe and other habitats is already extreme in the Columbia Basin and could be exacerbated by this program. The extent to which this program could enable additional conversion of native terrestrial habitats to cropland or wetland habitat is of special concern to WDFW. The indirect and cumulative effects of the interplay among the many independent program components, including changes in land use, changes in cropping patterns, habitat conversion, and general population growth, must be strengthened in this DEIS. Please refer to our more detailed comments, enclosed.

Fish and wildlife-related recreation is missing

9-4 Fish and wildlife-related recreation (fishing, hunting, and viewing) is an important "industry" throughout Eastern Washington, yet consideration of and impacts to these recreational activities are not adequately addressed in the DEIS.

Mitigation for program-related project impacts to fish and wildlife must be integrated into project planning

9-5 Mitigation for the program's cumulative impacts should be planned and funded as an integrated package, to include acquisition, development, restoration and operation, maintenance, and management for the life of the project. Many of the

Derek Sandison
November 20, 2006
Page 3

9-5 areas potentially inundated or impacted by this program have already been designated as mitigation for earlier storage projects, so future mitigation ratios must be increased significantly to compensate for the successive losses. Mitigation projects should address habitat fragmentation if we expect smaller areas of quality habitat to remain highly productive, and should preserve connectivity between remaining habitats. The key objectives for integrating mitigation planning into project development is to properly estimate total project costs, and to avoid having mitigation issues blindsides stakeholders and agencies as the project proceeds through the permitting process.

Further environmental review must occur for all projects funded through the program

9-6 A programmatic EIS is necessarily general in its assessment of impacts from program-initiated projects; however, it is not always clear from the document that additional, more detailed, environmental review is anticipated for all actions under the program. WDFW suggests the EIS emphasize that projects funded through the Columbia River Water Supply Development Account will be undergoing environmental (i.e. SEPA/NEPA) review on a project-by-project basis, based on individual site merits.

WDFW Preferred Alternatives

Following is a summary of WDFW's preferred alternatives for policy issues presented in the DEIS.

9-7

Policy Issue No.	Title	WDFW's Preferred Alternative
0	Selecting Storage Projects	No preference.

9-8

1	Calculating Net Water Savings from Conservation	Option 2: (incorporating scientific evidence) allows for updating the method to consider the latest information and the specific objectives of the program.
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Derek Sandison
November 20, 2006
Page 4

9-9	2	Funding Criteria for Conservation Projects	WDFW proposes a fourth option that provides for better sharing between needs, as follows: <i>"Net water savings will be managed in the Trust Water Right Program for tributary or mainstem flow enhancement in proportion to public funds expended for conservation/acquisition projects. Where private funding is also used, the proportion of net water savings set aside for flow enhancement from Program conservation and acquisition projects shall not be less than one-third. That proportion of water not held in trust for stream flow enhancement may be used to mitigate for out-of-stream uses authorized by permits that would be issued under the program."</i>
9-10	3	Defining "Acquisition" and "Transfer"	Option 1 (acquisition and transfer means any non-storage project) provides the most flexibility and potential support for the dual goals of the management program.
9-11	4	Conditioning Water Rights on Instream Flows	Option 2 (waive the instream flow rule where permits or transfers shift consumptive demand away from critical flow periods) provides more incentives, the best flexibility, and best supports the dual goals of the program.
9-12	5	Initiating Voluntary Regional Agreements	Option 1 (process VRAs as proposed). Until procedures are refined and implementation tested, Ecology should not "aggressively pursue" additional VRAs.
9-13	6	Processing Voluntary Regional Agreements	Option 1 (Hillis rule) represents the most conservative approach, ensuring consistent application of Hillis' protective measures and offering the best opportunity to improve conditions for fish and wildlife resources.
9-14	7	Defining "No Negative Impact" to Instream Flows of the Columbia and Snake Rivers	WDFW supports a hybrid of options 4C-1 and 4C-4 that excludes withdrawal above the point of water savings, yet allows opportunity for reach benefits over a longer distance downstream. In the absence of modification, Option 1 is preferred.

Derek Sandison
November 20, 2006
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9-5	8	Defining the Main Channel and One-Mile Zone	Option 1 (No backwater areas included) is preferred by WDFW. Excluding backwaters is more conservative, allows for better review of individual water management decisions, and offers the best opportunity to protect fish and wildlife resources.
9-6	9	Coordinating VRA Mitigation and Processing New Water Rights	No preference.
9-7	10	Coordinating VRA and Non-VRA Processing	WDFW prefers option 3 (grouped by WRIA) because this provides the best, most expedient opportunity to achieve instream benefits.
9-8	11	Funding Projects Associated with a VRA	No preference.
9-9	12	Inclusion of Exempt Wells in Water Use Inventory	WDFW urges Ecology to include exempt wells in the information system.

Enclosed you will find WDFW's more detailed comments. Please do not hesitate to consult us on fish and wildlife related issues as you work toward the final EIS. WDFW appreciates the opportunity to comment, and pledges our continued commitment to work collaboratively with Ecology to ensure implementation of the Columbia River Basin Water Management Program continues to benefit both instream and out-of-stream needs.

Sincerely,



Teresa Scott
Natural Resource Policy Coordinator
Columbia River Policy Group

ENCLOSURE

Washington Department of Fish and Wildlife
Draft EIS - Columbia River Water Management Program - Detailed Comments

General Areas of Concern

I. Species information and impacts missing from document

- 9-20 A. Treatment of fish and wildlife species and impacts is uneven
- The geographic scope of impacts from the Columbia River Water Management Program (CRWMP) covers a broad range of terrestrial and aquatic habitat types, yet not all associated fish and wildlife species are addressed. A brief narrative was given for each priority fish species that describes their relevance to the CRWMP. Priority wildlife species need more discussion so that their relevance to the CRWMP is made clear.
- 9-21 B. Analysis of impacts to wildlife is lacking for most Wildlife Species of Special Concern
- Wildlife issues received only superficial and sometimes misleading coverage. Most wildlife discussions appear to have been done with limited literature review, little incorporation of science, and no apparent experience with eastern Washington terrestrial habitats. Within the main body of the text, Table 3-17 (pg 3-63) lists 18 federally listed wildlife species and gives their State status. This list is incomplete and fails to recognize many of the species of concern in the program area. Most of the species in Table 3-17 will not be impacted by the CRWMP (i.e., grizzly bears, lynx, and wolves); however, many state and federal priority species that are not listed will likely be impacted. Although a WDFW-provided table was included as an appendix to the DEIS, discussion of how these species are associated with the CRWMP should be provided.
- 9-22 C. The Fish and Wildlife sections do not discuss bivalves (mussels and clams) and lamprey, which are important trophic components of the Columbia River ecosystem.
- 9-23 D. The impact or potential impact of river conditions (especially temperature) on fish migration and fish disease is not discussed.
- 9-24 E. The differentiation between fish stocks that are ocean type versus stream type (i.e. spring chinook and fall chinook) should be described.
- 9-25 F. Impacts of flow fluctuations on nesting success of waterfowl and shorebirds should be discussed.

Washington Department of Fish and Wildlife
Draft EIS - Columbia River Water Management Program - Detailed Comments
Enclosure - Page 2

II. Other topics missing from document

- A. There is inadequate description of recreational fishing, hunting, and wildlife-related viewing; discussion of impacts to, and mitigation for, these activities is missing. Fish and wildlife related recreation plays a key economic role within the Program's geographic scope. Warmwater and resident trout fisheries, hunting, and viewing could all be affected by various alternatives, not just salmon and steelhead fishing. To demonstrate what's needed, WDFW staff provides the following information relating to the Hawk Creek storage site:

Recreation - Hunting: turkey; mule deer; California quail; ring-necked pheasant; gray partridge

Recreation - Fishing: Hawk Creek and Indian Creek, and potentially Snook Canyon Creek, contain resident native species and non-native fish populations, including brook trout. Some species would likely be negatively impacted by the construction of an impoundment, while others may benefit. The streams are within the bull trout overlay, however, the only bull trout found in the system to-date was at the mouth of Hawk Creek below the natural barrier falls. [The USFWS conducted survey work in Hawk Creek in the late 1990's. Their report may provide more fish presence information.] WDFW annually stocks rainbow trout in Cottonwood Creek, a tributary to Hawk Creek. Stocking on other portions of Hawk Creek was discontinued a number of years ago.

- B. The document lacks references to artificial production ("hatchery") programs.

- C. There appears to be little discussion regarding the justification or need for increased irrigated agriculture, yet this assumption forms the foundation ("Purpose and Need") for the Program. Much of the irrigated agricultural lands within Washington are in Conservation Reserve Programs and many irrigated crops are in such oversupply that there are governmental programs to provide price support or remove lands from production. There appears to be no discussion regarding the economic effect of increased supply on value of existing production.

- D. The document is missing a discussion on impacts to NPDES operational permits for irrigation and mosquito districts. A listing of current NPDES permits is needed, along with their duration and specific provisions. Will conditional changes be needed?

- E. There is very little discussion of fish passage conditions and potential impacts,

Washington Department of Fish and Wildlife
Draft EIS - Columbia River Water Management Program - Detailed Comments
Enclosure - Page 3

- 9-30 especially if there are plans to modify existing storage or conveyance facilities. Many of these conveyance facilities are natural water bodies that require fish passage.
- 9-31 F. There is no mention of the Hanford National Refuge and Monument *Fifteen-Year Management Plan* and potential conflicts with the *Columbia River Management Act*.
- 9-32 G. There is no mention of the potential positive or negative effects of the Program on shoreline and slope stability at White Bluffs on the Hanford National Refuge and Monument and on tribal burial areas on Columbia River islands.
- 9-33 H. There are no discussions of impacts or mitigation to federal Farm Bill programs, such as CRP, CREP, and EQIP. Pgs. 2-11 discussion of NRCS should be written to encourage more and better participation on behalf of NRCS.
- 9-34 I. The document makes no reference to impacts to oak habitat and associated species. The WRIA 30 storage projects referenced in Appendix E have the potential to impact scrub oak habitat, state-threatened Western Gray Squirrels, and other PHS and sensitive species associated with this habitat type.

III: Lack of Depth of Analysis

A. Inadequate Literature Review and Analysis

- 9-35 In general, the document lacks peer review literature references, especially when there are science discussions. (Examples: pages 3-25, 3-34, 3-36, and 3-62). Review of literature and pertinent Best-Available Science, especially relative to wildlife, was not apparent. Citations in the EIS are largely from very general publications, "gray" literature, and personal communications. Existing published literature was largely ignored. A large body of technical and scientific work has been, and is being, conducted within the program area. Much of this work can be found at:

http://wdfw.wa.gov/science/science_papers.html and
http://wdfw.wa.gov/wlm/research/songbird/shrub_p.htm.

- 9-36 B. Inadequate address of shrub-steppe issues
The summary discusses the potential loss of shrub-steppe but the document

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9-6 does no further justice nor does it quantify the potential direct and indirect loss. The direct loss could come from new footprints of infrastructure, water bodies, and vegetation and habitat changes resulting from increased surface water runoff and elevated groundwater levels. The indirect loss could come from the conversion of shrub-steppe to agricultural land. This lack of information and attention suggests that shrub-steppe and its obligate species are a low priority, yet this is not the case. The document should discuss in further depth the potential impacts, and address how to mitigate for the lost habitat and its obligate species.

9-7 C. Potential Impacts to Wetlands are not quantified

The document identifies where wetlands might be located, but presents no quantified data that would address the potential magnitude of impacts.

9-8 D. Lower Crab Creek Underrepresented

The upper reaches of Crab Creek are discussed, but very little is mentioned of lower Crab Creek and the potential impacts (beneficial or harmful) to the lower reaches. Spawning and rearing fall chinook and summer steelhead have been documented in lower Crab Creek.

IV. Special Topics

9-9 A. Changes in Agriculture and "Water Conservation" Will Have Negative Impacts to Wildlife

Most of the changes described for agriculture will have detrimental impacts to wildlife. The values of agriculture to wildlife largely decrease in the progression from less intensive (dry-land wheat, grain corn, and barley) to more-intensive farming (orchard, vineyard, and potatoes). More intensive agriculture means less feed is available, more chemicals enter the environment, and there is less idled ground. Social tolerance is low regarding wildlife-related crop damage.

9-40 B. Adding More Water to an Arid Ecosystem Not Beneficial to Endemic Plants and Animals

The EIS overstates the idea that adding more water to the uplands will have positive benefits. A large part of the project area is arid shrub-steppe or desert. The CRWMP will increase the amount of water on this landscape. The endemic plants and animals adapted to this xeric environment will not benefit from more water; they will likely be harmed. Another problem is adding water

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9-40 out-of-sync with the natural hydrology of the region. Most precipitation in central Washington occurs outside of the growing season. Adding more water to a desert environment outside the normal period will not benefit locally adapted, endemic species. From experience with the Columbia Basin Irrigation Project we know that this unnatural hydrology promotes invasive-exotic vegetation, wildlife, and noxious weeds. These topics need to be addressed in the DEIS.

9-41 C. Restoration of Disturbed Arid Habitats Will Be Difficult and Costly

These arid habitats are extremely fragile. Areas with disturbed soils or vegetation are difficult to restore. Restoration of any disturbed site will require a significant amount of time and expense. Native habitats adjacent to irrigated agriculture, canals, wetlands, or reservoirs will be impacted by proximity to weed sources, water, excess nutrients, and chemical overspray.

9-42 D. Mitigation Should Include Acquisition

This EIS should identify habitat acquisition, restoration, and maintenance as likely mitigation for impacts associated with this program. Most major water storage projects in the Columbia Basin have relied on acquisition as an important part of mitigation packages for losses associated with their projects.

9-43 E. Supplemental Irrigation Infrastructure around Potholes Will Impact Wildlife

Lincoln County has a large population of migratory mule deer. Conveyance of 30,000 acre-feet of water to the Odessa area would likely impact to deer population survival, and provide further interference to migration and movements. The hundreds of miles of existing canals within the Columbia Basin Irrigation Project kill many deer per year (annual deer losses in some years are estimated at more than 200 animals). Addition of canals warrants a cumulative impact analysis, and channel configurations may need to be redesigned to prevent entrapment of deer and other wildlife.

9-44 F. Increase in Artificial Wetlands May Not Improve Conditions

There has been a tremendous increase in wetland habitats within the existing project area due to existing irrigated agriculture. While these wetlands provide some benefit, new acres of artificial wetland surrounded by invasive exotic vegetation may not improve upon current conditions. Several very large mosquito control districts cover most of the Columbia Basin. These districts aggressively spray wetlands with a variety of insecticides. Potholes Reservoir and Moses Lake have high concentrations of pesticide residues some of which are a byproduct of insecticides used for mosquito control. More artificial

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9-4 wetlands equates to more insecticides used for mosquito control. The DEIS needs to examine how an increase in use of toxic chemicals affect fish and wildlife species.

G. Impacts Relating to Smaller Storage (and other funded) Projects Must Be Addressed

Although we understand that project-specific environmental review will be necessary, we nevertheless believe that impacts that could result from projects funded through the CRWMP are not thoroughly considered in the Draft Programmatic EIS. Some specific comments regarding potential projects in Klickitat County (used as an example) are outlined below.

9-5 The potential for Klickitat County impoundments or other measures in the program to facilitate development of additional irrigated agriculture or industry in the county is not addressed in even a programmatic sense. Even smaller Klickitat County impoundments, and throughout the basin, will destroy some riparian and riverine wetland habitat critical to numerous wildlife species. These impacts to riparian habitat are difficult to mitigate effectively. Specifically, projects that have been referenced in Klickitat County would all have adverse effects on critical deer ranges and migration routes. Impacts would include direct habitat loss due to inundation and indirect losses associated with infrastructure and blocking of migration corridors. Impacts to fish and wildlife from smaller projects funded through this Program need to be addressed.

H. Cumulative Impacts Need More Analysis

9-6 As stated above, we understand that most storage projects will undergo project-specific environmental review. However, smaller habitat changes associated with conservation projects may not gain further environmental review, yet will certainly have cumulative impacts. Also, the CRWMP will facilitate development and changes in land use patterns incrementally over many years. Cumulative impacts will likely be the most significant environmental concern associated with this program, yet analysis of cumulative Program effects is lacking.

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Specific Comments by Paragraph & Page

Summary

- 9-47 S.2.2.1 - Lake Roosevelt drawdown: The nature and mechanism of the drawdown is not clearly described with the language "to divert ... acre-feet from its existing storage right for water in Lake Roosevelt."
- 9-48 S.3.1 - Columbia River Water Management Program: Benefits and impacts of providing more out-of-stream water are mentioned, but there is no mention of any benefits or impacts of flow augmentation.
- Improved water supplies may expand agricultural and municipal development. *Suggest that will replace may in this sentence.*
- 9-49 S.3.1.1 - Storage Component: Most of the bullets are harmful effects. What about beneficial effects? Identify which are harmful and which are beneficial.
- The list of potential impacts needs to more specifically recognize that habitat impacts will also occur away from the storage facility. More water in shallow aquifer associated with a new facility will increase weeds and "artificial habitats." Need to recognize that storage and water conveyance infrastructure can form barriers to migration and movement, and continue to fragment habitats.
- 9-50 S.3.1.1 - Storage Component, Fish, Wildlife & Plants: Please list the type and location of fish passage impediments. Also, the relationship between higher flows and better salmon survival is well established.
- 9-51 S.3.1.2 - Conservation Component, Fish, Wildlife and Plants: First bullet, change "increased stream flows would *might* benefit fish." Not all flow increases, may be beneficial to all fish and wildlife species.
- 9-52 S.3.1.2 - Overly positive list. Conservation in one area will increase development in another. Increased instream flows may increase movements of undesirable fish such as carp. Permanent ponds or artificial wetlands that are out-of-sync with natural hydrology may have limited value.
- 9-53 S.3.1.2 - Need to equate more water rights to more development and more habitat impacts.
- 9-54 S.3.1.3 and S.3.2.2. - List all the potential environmental consequences, not just the primary impacts.

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- 9-55 [S.3.2.1 - Lake Roosevelt Drawdown: The only consideration given to wildlife is impacts to nesting waterfowl, which seems very limited. Additional drawdown needs to be treated as a cumulative impact for Lake Roosevelt and other water storage facilities in the program areas.
- 9-56 [S.5 (Paragraph 1) - We appreciate the recognition that expansion of irrigation into shrub-steppe will be an area of controversy. We suggest that this concept be expanded to any commercial, urban, or other agricultural development.
- 9-57 [S.5 (Paragraph 2) - The recognition that acquisition for proposed storage facility will be controversial is accurate and warranted. Mitigation for habitat impacts should also include habitat protection through acquisition, which will also be controversial.

Chapter 1

- 9-58 [1.3.1 - Most of the environmental factors that affect salmonid smolt rearing and migration instream and near dams are well documented in scientific literature. To say that there is "scientific uncertainty" without referring to this is misleading.
- 9-59 [1.3.1.3 - National Research Council Report : (pg 1-6 & 7 and throughout the document). change "Natural National Research Council"
- 9-60 [1.5 - Scoping Process: (pg. 1-9, last paragraph, last sentence and pg. 1-10, 1st sentence, and others): Correct Appendix lettering to be consistent between text, the table of contents, and the appendix headings.

Chapter 2

- 9-61 [2.1 - Description of the Program: The project inventory, demand forecast, and data management systems are much more than administrative support functions. Development of these tools is critical to support decisionmaking relating to water management in the Basin.
- 9-62 [2.1.2.1 - Please be more specific on the "environmental effects" that must be evaluated.
- Re: pump exchange: Discussion of the pump exchange for the Yakima River should include a description of the potential benefits: Keeping cool upper river water in the river - replacing its withdrawal for irrigation use with warmed lower Yakima River water - can either maintain or cool the river, depending on conditions and amounts.

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- 9-63 [Re: Aquifer Storage and Recovery: Groundwater WACs apply. Permits for withdrawal are necessary.
- 9-64 [Re: Odessa Subarea Special Study: Are these acreages correct? 120? And 230?
- 9-65 [2.1.2.2 - 1st paragraph: There are trust program options, such as temporary versus permanent trusts, that should be discussed.
- 9-66 [Re: Infrastructure improvements: It is okay to line canal and ditches PROVIDED they are not natural drainages. Water conservation funding should be prioritized based on savings efficiency in tributary streams.
- 9-67 [Re: On-Farm: Urban landscape irrigation should have similar programs as "On-Farm Conservation and Irrigation Efficiency Improvements."
- 9-68 [Re: Pump Exchanges: The Edison Street pump station is not the only alternative for this pump and pipe site. It should be noted in the document that the 57 cfs from the Columbia River in July and August contradicts the Columbia River Management Act requirements and the National Research Council Report recommendations.
- 9-69 [2.2.8 (Page 2-18) - Defining "No Negative Impact" to Instream Flows of the Columbia and Snake Rivers: The definition of pool is somewhat vague. From section 6.2.7 it appears that the term pool refers to a reservoir, not a stream characteristic. To avoid confusion a different term should be used, or the term pool should be defined.
- 9-70 [2.2.9 (Pg 2-19) - The OHWM is already described in state statute. There is also a federal definition and interpretation for OHWM, as well as a WDFW definition in WAC 220-110.
- 9-71 [2.5.2.1- Crab Creek Route Alternative: There is less risk in creating entrapment of migrating deer and other mammals if canals are constructed with minimal dredging and improved water crossing structures.
- 9-72 [2.5.3.1- CSRIA VRA: In addition to the pump exchanges, off-channel reservoirs, irrigation efficiency projects, ASR projects, it is mentioned that "other measures" are also under consideration. What are "other measures"? Could land transfers to areas more efficiently irrigated with less environmental impact be considered as well as water exchanges? Please be more descriptive for the CSRIA proposal.
- 9-73 [The \$10 per acre-foot per year falls far short of the funding required to restore equivalent flow in the Columbia River at market prices. Even basic assumptions show that the State will not see our initial investments for

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9-73 mitigation expenditures repaid until decades after the new right is issued.

Chapter 3

9-74 3.1.1 - The land use description is too vague. What are the metrics for the various land uses? Please identify the historic, present, and potential shrub-steppe acres within the Project action area.

9-75 3.1.2 - It is misleading to portray all river modifications as beneficial for fish migration or as beneficial to fish and wildlife. In general, river modifications that benefit fish and wildlife originate as mitigation (e.g., fish ladders, flow augmentation) for impacts of other river "benefits."

9-76 Table 3-1 (Page 3-3): Columbia County is upstream of Bonneville Dam. The table is incorrect.

9-77 Figure 3-5 (Page 3-8): Box Canyon and Cowlitz Falls dams were omitted from the map. In addition the Spokane River dams are missing (e.g. Post Falls, Monroe Street, Nine Mile, Long Lake, Upper Falls, and Upriver, Little Falls).

9-78 3.4.1.4 - Flows continue to decline in Mill Creek in the fall months until rain events occur on a regular basis.

9-79 3.4.1.6 - Walla Walla County is not within the Columbia Basin Project area. It is across the Snake River from the project area.

9-80 3.4.1.6 - Please identify how much of this irrigated land was converted from native shrub-steppe, and how much additional shrub-steppe could potentially be lost to new irrigation.

9-81 3.4.2. - Surface Water Quality: Please provide statistics regarding the levels of nutrients and pesticides in streams as a result of land use practices related to the Columbia River Project. We suggest using an appendix for this information if it is a large database. Make a distinction between stream temperature increases attributable to storage reservoirs and to runoff from irrigated agriculture.

9-82 3.4.2.2. Please identify the BOR "right" as a conveyance easement. Also, if there is a written agreement between BOR and the state regarding exceeding pre-construction flows please reference it and include a copy within the Final EIS.

9-83 Re: Supplemental Feed Route: The recognition that both Moses Lake and Potholes Reservoirs have impaired water quality from elevated pesticide and other contaminants is important. A contributing factor to this poor water

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9-83 quality is that these water bodies are part of the largest mosquito control district in the state. The wetlands and shorelines associated with these lakes are routinely sprayed with a variety of insecticides. Any increase in wetlands or shorelines associated with the CRWMP will increase mosquito control efforts, and may further impair water quality. Much of the water eventually ends up back in the Columbia River.

9-84 Table 3-12 (Pg 3-40) "Ecology 2006" is not in the bibliography.

Section 3.7 - Fish, Wildlife, and Plants

Numerous concerns with this section of the document are represented in "General Areas of Concern," above.

9-85 3.7.1.3 - Lacks a WAC reference for PHS. Also, the document does not mention the WDFW PHS Management Recommendations. There are several that relate to the type of habitat impacts expected for this project.

Native shellfish. See comments above. The list is incomplete.

9-86 3.7.1.4 (Pg 3-55): Be consistent. Is it ephemeral or intermittent? They have a different meaning. If different reaches are functionally different, identify which reach is which.

(pg 3-56): What are blue-ribbon trout streams and why are they so productive? How will this project affect the values and functions for those streams?

9-87 3.7.2 - Please be more precise on the amount of shrub-steppe conversion: "over half" is not very precise.

9-88 3.7.2.2 - Odessa Ground Water Management Subarea section and throughout this entire section. "Much of the area"; "numerous"; "Natural spring-fed wetlands are present"...Please provide the metrics.

9-89 3.7.3.1 - What is "free water"? See 2nd paragraph.

9-90 (Pgs. 3-62 & 63, whole section) - Wildlife Habitat: This section is extremely general and is not very well researched or written. These general paragraphs do not add much information to the document. It would be appropriate for this section to focus on priority species and not be so generic. The document cites a very odd list of shrub-steppe dependant species that includes elk and bighorn sheep. This section also inappropriately depends upon "gray" literature without any apparent recognition of the wealth of peer reviewed literature available.

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- 9-91 3.7.3.2 (Pgs. 3-63, 64, 65, whole section) - Federal and State Listed Species: This section is woefully inadequate. WDFW notes that some ideas from earlier comments were inserted, but with very little synthesis and analysis. Just adding the list of >70 species as Appendix I does not help the average reader understand how each species may or may not be effected by this program. Descriptions of the species-of-conservation-concern that are unique to the program area should be provided in this section.
- 9-92 There was a better job done for fish (section 3.7.1) where there is a section for federally listed species, state listed species, and state PHS. There should be a parallel analysis and review conducted for wildlife. Each special status species (state or federal) including candidates, species of concern, or PHS species) needs to be listed and a short description of its relevance to the CRWMP provided (in the same manner as presented for fish).
- 9-93 As written, there is an incomplete table of federally listed species, state listed species are in an appendix, PHS species are not included, and the narrative is limited to a half page of generic text. There is no synthesis of information and how this program may impact these species. More details will come with project specific environmental review, but some synthesis is needed addressing the environmental concerns that need to be scoped in the programmatic EIS. This section should be the heart of section 3.7 Fish, Wildlife, and Plants.
- American Pelicans: State Endangered species.
- 9-94 3.7.3.3 (Pg. 3-65) - These very short descriptions of the various study areas for early actions studies are poorly written and overly general. The few specifics that are included mislead the reader to think that wildlife occurring in the area, and associated concerns, are limited. For example, the three sentence description of the Odessa Ground Water Management Subarea includes a statement about "13 anadromous fish species listed under ESA" and "listed terrestrial species include pygmy rabbits and bald eagles." This gives the impression that concerns about wildlife are limited to pygmy rabbits and bald eagles.
- 9-95 3.8.2.1 (Pg. 3-70 to 3-73 and elsewhere) - Value of goods and services: Fishing, hunting, watchable wildlife, and water based recreational values (monetary and social) have largely been ignored in this section and elsewhere in the document. At the same time it is a major component and goal of current Columbia Basin water management and contributes significantly to the Basin's overall economy.

Chapter 4

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- 9-96 4.0 (pg. 4-1, Paragraph 2) - While it may be true that "on-farm conservation improvements would have limited impact for short periods of time," this assertion does not take into account the cumulative impacts of all single-farm conservation improvements. This program intrinsically encourages single-farm water conservation that is intended to cumulate to a large-scale water savings. The cumulative environmental impacts of these savings need to be examined.
- 9-97 4.1.1 (Pg. 4-2, Paragraph 3) - The idea that a single large storage facility may have less environmental impacts than several smaller facilities is speculative and not supported by facts. Such statements indicate bias toward large storage.
- 9-98 4.1.1.3 (Pgs. 4-5 through 4-8) - Surface Water: There appears to be no acknowledgement that a storage facility will convert a stream to a reservoir. This is a significant change.
- 9-99 4.1.1.5 (Pg. 4-14) - Water Rights, Short Term Impacts: It is unclear how the impacts to water rights are greater for off-channel storage.
- Section 4.1.1.6 - Storage Component - Fish, Wildlife, and Plants
- 9-100 (Pg. 4-15) - The impacts of filling the reservoir are not identified.
- 9-101 (Pg. 4-15) - Short-term Impacts, Fish, 4th bullet: Change to read "Altering the quantity (instream flow levels), flow rate, and quality"
- 9-102 (Pg. 4-16, Paragraph 1) - Short-term impacts to vegetation and habitat may be more significant than portrayed. Disturbance to fragile shrub-steppe may take a lifetime to recover. The idea that impacts would be greatest only in "undisturbed shrub-steppe habitats" is too limiting. Much of the remaining fragmented shrub-steppe has been disturbed in some way. Fire is a common and natural process in shrub-steppe - is habitat that has been disturbed by fire of lower priority? This paragraph states that grazed shrub-steppe has reduced value. Most existing shrub-steppe is grazed. While impacts do occur on poorly managed range, impacts on a well-managed range may be minor or insignificant. Disturbance, whether natural or artificial, is a constant occurrence in shrub-steppe, and recovery from disturbance is a long and slow process.
- 9-103 (Pg. 4-16, Paragraph 4) - Implying that the "addition of water to arid areas may increase plant diversity through alteration of vegetation communities" to balance loss of shrub-steppe is not supported by fact. From experience in the Columbia Basin, much of the vegetation associated with the artificial hydrology is exotic and invasive (Eurasian milfoil, Russian olive, Asian elm, purple loosestrife, phragmites, salt cedar, reed canary grass, yellow iris, and

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- 9-103 many more). Often there are nearly monotypic stands of this undesirable vegetation, having very little wildlife value.
- 9-104 (Pg. 4-17, Paragraph 2, 3) - Need to recognize that wetland dependant gnats are responsible for transmitting Epizootic Hemorrhagic Disease (EHD) disease to white-tailed deer and may limit populations in certain areas; they are not Columbia white-tailed deer, which only occur further down the Columbia River. The statement that no pygmy rabbits occur in the wild is speculative. The current wording implies bias against shrub-steppe protection.
- 9-105 (Pgs. 4-17 and 4-18) - Mitigation: For wildlife, mitigation needs to include habitat acquisition, restoration, and maintenance. For example, with respect to the Hawk Creek site, the proposal to inundate this habitat would represent the largest conversion of the existing habitat since the conversion to agriculture. The comparison must be made between what is left and what will be lost if this reservoir is constructed. The public already has complaints about mule deer damage at Seven Bays, just north of the Hawk Creek drainage. Flooding of such a vast area of habitat would inevitably lead to more wildlife conflicts. The current northernmost location of sharp-tailed grouse would be impacted by the project: Areas of excellent shrub-steppe habitat have been identified as future areas for re-introduction of this State Threatened species. These areas are now within the identified inundation zone, eliminating habitats necessary for implementation of the recovery strategy.
- 9-106 (Pg. 4-18, Paragraph 2) - Again, mitigation for terrestrial impacts needs to include habitat acquisition, habitat restoration, and habitat maintenance. Most major water storage projects have acquired and restored habitats to mitigate for losses. Long-term O&M funding for mitigation properties also needs to be recognized as a "cost of doing business". Omit construction of wildlife structures and nest boxes as a mitigation option - they are recognized as having extremely limited value.
- 9-107 4.1.1.7 - Socioeconomics - (pg. 4-31) Table 4.2 - Fish Element: Mitigating for fish passage (upstream and downstream) is a major concern for dams, especially for those on-channel. Under new large storage, new small storage, and modifications to existing storage, please include the need for fish passage.
- 9-108 (Pgs. 4-18 & 19) - Need to recognize the current value of ecotourism to the project area. This is an important and growing socioeconomic parameter in the program area (e.g., Coulee Corridor, Othello Sandhill Crane Festival, Coulee City Bald Eagle Festival, Audubon birding loop, traditional hunting and fishing recreation).

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- 9-109 4.1.1.8 (Pg. 4-22) - Land and Shoreline Use: This whole section discusses the changes in the landscape that this program will produce. Any or all of these changes (list on 4-22 e.g., conversion of non-irrigated lands to agriculture) will have adverse environmental impacts. These socioeconomic changes are acknowledged here but are not adequately discussed in the sections dealing with plants and wildlife. These socioeconomic changes will likely drive the most significant terrestrial impacts. More study of potential impacts associated with the changes indicated in the list on pg. 4-22 is necessary.
- 9-110 4.1.2.6 - Conservation Component - Fish, Wildlife, and Plants - (Pg. 4-39, Paragraph 3) - Lining canals will create impassible barriers for deer and other wildlife unless mitigation can be engineered. These will cause direct mortality from drowning. Need to recognize the cumulative effects of these and many other types of water conservation projects.
- 9-111 (Pg. 4-39, Paragraph 5) - Increased and dependable instream flows may be good for some species, but one cannot make the leap to the conclusion that permanent and persistent wetlands are more beneficial than temporary or intermittent wetlands. We have no shortage of artificial permanent wetland in the Columbia Basin. Wetlands that occasionally dry up are more productive.
- 9-112 (Pg. 4-40, Paragraph 1) - Dewatered wetland will convert to dry land vegetation, but noxious weeds will initially invade; active management will be necessary to restore permanent and desirable vegetation. Weeds will also be a problem within intensively farmed lands.
- 9-113 4.1.2.13 (Pg. 4-44) - Comparison of Impacts for General Types of Storage Projects, Heading and 1st sentence: Is this a typo? Change "Storage projects" to "Conservation projects".
- 9-114 Section 4.1.3 - VRA Component - (Pg. 4-48, 1st para, sentence 2) - Add to end of sentence to read, "The primary impacts that would be associated with VRAs would be to water rights *and to stream flows outside mandated no-net-loss months.*"
- 9-115 (Pg. 4-49) - Voluntary Regional Agreement Component: As elsewhere throughout the document (page 5-19 several times and in the references), the National Research Council is incorrectly referred to as the "National Resource Council" or its variant, "Natural Research Council."
- 9-116 (Pg. 4-50) - Cumulative Impacts: Incorrectly implies that cumulative impacts were included in previous sections. Not true for wildlife. This section only barely mentions impacts to wildlife.

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Chapter 5

Section 5.1 - Lake Roosevelt Drawdown

- 9-117 [5.1.1.3 (Pg. 5-4) - Surface Water, Long Term Impacts, Heading for second paragraph: Change "Water Quantity" to "Water Quality"
- 9-118 [5.1.1.6 (Pg. 5-9) - Fish, Wildlife, and Plants: Mitigation: Fish: Last paragraph: Change last sentence and add another: "Holding water in the Trust Program and discharging only during drought conditions might result in have a greater influence on benefit to downstream flow and habitat conditions and to those in the lake than an annual release strategy. Other options for use of this water to better leverage benefits to stream flows and fish species (e.g. enhancement of tributary flows and source exchange, for instance) will be explored with resource agencies."
- 9-119 [(Pgs. 5-8 and 5-9) - Fish, Wildlife, and Plants: Again, the National Research Council is incorrectly referred to as the National Resources Council.
- 9-120 [(Pg. 5-8, Paragraph 1) There does not appear to be much analysis on the effect of additional drawdown of Lake Roosevelt. The document seems to indicate that impacts already occur, so a little more impact is not significant. A cumulative impacts analysis should be done. Not sure if it is valid to indicate that more mud flats may be beneficial. Littoral zone subject to this increment of drawdown is likely not a limiting habitat for managed fish in Lake Roosevelt.
- What is the range or total area of horizontal shoreline impacts?
- 9-121 [5.1.2 (Pg. 5-12, Paragraph 5) - Please tell us why no additional studies are planned for impacts to fish and wildlife related to new infrastructure that will supply 30,000 acre-feet of water to the Odessa Subarea.
- 9-122 [5.1.2.6. (Pg. 5-19) - Impacts in Receiving Areas - Fish, Wildlife, and Plants: Long Term Impacts, Fish, 1st paragraph, last sentence: Change and add a sentence. "This relatively insignificant magnitude of flow increase makes the mainstem augmentation from Lake Roosevelt inconsequential with respect to biological resources. Other options for use of this water to better leverage benefits to stream flows and fish species (e.g., enhancement of tributary flows through source exchange, for instance) will also be explored with resource agencies."
- 9-123 [5.1.2.6 (Pgs. 5-19-20) This EIS is inadequate in presenting the potential impacts to wildlife associated with the infrastructure needed to move 30,000 acre-feet of water to this area. The impacts associated with this will be potentially huge if the predicted socioeconomic development is accurate.

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- 9-12 [5.1.2.8 Land and Shoreline Use. There is no mention of the potential loss of shrub-steppe from conversion to agricultural practices. Also, Counties and Cities are not fully planned under GMA ordinances. Their critical habitat ordinances are updated every year (maybe every two?), as a result of the changing natural and anthropogenic environments. If growth is a result of more water, those impacts from that growth should be addressed in this document.
- 9-12 [Section 5.2 - Supplemental Feed Route
- 9-12 [5.2.1.4 (Pg. 5-29) - "Crab Creek is not currently a perennial waterway." Please specify which reach is not perennial? The lower reaches flow year round and support valuable fish resources.
- 9-12 [5.2.1.5 - There is a discussion regarding federal easements rights. It should be made clear that these are only easements, and that the state retains jurisdiction on projects that may affect the bed or flow of the respective stream or waterbody, regardless of the federal easement. In most cases, the federal government does not own the land. Modifications for conveyance purposes do not imply federal jurisdiction or ownership over the respective water body. The easement agreements must be scrutinized and crafted carefully to ensure the state retains jurisdiction. Even if the state sells the land to the federal government, it still retains regulatory jurisdiction over projects that affect the bed or flow of the respective waterbody.
- 9-12 [There is very little meaningful discussion on the potential impacts of cool water to small drainages. This includes the potential for cool groundwater influence.
- 9-12 [5.3 - Voluntary Regional Agreements - (Pg. 5-40): VRAs will result in more water rights being granted. The locations of water use need to be recognized and impacts at those locations evaluated.
- 9-12 [5.5 - Cumulative Impacts: Esquatzel Creek is a natural drainage system that has been modified over decades. Anecdotal information suggests that salmon formerly used this drainage. It currently supports only resident fish stocks because of numerous modifications. An increase in groundwater into the Odessa Subarea is very likely to influence flow in Esquatzel Creek. BOR considers it a wasteway, but WDFW manages the system as a stream. Impacts to this habitat should be addressed.

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Chapter 6

9-130 [This section is poorly formatted. Paragraph numbers are confusing, policy alternatives are not numbered sequentially, and options under each topic are not numbered or otherwise labeled for reference.

Policy Alternative: Selecting Storage Projects

9-131 [No preference.

Policy Alternative: Calculating Net Water Savings from Conservation

9-132 [The second alternative ("Develop and use a methodology incorporating scientific evidence on the benefits of the net water savings to instream flows") might be no different from the first alternative ("Use Guidance-1210 methodology"), but the former allows for updating the method to consider the latest information and the specific objectives of the program.

Policy Alternative: Funding Criteria for Conservation Projects

9-133 [In general, WDFW supports projects that place a priority on water conservation strategies in tributaries because these project provide greater fish benefits. Under this Program, such projects can also improve Columbia River mainstem flows. WDFW also values storage and water conservation strategies that optimize instream flow fish benefits while minimizing impacts on terrestrial species.

9-134 [With respect to this policy alternative, the third alternative ("Funding projects to obtain one-third of the benefit to instream purposes and two-thirds to benefit out-of-stream water allocation") may be the most socially and politically viable of the three alternatives. The second alternative ("Funding projects to benefit only instream flows and water quality") is most consistent with WDFW concerns.

9-135 [However, WDFW recommends that a portion of any/all conserved water should be set aside for stream flow enhancement. Conservation and set-asides are among the limited number of tools available for stream flow enhancement, especially where fish flow deficits from prior out-of-stream allocation already exist. Conserved water should be available for either tributary or mainstem flow enhancement, whichever provides the best fish flow benefit. We acknowledge that private incentives for conservation are also important to the success of this program. To that end, we suggest a compromise fourth policy alternative that provides opportunity for sharing between needs, as follows:

"Net water savings will be managed in the Trust Water Right Program for tributary or mainstem flow enhancement in proportion to public funds expended for conservation/acquisition projects. Where private funding is also

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9-135 [used, the proportion of net water savings set aside for flow enhancement from Program conservation and acquisition projects shall not be less than one-third. That proportion of water not held in trust for stream flow enhancement may be used to mitigate for out-of-stream uses authorized by permits that would be issued under the program."

Policy Alternative: Defining "Acquisition" and "Transfer"

9-136 [The first alternative (acquisition and transfer means any non-storage project) makes the most sense and provides the most flexibility and potential support for the dual goals of the management program. WDFW currently uses the non-storage project approach in flow restoration and it has resulted in significant fish benefits.

Policy Alternative: Conditioning Water Rights on Instream Flows

9-137 [The second option, in which instream flow rule would be waived when/where permits or transfers shift consumptive demand away from critical flow periods, provides more incentives for such transfers, the best flexibility, and thus the opportunity to benefit both fish and people needs. The *overriding consideration of the public interest* (OCPI) would be invoked under this option; doing so has risks and should be used sparingly. A formal adoption of criteria for reliance on OCPI, developed through public rulemaking, would reduce the risk of overuse of OCPI; current safeguards and statutory requirements would not be affected.

Policy Alternative: Initiating Voluntary Regional Agreements

9-138 [VRAs are a new concept with no history of performance and minimal apparent advantages (and some risk, especially during periods outside of "no-flow-impact" months) to stream flows and fish resources. Until implementation procedures have been refined, and the currently-proposed VRA has been tested by time and experience, Ecology should not direct its limited resources toward "aggressively pursuing" additional VRAs.

Policy Alternative: Processing Voluntary Regional Agreements

9-139 [WDFW recommends that Ecology continue to process new water rights applications according to the "Hillis Rule." Under this option, if a VRA meets the current Hillis criteria, then it could be processed ahead of applications that do not meet Hillis criteria. This represents the most conservative approach, ensuring consistent application of Hillis' protective measures and offering the best opportunity to improve conditions for fish and wildlife resources.

Policy Alternative: Defining "No Negative Impact" to Instream Flows of the Columbia and Snake Rivers

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9-140 WDFW recommends a hybrid of options 4C-1 and 4C-4 that excludes withdrawal above the point of water savings to provide protection against reach impacts above that point.

9-141 The first alternative, same pool and downstream (4C-1), is the most consistent with WDFW's current preferred practice for flow protection and tributary enhancement. It provides for an acceptable protection compromise against reach impacts, allows important opportunity for tributary enhancement benefits, and provides opportunity for reach benefits over a longer distance than the other options do. However, excluding withdrawal upstream from the point of savings (as represented in option 4C-4) provides even better fish flow benefits. A hybrid provides the best protection for fish.

Policy Alternative: Defining the Main Channel and One-Mile Zone

9-142 Including or excluding backwaters in the definition ultimately affects what water uses could be included in the streamlined water rights processing of the Voluntary Regional Agreements (VRAs). Backwater areas, and tributary mouths associated with backwater areas, provide important and often unique fish and aquatic wildlife habitat deserving of continued consideration and protection. These backwaters also have a very strong hydraulic and ecological connection with the mainstem. While there are benefits and concerns for each alternative, the first alternative (No backwater areas included) is preferred by WDFW. Excluding backwaters is more conservative, allows for better review of individual water management decisions, and offers the best opportunity to protect fish and wildlife resources. This alternative would reduce the unintended potential for impacts to tributaries.

That said, there is no reason why Ecology should not include backwater areas in their inventory of existing water rights regardless of the option selected. Contrary to the statement in the last paragraph of this section, the need for this inventory to support of the overall Columbia River Water Management Program would still exist.

Policy Alternative: Coordinating VRA Mitigation and Processing New Water Rights

9-143 Although Ecology's choice of preferred alternative will profoundly influence the success of VRA implementation, there is no clear reason for WDFW to prefer one option over the other.

Policy Alternative: Coordinating VRA and Non-VRA Processing

9-144 WDFW prefers the third option, in which Ecology would group all applicants in the Columbia River one-mile corridor with tributary WRIA permitting. This not only helps Ecology find mitigation water, it also makes the most sense in terms of

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9-144 hydraulic and ecological connection with the mainstem, and enhances Ecology's ability to target water conservation and acquisition in tributaries and reaches where fish needs are more critical.

Policy Alternative: Funding Projects Associated with a VRA

9-145 Although Ecology's choice of preferred alternative will profoundly influence the success of VRA implementation, there is no clear reason for WDFW to prefer one option over the other two. WDFW's concern is for the outcome: that mitigation is achieved. How it is funded, at least among the general options proposed in the DEIS, is not a direct concern to WDFW.

Policy Alternative: Inclusion of Exempt Wells in Water Use Inventory

9-146 WDFW strongly recommends the second alternative, to include exempt wells inventory in the information system. We believe that this is consistent with both the intent and spirit of the legislation and that including exempt wells in the information system is necessary in order to provide a clear and accurate picture of water supply, demand, and use. Not including exempt wells in the inventory will result in an incomplete accounting of water use and restrict the effectiveness of the overall water management program in meeting its goals.

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- 9-1. Comment noted.
- 9-2. Comment noted. Transferring water across WRIA boundaries could be permitted with legislative approval. Ecology could seek that approval if warranted by a specific project.
- 9-3. Ecology acknowledges and appreciates your concern regarding potential impacts to shrub-steppe habitat. In response to your comments and others, additional information on shrub-steppe habitat, wildlife, terrestrial habitat, and wetlands has been added to the Final EIS. Additional discussion of potential impacts has been added. The EIS acknowledges that shrub-steppe habitat has been fragmented through past development and that the fragmentation could be exacerbated by additional development in the Columbia River Basin. See also the responses to Comments 1-84 and 1-85.

As noted in responses to your more detailed comments, below, it is not possible to quantify potential impacts to wildlife and terrestrial habitat in a Programmatic EIS because project details are not known. Instead a range of possible impacts is presented. Impacts will be quantified in future project level review of specific projects. It is possible to provide more detailed discussion of impacts for the early actions because more detail is known about the projects.

- 9-4. Additional information on wildlife-related recreation has been added to the Final EIS. See the response to your Comment 9-26.
- 9-5. It is acknowledged that mitigation for the program's cumulative impacts should be identified as early as possible and incorporated into the overall Management Program. Such efforts have begun between Ecology and WDFW, and will continue as program implementation proceeds. This programmatic EIS evaluates the range of impacts that could occur from projects that will be proposed under the Management Program (see the Master Response regarding a Programmatic EIS). As a Programmatic EIS, impacts, and accompanying mitigation measures, are broad and in some cases general in nature. When project level environmental analysis is conducted on specific projects (see the Master Response regarding Future Studies for Off Channel Reservoir Proposals), detailed impacts will be evaluated and specific mitigation measures will be developed. At that time, Ecology will coordinate with WDFW to determine what types of mitigation measures are most appropriate.
- 9-6. Additional information has been provided in Section S.4 regarding the future environmental review that will take place for projects proposed under the Management Program.
- 9-7. Comment noted.
- 9-8. Your preferences regarding the Policy Alternatives are noted. See the revised Chapter 6 in the Final EIS for Ecology's revised Policy Alternatives.

Ecology has elected to propose a rule that would adopt its current GUID-1210

methodology for consumptive use and net water savings calculations. The amount of water that would be available for mitigation of mainstem uses less than or equal to the amount accepted into the Trust Water Rights Program for the secondary reach (below all return flows). See the revised Section 6.2.2 in the Final EIS.

- 9-9. Ecology has worked with the Columbia River Policy Advisory Group and others and will develop funding criteria for screening and ranking conservation and other water supply projects. Ecology proposes the one-third share for instream purposes initially to ensure that measuring and accountability systems are fully implemented and uncertainties associated with management of the trust water rights and new permits are defined and addressed. This approach provides assurance that new permits would not reduce mainstem Columbia River flows. The magnitude of the cost-share will be determined through rulemaking. A significant fraction of the conservation and non-storage projects are expected to originate within tributary basins where instream flow benefits will be the greatest. See the revised Section 6.1.4 in the Final EIS.
- 9-10. Ecology has defined acquisition to include six methods to achieve net water savings. These methods are described in the revised Section 6.2.2 in the Final EIS.
- 9-11. Ecology has elected to continue the application of WAC 173-563 to instream flows. Waiver of the flows would occur only as described in RCW 90.54.020(3)(a) and WAC 173-563-080. Ecology has decided to continue making OCPI determinations on a case-by-case basis.
- 9-12. Ecology has decided it will primarily pursue VRAs when it is approached by applicants. Ecology would more actively organize or match up water users when it benefits the program and is in the public interest.
- 9-13. Ecology has elected to continue processing applications in accordance with the existing WAC 173-152. Applications would be taken “out of line” only when they meet the criteria for expedited process.
- 9-14. Ecology has selected the “Same pool and downstream” alternative. See the revised Section 6.1.9 in the Final EIS.
- 9-15. Ecology has elected to interpret the main channel and one-mile zones described in RCW 90.90 literally. This would not include some backwater areas within tributary rivers. Ecology has delineated the boundary of the one-mile zone based on ordinary high water levels associated with the existing river channel.
- 9-16. Ecology plans to aggressively pursue funding of water supply projects to make mitigation water available for such permits. However, adequate mitigation water may not be available for new water rights associated with a VRA. Ecology may request permission from the applicant to be skipped over if the applicant has not provided enough information on the application.

If state-funded mitigation is unavailable and those applicants earlier in line who require mitigation cannot provide their own, Ecology would allow those earlier in line to

voluntarily step aside for up to two years. If adequate mitigation were not provided within the two-year period, the application would be denied to the extent that mitigation was inadequate. If the earlier applicant declined to step aside, Ecology would process the application and would deny the application if it failed the four-part test under RCW 90.03.290.

- 9-17. See the revised Section 6.2.11 in the Final EIS. Ecology elected to organize applications within the one-mile zone by WRIA. However, when the source of water for permits is a mainstem source such as modification of an upstream storage facility, rather than an acquisition or other project in a tributary stream, Ecology would process applications within the one-mile corridor in priority order.
- 9-18. Ecology has selected the first alternative, which does not distinguish whether the acquisition or conservation project is associated with a VRA. Projects that benefit the Columbia River would be screened and ranked by a Technical Advisory Group (TAG) using criteria to be established by departmental policy or rule.
- 9-19. Ecology has elected to include exempt uses in its information system. This inventory will be phased in and will first include the information available in electronic formats.
- 9-20. The FEIS text has been revised to include additional information regarding priority wildlife species, particularly Sections 3.7.2 and 3.7.3 describing the affected environment and 4.1.1.6, 4.1.2.6, 4.1.3.6 describing the impacts, to expand the discussion of terrestrial wildlife species and impacts. A section specific to priority species has been added to Section 3.7.3 and more detailed descriptions of key species have been included. The Final EIS text includes information from the CCP/EIS for the Hanford Reach, WDFW's Comprehensive Wildlife Conservation Strategy (CWCS) and other additional and relevant documents.
- 9-21. The Final EIS text includes an expanded discussion of potential impacts to wildlife. Refer to responses to Comments 1-84 and 9-20. Table 3-17 provides a comprehensive list of the listed species potentially present in all of the Management Program project area with no emphasis on which species could be impacted (please see Master Response for a Programmatic EIS). Species that will be impacted are discussed in Chapter 4. In response to your comment, federal species of concern have been moved from the appendix into the table to be included in the main body of Section 3.7.
- 9-22. Information on bivalves and lamprey are included in the Final EIS.
- 9-23. Temperature effects on fish migration and fish disease have been included in the Final EIS.
- 9-24. Information on stock differentiation has been added to the Final EIS.
- 9-25. As stated in Section 4.1.1.6, "Increasing the storage of existing facilities may result in changes in vegetation communities and fluctuating water levels that expose less or more rock, vegetation, mudflat, etc. depending on the amount of water released. Long-term rapid fluctuations in water surface levels at facilities and downstream channels could

have impacts on near bank and over bank plants and wildlife. Impacts could include loss of plants or nesting habitat for waterfowl and shorebird species.” Additional text has been added to Section 4.1.1.6 clarify that impacts are not limited to breeding birds, but can occur at other times of the year.

- 9-26. The Final EIS text has been revised to expand the discussion of fish and wildlife related recreation. It is acknowledged that these are important activities throughout the Management Program area.
- 9-27. A general discussion of potential impacts to hatchery programs has been added to Section 4.1.1.6 of the Final EIS. Impacts to hatchery programs will be assessed during project specific environmental review.
- 9-28. The legislature determined that the purpose of the Management Program is to provide improved water supplies for community development and instream flows for fish. The Management Program is intended to provide more secure water rights for existing water uses. Some expansion of agriculture may also occur under the Management Program. An expanded discussion of the economic impacts of increased water supplies is included in the Socioeconomic sections—Sections 4.1.1.7 and 4.2.1.7.
- 9-29. It is not possible to address the need for conditional changes to the NPDES general permits for aquatic mosquito control and irrigation system aquatic weed control at this time, because the changes to irrigation districts are not known. The need for changes to these permits will be evaluated during project specific environmental review of projects. NPDES permits are identified as a type of permit that could be required for components of the Management Program in the Fact Sheet of the Final EIS.
- 9-30. Fish passage conditions are discussed generally in the EIS text, due to the programmatic nature of the evaluation. It is acknowledged that some of the conveyance facilities discussed in the document could provide fish passage. The specific fish passage considerations will be incorporated into subsequent project level evaluations as projects are identified.
- 9-31. The US Fish & Wildlife Service released the *Draft Hanford Reach National Monument Comprehensive Conservation Plan and Environmental Impact Statement (CCP/EIS)* for public comment on December 6, 2006. The CCP/EIS is the first step in planning for the Monument and presents 6 alternatives for its future management. USFWS is holding 4 public meetings on the CCP/EIS in late January and early February 2007, and final comments on the document are due February 23, 2007. The CCP/EIS can be accessed at: <http://www.fws.gov/hanfordreach/documents/draftccp/draft-ccp.pdf>.

Ecology will consider the Hanford Management Plan in future environmental review of projects proposed under the Management Program.

- 9-32. The potential to impact a variety of cultural resources, including burials, is discussed in Section 4.1.1.9.

- 9-33. The Final EIS text has been revised to include a brief discussion of these programs. Ecology will continue to work closely with local conservation groups and the Natural Resource Conservation Service (NRCS) as part of implementing the Management Program. The Conservation Reserve Program is described in Section 3.7.2. Text has been added to Section 4.1.1.6 to highlight coordination with NRCS.
- 9-34. Additional information has been added to Section 3.7.2 regarding the presence of oak habitat and western gray squirrels and to Section 4.1.1.6. The projects recommended for WRIA 30 would undergo project level environmental review when proposed. See the revised Section S.4 regarding future environmental review.
- 9-35. Comment noted. The analysis of existing conditions included many of the references on the web pages listed in your comment and used pertinent best available science. The discussion of existing conditions was developed to the extent that it would be useful in the document on a programmatic level. In response to your comment, additional literature and citations have been incorporated into the Final EIS.
- 9-36. Please refer to the responses to Comments 1-84 and 1-85, the Master Response for a Programmatic EIS and Section S.4 regarding project-specific review. It is acknowledged that implementation of the Management Program could result in direct or indirect habitat losses. It is also acknowledged that shrub-steppe habitat is unique and important to wildlife throughout the region. Ecology will continue to coordinate with WDFW and other wildlife managers to ensure that habitat protection is an important consideration when evaluating potential specific projects.
- 9-37. It is difficult to quantify potential impacts to wetlands prior to identification of specific projects. It is acknowledged, however, that such impacts are a possibility. All project level evaluations will include a discussion of potential impacts to sensitive resources, including wetlands, and will discuss all applicable regulator requirements associated with impacts to these resources.
- 9-38. Impacts to Upper Crab Creek are discussed in connection with the Supplemental Feed Route. That project is not expected to impact Lower Crab Creek. The Lower Crab Creek site is undergoing additional feasibility and environmental review as described in the Master Response regarding Future Studies for Off-Channel Reservoir Proposals.
- 9-39. The Final EIS text has been revised to acknowledge potential negative impacts to wildlife associated with changes in agriculture. Additional project specific impacts will be identified at the time that specific projects are identified.
- 9-40. Comment noted. The intent of the statement regarding additional water to uplands is to acknowledge that vegetation communities in the project area have the potential to change due to proposed elements of the Management Plan; in some cases this will not be a positive effect. It is understood that much of the area is arid shrub-steppe and adding water to these communities would result in a change in the species composition and diversity. In response to your comments, text in Section 4.1.1.6 has been revised to discuss the potential increase in invasive vegetation, wildlife, and noxious weeds due to the altered hydrology. The cumulative impact discussions have been revised to highlight

these concerns.

- 9-41. Comment noted. As stated in Section 3.7.2, remaining shrub-steppe habitats are in need of protection and difficult to restore. Section 3.7.3.1 notes the chemical exposure to wildlife associated with irrigated agriculture.
- 9-42. Habitat acquisition has been added as a potential mitigation measure in Section 4.1.1.6 and in Table 4-2. Ecology understands and anticipates that habitat acquisition will be a part of future storage projects. This has been clarified in the Final EIS.
- 9-43. Comment noted. As stated in Section 5.1.2.6, long-term impacts to mule deer may be increased from current levels if infrastructure such as canals were built to supply water to the Odessa Subarea. This impact, a cumulative impact analysis, and proposed mitigation measures will be analyzed in detail in the NEPA EIS prepared by Reclamation (see Section 2.1.2.1).
- 9-44. Comment noted. The Final EIS text has been revised to reflect this risk. Impacts to wildlife from toxic chemicals would be regulated by existing water quality regulations (i.e., Clean Water Act, Model Toxics Control Act, etc.). Potential impacts will be evaluated during project specific review. Ecology will coordinate with the Mosquito Control Districts to continue to address this issue.
- 9-45. Klickitat County is identified as one of the counties included in the Management Program (Section 3.1) and the discussion of project impacts in the EIS includes Klickitat County. Storage projects that have been proposed for the Klickitat Basin (WRIA 30) as part of the Watershed Planning process are presented in Appendix E of the EIS. It is acknowledged that storage projects could negatively affect riparian and riverine wetland habitat, which can be difficult to effectively mitigate. The Final EIS text has been revised to discuss potential cumulative impacts associated with storage projects. The EIS includes a programmatic evaluation of potential impacts of both large and small storage projects (Chapter 4). As noted in your comment, additional project level review will be conducted for any specific projects proposed in Klickitat County.
- 9-46. Cumulative impacts are described in Sections 4.3 and 5.5. Additional information has been added to these sections for the Final EIS.
- 9-47. Section S.2.2.1 is a summary section. Additional information on the Lake Roosevelt drawdowns is provided in Section 2.5.1.
- 9-48. It is not a forgone conclusion that the implementation of the Management Program will expand agriculture and municipal development. Many of the Management Program components are intended to sustain existing uses and/or protect instream uses.
- 9-49. Section S.3.1.1 is a summary section. Additional information on project impacts is provided in Chapters 4 and 5.
- 9-50. Section S.3.1.1 is a summary section. Additional information on project impacts is provided in Chapters 4 and 5. It is not possible to list the type and location of fish

passage impediments at this time because of the programmatic nature of the Management Program.

- 9-51. The requested change has been made.
- 9-52. Section S.3.1.2 is a summary section. A bullet was added to note impacts of potential impacts to wildlife of expanded irrigation. Additional information on impacts is included in Section 4.1.2.6.
- 9-53. Section 3.1.2 is a summary section. Additional information of conservation projects is provided in Section 4.1.2, including impacts to habitat.
- 9-54. The purpose of a summary section is to summarize the major impacts. As stated in the document, additional impacts are described in Chapters 4 and 5.
- 9-55. Additional impacts to wildlife are described in Section 5.1.2.6 and will be evaluated in more detail in the Supplemental EIS Ecology will prepare for the Lake Roosevelt drawdown.
- 9-56. Other types of development have been added to the paragraph.
- 9-57. Comment noted. See the response to your Comment 9-42.
- 9-58. The statement in Section 1.3.1 regarding uncertainty is a summary of the conclusions from the National Research Council report. See the response to Comment 5-5 regarding stream flows and fish.
- 9-59. This has been corrected throughout the document.
- 9-60. The appendix number in Section 1.5 has been corrected to Appendix C and other appendix numbers have been checked throughout the document.
- 9-61. Comment noted. These components are important to the implementation of the Management Program, but they do not require analysis under SEPA.
- 9-62. Information on improved streamflows and water quality has been added to the summary description. Additional information on the benefits and impacts of the proposed project is being evaluated by Reclamation in a separate study.
- 9-63. The Aquifer Storage and Recovery section is a brief description of a type of project that could be undertaken as part of the Management Program. Specific permits needed would be evaluated during project level environmental review.
- 9-64. The acreage has been corrected.

- 9-65. Comment noted. Ecology will evaluate a range of options for trust programs, as discussed in Appendix D.
- 9-66. Comment noted.
- 9-67. Conservation programs for urban landscape irrigation would be considered under municipal conservation programs.
- 9-68. Comment noted. The Kennewick Irrigation District's proposal for a pump exchange involves use of the Edison Street facility. Reclamation has evaluated another potential location for a pumping facility upstream of Edison Street. The 57 cfs deficit in the Columbia River associated with the proposed project, is a preliminary planning number. It will be recalculated after the irrigation district's existing water rights are recalibrated and opportunities for mitigation have been more fully explored. It is likely that the deficit will be greatly minimized or eliminated in the final proposal.
- 9-69. A definition of pool has been provided in Section 6.1.1.
- 9-70. The ordinary high water mark definition under consideration here would not change the accepted definition of ordinary high water mark. Ecology is considering how far to extend the OHWM relative to the main channel of the Columbia River; whether to extend the OHWM to backwater areas or just to the main channel of the river.
- 9-71. Comment noted.
- 9-72. Details of the CSRIA VRA will be provided in the Implementation Plan that Ecology will develop. The Implementation Plan will be subject to SEPA review.
- 9-73. See the Response to Comment 5-14.
- 9-74. Section 3.1 is an introductory section. Land use is discussed in more detail in Section 3.9 and historic and present shrub steppe habitat is discussed in Section 3.7.
- 9-75. Fish and wildlife habitat was removed from this list.
- 9-76. Table 3-1 has been corrected.
- 9-77. Figure 3-5 was provided by the Bonneville Power Administration and shows major dams on the Columbia system. It is not intended to show all dams.
- 9-78. Section 3.4.1.4 was revised to incorporate the information provided in the comment about the end of the flow decline in Mill Creek.
- 9-79. Blocks 3 and 4 of the Columbia Basin Project are located in Walla Walla County. Their water supply is pumped from the McNary Pool.

- 9-80. No existing information exists on the amount of shrub steppe habitat that was converted to irrigated agriculture by the Columbia Basin Project. However, in comparing the maps of historical and existing shrub steppe habitat (Figures 3-12 and 3-13), it would appear that most of the 671,000 acres irrigated by Phase 1 of the Columbia Basin Project were shrub steppe habitat.
- 9-81. The USGS has studied the occurrence, distribution, and transport of pesticides in agricultural irrigation return flow from four drainage basins in the Columbia Basin Project (Wagner et al. 2006). The study described the land use within each of the four drainage basins and provides a baseline indication of the concentration of pesticides and nutrients in the surface water due to land use practices in the Columbia Basin Project. This information has been summarized in Section 3.4.2; however, statistical correlation between land use and chemical concentrations is not readily available from this study.

Instantaneous temperature measurements were also taken as part of the study. Stream temperature increases attributable to storage reservoirs are briefly discussed in Section 3.4.2. More information can be found in the Temperature TMDL for the Columbia River Basin (US EPA 2002b). The concentration of nutrients present in streams in the Columbia River Basin (includes the Columbia Basin Project) was studied by the USGS as part of the National Water Quality Assessment (NAWQA) Program (Williamson et al. 1998). The study reports concentrations of nutrients in the streams, but does not attempt to distinguish between natural inputs and inputs from land use practices.

It is acknowledged that increased intensity of land uses, including residential as well as agricultural land uses, have been documented as increasing the degradation of water quality. Nutrients from fertilizer use and pesticides have negative effects on aquatic biota, as well as other wildlife. It will be necessary for surface water managers throughout the basin work to implement existing regulations aimed at controlling impacts to surface and ground water bodies as the region continues to develop.

- 9-82. This paragraph was modified at the suggestion of Reclamation. See the response to Comment 6-65.
- 9-83. The operating levels of Moses Lake and Potholes Reservoir would not change with the Supplemental Feed Route. Wetlands and shorelines would not increase on those two water bodies and therefore would not change mosquito control efforts.
- 9-84. The citation has been corrected.
- 9-85. The Final EIS text has been revised to include a new section specific to WDFW priority species and more detailed descriptions of key species. References to PHS data and WDFW PHS Management Recommendations have been added.
- 9-86. The Final EIS has been revised to use consistent terminology.
- 9-87. The Final EIS text has been changed to use “approximately 50 percent” instead of “over half.” The most recent and available scientific literature assessing the loss of native shrub-steppe habitat in the state consistently reports a figure of about 50 percent. This

figure is based on previous mapping studies and a 2000 study by WDFW that mapped remaining habitat using a thematic mapping sensor on the Landsat 5 satellite platform (Jacobsen and Snyder 2000).

- 9-88. Please refer to Master Response for a Programmatic EIS. At this point, details are not available to specifically quantify acreages of wetlands, shrub-steppe habitat, etc.; however, it is acknowledged that habitat losses have occurred because of conversion to agriculture.
- 9-89. The word “free” has been changed to “available” in Section 3.7.3.1 for clarification. Water in shrub-steppe environments is limited due to lack of precipitation and high evapotranspiration rates. The text describes how this lack of available water narrows the number of species present to those that are physiologically adapted to high temperatures and dry climate. Some species must have daily access to water for survival (ungulates, bats, etc.) and others can survive on the water provided in food (sage sparrow, etc.)
- 9-90. Section 3.7.3.1 is intended to provide a general overview of wildlife habitat, habitat elements, and associated wildlife species in the project area; priority species specific to the project area are discussed in the following sections. Section 3.7.3.4 has been revised to describe priority species in greater detail. In response to this comment, additional research of available literature was conducted and new citations have been utilized in Section 3.7.3.1. For the second part of this comment, see the response to Comment 9-20.
- 9-91. See the response to Comment 9-20.
- 9-92. See the response to Comment 9-20. The Final EIS has been revised to provide more synthesis of the potential impacts of the Management Program.
- 9-93. There was no intent to imply that concerns about wildlife are limited to pygmy rabbits and bald eagles. It is acknowledged that concerns about wildlife habitat are comprehensive and address a wide range of species. The descriptions of the various study areas for early actions are meant to refer back to the vegetation communities and habitat types previously described (to avoid repetition) and provide any available information from specific reports on the particular early action study area.
- 9-94. The Final EIS text has been expanded to provide a broader discussion.
- 9-95. Text has been added to section “3.2.2.2 Jobs and Incomes” to describe the value of recreation related to natural-resource amenities in Washington state and in eastern Washington, in particular.
- 9-96. Section 4.0 is the introduction to the section and generally describes the range of impacts associated with different types of storage and conservation projects. Additional information on impacts of conservation projects is discussed in Section 4.2. Cumulative impacts are described in Section 4.3.

- 9-97. The EIS has been revised to suggest that while the affected area for a large storage project may be limited to a single area, that area could have extensive resources.
- 9-98. A discussion of converting streams to reservoirs is contained in the long-term impacts paragraph of Section 4.1.1.3. A separate environmental review would be required of any reservoir proposal. Detailed environmental studies and consultation with agencies would be required.
- 9-99. The text of the Final EIS has been amended to reflect this comment.
- 9-100. Impacts of filling the reservoir on short-term nutrient loading and productivity increases with decomposition of inundated organic material are included in Section 4.1.1.6.
- 9-101. The requested change has been made.
- 9-102. Comment noted. It is acknowledged that specific impacts to shrub-steppe habitat could be locally significant. The potential for impacts to valuable habitat will be considered when evaluating the feasibility of individual projects. Additional site-specific studies would be conducted to more accurately assess these impacts when projects are identified. The Programmatic EIS identifies the range of possible impacts associated with the Management Program. For short-term impacts to vegetation, the greatest level of impact would be the loss of shrub-steppe habitat (Note: the word “undisturbed” has been replaced with “intact” in the Final EIS to reduce confusion with the disturbance caused by fire). The relative value of the habitat is unknown at this time, so a worst case scenario is the upper range of impact (i.e., intact shrub-steppe). The lowest level of impact would be the loss of habitat provided by existing agricultural lands. Refer to the response to Comment 9-36.
- 9-103. The Final EIS text acknowledges that communities will change due to the addition of new water. The Final EIS text has been revised to outline the potentially negative impacts and includes the species noted in your comment.
- 9-104. The comment regarding white-tailed deer is acknowledged. The sentence regarding pygmy rabbits in the wild has been removed from the Final EIS and pygmy rabbits have been added to the group of listed shrub-steppe-dependent-species that would incur an increased risk for further habitat loss.
- 9-105. See the response to Comments 9-36 and 9-42. Refer to Master Responses for a Programmatic EIS and Future Off-site Storage Projects. Habitat acquisition will be included in the list of mitigation options considered for project-specific evaluation.
- 9-106. See the response to Comments 9-36 and 9-42. Construction of wildlife structures has been removed as requested in your comment. It is acknowledged that long-term mitigation costs need to be incorporated into overall project costs. The Final EIS text has been revised to reflect this information.
- 9-107. Your comments are noted. At your suggestion, Section 4.1.1.1 Socioeconomics–Long-Term Impacts has been amended to describe possible impacts to regional ecotourism in

light of the proposed actions. A more in-depth analysis of the economic impacts will be conducted if a specific project related to the area is proposed.

- 9-108. It is acknowledged that ecotourism is a growing economic factor in the Columbia River Basin. The Final EIS text has been revised to list some of the ecotourism activities.
- 9-109. Additional information on the impacts of conversion of non-irrigated lands to agriculture has been added to Section 4.1.1.6.
- 9-110. Comment noted. The cumulative effects sections of Chapters 4 and 5 have been revised.
- 9-111. Comment noted.
- 9-112. Comment noted. Section 4.1.1.6 has been revised to include the increase in exotic and invasive species as a potential impact.
- 9-113. The Final EIS text has been revised.
- 9-114. Comment noted. The text of the EIS has been changed to reflect this comment.
- 9-115. The name has been corrected throughout the document.
- 9-116. The cumulative impacts section has been revised as have the sections on plants and wildlife.
- 9-117. The Final EIS text has been revised.
- 9-118. The suggested sentence has been incorporated into the Final EIS.
- 9-119. The Final EIS text has been revised.
- 9-120. Ecology has determined that the drawdown of Lake Roosevelt has the potential to have a significant adverse environmental impact and will be preparing a Supplemental EIS on the drawdown.
- 9-121. It is anticipated that minimal additional infrastructure will be required to supply the 30,000 acre-feet of water to the Odessa Subarea. The water will be transmitted from Banks Lake using the East Low Canal. The area being supplied is already under irrigation using groundwater. The 30,000 acre-feet of replacement water will be delivered to the existing irrigation system. In some cases conveyance systems will need to be constructed to deliver water to individual farms.
- 9-122. The suggested sentence has been incorporated into the Final EIS.
- 9-123. See the response to Comment 9-121.
- 9-124. As stated in Section 5.1.2.8 (first paragraph under Long-term Impacts), the indirect impacts of agricultural conversion are discussed in Section 4.1.1.8. “Fully planning under GMA” means that the cities and counties are meeting the requirements of the

Growth Management Act for planning and updating their comprehensive plans and other GMA plans and ordinances. GMA requires that counties and cities update their critical areas ordinances every five years. The revisions are done in response to a legislative requirement, not in response to changing natural and anthropogenic environments. Compliance with adopted comprehensive plans will be evaluated as part of project level environmental analysis that will be conducted on specific projects.

- 9-125. Section 5.2.1.4 has been revised to include information about the perennial reach of Crab Creek.
- 9-126. The text in Section 5.2.1.5 quotes statutory language regarding title to beds and shores when the United States constructs a reservoir or other irrigation work. Beyond this, the EIS does not discuss federal easement rights and does not offer an interpretation of the statutory language.
- 9-127. An explanation has been added to Section 5.2.1.4 that describes how increased ground water flows into Rocky Coulee Creek could be a source of cool water to the creek that could improve water quality
- 9-128. The locations of water rights that might be granted under VRAs are not known at this time.
- 9-129. Impacts to Esquatzel Creek will be evaluated as part of project specific environmental analysis when a specific project is proposed. The Creek is not expected to be impacted by any of the early action projects.
- 9-130. Comment noted.
- 9-131. Comment noted.
- 9-132. See the response to Comment 9-8.
- 9-133. See the response to Comment 9-9.
- 9-134. See the response to Comment 9-9.
- 9-135. See the response to Comment 9-9.
- 9-136. See the response to Comment 9-10.
- 9-137. See the response to Comment 9-11.
- 9-138. See the response to Comment 9-12.
- 9-139. See the response to Comment 9-13.
- 9-140. See the response to Comment 9-14.

9-141. See the response to Comment 9-14.

9-142. See the response to Comment 9-15.

9-143. See the response to Comment 9-16.

9-144. See the response to Comment 9-17.

9-145. See the response to Comment 9-18.

9-146. See the response to Comment 9-19.



STATE OF WASHINGTON

DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION

1063 S. Capitol Way, Suite 106 • Olympia, Washington 98501
Mailing address: PO Box 48343 • Olympia, Washington 98504-8343
(360) 586-3065 • Fax Number (360) 586-3067 • Website: www.dahp.wa.gov



October 16, 2006

Mr. Derek I. Sandison
Central Regional Office
Department of Ecology
15 West Yakima Avenue, Suite 200
Yakima, Washington 98902

Log No.: 101606-01-COE-S
Re: Columbia River Water Management Plan

Dear Mr. Sandison;

Thank you for contacting our department. We have reviewed the Draft Programmatic Environmental Impact Statement (DEIS) for the Columbia River Water Management Plan.

10-1 [We understand from the document that federal permits and/or federal funding may be required for elements of this plan. As noted on page 3-80 of the DEIS compliance with Section 106 of the National Historic Preservation Act will be required, and we anticipate on-going consultation with the responsible agencies pursuant to 36CFR800.

In terms of this DEIS we concur with your identification of cultural resources in Section 3.10 as a significant resource topic and their protection under both federal and state laws.

10-2 [The analysis of impacts in Sections 4.1.1.9 and 5.1.2.9 and specifically the statements on page 5-22 does not accurately reflect either the short-term or long-term impacts at a project level. From our experience with cultural resources impacts at existing reservoirs in Washington State the short term impacts at the project level are significant and require the development of a Programmatic Memorandum of Agreement for the life of the project to assure archaeological, historic, and traditional cultural properties are appropriately identified, evaluated, and property specific treatment plans are developed.

10-3 [Existing reservoirs in Washington have ongoing programs for the life of the project to assure that operational changes, on-going erosion, and new project elements address cultural resource issues as they surface. Our experience is that long term impacts are significant, on-going, and require a robust Cultural Resources Management Plan (CRMP).

We look forward to further consultation and working with your agency and the other consulting parties as you identify specific projects.



Mr. Derek I. Sandison
Central Regional Office
Department of Ecology
15 West Yakima Avenue, Suite 200
Yakima, Washington 98902
Page 2

10-4 [We would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(a)(4).

These comments are based on the information available at the time of this review and on the behalf of the State Historic Preservation Officer in conformance with Executive Order 0505 and Section 106 of the National Historic Preservation Act and its implementing regulations 36CFR800. Should additional information become available, our assessment may be revised. Thank you for the opportunity to comment and a copy of these comments should be included in subsequent environmental documents.

Sincerely,

Robert G. Whitlam, Ph.D.
State Archaeologist
(360) 586-3080
email: rob.whitlam@dahp.wa.gov

cc: C. Pleasants
K. Valdez

Comment Letter No. 10 – Department of Archaeology and Historic Preservation

10-1. Comment noted.

10-2. As this is a Programmatic EIS, it is not intended to analyze impacts on a project level. (Refer to the Master Response regarding a Programmatic EIS.) Section 5.1.2.9 (page 5-22 in the Draft EIS) discusses the impacts to cultural resources in receiving areas; much of this is already in agricultural use and the continued use of the land for agriculture is considered to have low impact on cultural resources. Section 4.1.1.9 addresses the need for a Programmatic Agreement.

10-3. The Final EIS text in Section 4.1.1.9 has been revised to reflect this comment.

10-4. Ecology will continue to coordinate with DAHP and will provide you with relevant correspondence. Comments from the Tribes are included

Volume II of the Final EIS, along with responses.

November 20, 2006

Derek Sandison, Regional Director
 Central Regional Office
 WA Department of Ecology
 15 West Yakima Avenue Suite 200
 Yakima WA 98902

SUBJECT: Draft Programmatic EIS for the Columbia River Water Management Program

The Washington Natural Heritage Program is responsible for maintaining information on rare plant species and high-quality ecosystems in the State of Washington. We have reviewed the above document and have the following comments. Our comments are based upon (1) a review of the statewide database that we maintain regarding rare plants and high quality ecosystems and (2) the experience and expertise of our staff scientists.

- 11-1 All of the proposed reservoir sites have important biological and ecological features present. More thorough surveys are needed, however, to fully assess the potential ecological impacts of each water storage project on the rare plants and ecosystems present.
- 11-2 Of the four proposed reservoir sites, Crab Creek has the highest potential to affect significant natural resources due to the biodiversity values present – rare plant species and high quality ecosystems (sand dunes, cliff and talus, scabland, shrubsteppe). Lower Crab Creek Natural Area Preserve, managed by the Department of Fish and Wildlife (DFW), also is located at this site.
- 11-2 The Foster Creek and Hawk Creek sites also have significant natural features – rare plants, riparian vegetation, woodlands, grasslands, scablands, and some shrubsteppe. There is also a DFW Wildlife Area in the Foster Creek area.
- There are also rare plants, sand dunes, shrubsteppe, and scabland present at the Sand Hollow site as well.
- 11-3 In the *Affected Environment* section of the document under *Plants*, state listed plant species that are not federally listed or candidates for listing should also be addressed for the project areas. The Washington Natural Heritage Program should be referenced as the agency responsible for maintaining this information and should be consulted for potential effects that this project may have on state listed plant species.
- 11-4 In *Appendix I State Listed Plant and Wildlife Species*, the plant list has been omitted in the Draft EIS. This list should be added to the document. The Washington Natural Heritage Program can provide this information upon request.

Derek Sandison, Department of Ecology
 November 20, 2006
 Page 2

Thank you for the opportunity to provide comments on the Draft Programmatic EIS for the Columbia River Water Management Program. Please feel free to contact me if you would like additional information from the Washington Natural Heritage Program.

Sincerely,

Sandy Swope Moody, Environmental Review Coordinator
 Washington Natural Heritage Program
 PO Box 47014
 Olympia WA 98504-7014

360-902-1697

Comment Letter No. 11 – Department of Natural Resources – Washington Natural Heritage Program

11-1. Comment noted. Please see the Master Response regarding Future Studies for Off Channel Reservoir Proposals. Significant natural resources will be one of the factors considered in the Appraisal and Feasibility studies being conducted on the off-channel storage sites.

It is acknowledged that additional studies will be done at the time specific projects are identified. Refer to the Master Response for future site-specific studies.

11-2. The Final EIS text has been revised to reflect this comment.

11-3. Table 3-16 has been updated to include plant species that are classified as a species of concern by the USFWS in addition to those species that are listed as endangered, threatened, or candidate. Two additional sections have been added to the Final EIS. Section 3.7.2.2 discusses the state listed species and 3.7.2.3 includes a description of WDNR and the Natural Heritage Program.

11-4. Appendix I has been revised to include all state listed plant species.

Leo Bowman
District 1
Max Benitz, Jr.
District 2
Claude Oliver
District 3

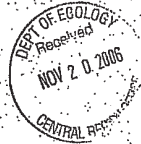
**Board of County Commissioners
BENTON COUNTY**



David Sparks
County Administrator

Loretta Smith Kelly
Finance Manager

November 20, 2006



Mr. Derek Sandison, Central Regional Director
Department of Ecology
15 West Yakima Ave., Suite 200
Yakima, WA 98902

Dear Mr. Sandison:

The Board of Benton County Commissioners has reviewed the Draft Programmatic EIS for the Columbia River Water Management Program of October 9, 2006. Our Board would like to offer the following responses, comments and considerations for new water rights from the Columbia River.

There are four Columbia River Water Management Program components in sub-section II which we would like to address; namely,

2.1.2.1 Storage Component

- > Storage projects must be aggressively pursued using the watershed planning process under R.C.W. 90.82. The draft report has six sites identified - Hawk Creek, Foster Creek, Sand Hollow, Crab Creek, Black Rock Reservoir and the Walla Walla Pump Exchange.
- > Department of Ecology should be involved with Bureau of Reclamation on building a large reservoir in the Columbia River System;
- > No new storage reservoir has been built in the Yakima River Basin in the last 80 years. "Not Acceptable".....We must meet the needs for the economic community and development needs as well as instream flow for fish.

2.1.2.2 Conservation Component - Net water savings from conservation.

First, what conservation projects can be considered? Second, what conservation projects will result in immediate savings that accrued wet water savings can be applied for new water right from the Columbia River?

- > The distance between the point of savings and the river, which creates a time lag;
- > The dynamics of natural recharge and other return flows to the river, which complicates the analysis of conservation savings;
- > The ability to quantify and monitor consumptive versus non-consumptive water savings;
- > Please review the draft supply inventory & long term water supply and demand forecast of Oct. 2006. Not user friendly. Conservation districts submitting information - their cost \$782 million. Irrigation districts identified 82 projects totaling 425,000 AF of water at a cost of \$450,000 million. The point here is that the irrigation district projects are primarily water conveyance/water transmission project (piping) with minimal net water savings. Again, what is the wet water savings?
- > Funding criteria for conservation projects: *Response:*
 - Columbia River Supply Development account must be spent on the development of new storage projects. RCW 90.90.010(2)(A). Expenditures may be for new storage and other listed activities and projects (conservation) which result in new water supplies.
- > Defining "acquisition and transfers": *Response:*
 - Yes, acquisition and transfers mean any non-storage project that is funded through conservation efforts;
- > Conditioning water rights on instream flows: Yes, state legislators should re-address the instream flow requirement for all months of the year in the Columbia River. The Intent was to define water acquisitions and transfers as those related to water right acquired by direct purchase and/or gift separately from conservation project.

2.1.2.3 Voluntary Regional Agreement Component

Yes, aggressively pursue VRAs with the following possible suggestions: *Response:*

- > Processing Voluntary Regional Agreements, after ground rules for the component are in place first.
- > Coordinating VRA mitigation and processing new water rights. Yes, seek legislative authority to skip applications;
- > Coordinating VRA and non-VRA processing. Group within the Columbia River one-mile corridor with WRIA permitting;
- > Funding projects associated with VRA; no mitigation for applicants in VRA

2.1.2.4 Inventory and Demand Forecasting Component

- > Defining "No Negative Impact" to instream flows of the Columbia and Snake Rivers: *Response:*
 - Yes, the location where net water savings from a tributary project would be measured would be at the mouth of the tributary;

- State legislators should re-address the instream flow requirement on the Columbia/Snake Rivers for all months of the year. This is a "foundation" question of the management plan. The provisions of the new law (RCW 90.90) are in conflict with existing law, (ie page 4 - 49 of the draft programmatic environmental impact statement for the Columbia River Water Management Program).
- 12-4 > Defining the Main Channel and One-Mile Zone: *Response:*
 - Use water resource inventory area for "effective mainstream water resource planning and management"
- > Inclusion of exempt wells in water use inventory: *Response:*
 - No, do not include exempt wells in the information system.
- > No action alternative: NOT AN OPTION.
- > Other non-project alternatives considered but not carried forward to environmental review: *Response:*
 - Must consider all viable approaches for water storage description of early actions and alternatives;
 - Yes, include all the projects listed as well as Black Rock.

Chapter 6.0 policy discussion

- 12-5 > Aggressively pursue storage options. The Department of Ecology must be tasked to develop long-term storage options as we have no other solution to the needs of all; agriculture, economic sustainability and biological support of fish. The 2007 Legislature should readdress the 13 Policy issues in Section II of the DPEIS.

Thank you for your time and attention to the above concerns we hope could be addressed by the Department of Ecology. We would be more than willing to offer our assistance to any of the above-mentioned matters.

Sincerely,

BOARD OF BENTON COUNTY COMMISSIONERS



Max Benitz, Jr.
Chairman

cc: Commissioners
VJ Meadows, Sustainable Dev. Coordinator
Adam Fyall, Community Dev. Coordinator

Comment Letter No. 12 – Benton County Board of County Commissioners

- 12-1. Section 6.2.1 has been revised in the Final EIS to reflect the broader legislative direction to pursue “new water supplies,” not only storage.
- 12-2. See the response to Comment 9-8.
- 12-3. See the response to Comment 9-12.
- 12-4. See the response to Comments 9-14, 9-9-15, and 9-19. The No Action Alternative is included as required by the State Environmental Policy Act. It is used primarily as a baseline comparison for the action alternatives. The Black Rock project is being evaluated under a separate process. See Section 2.2.2.1, New Large Storage Facilities.
- 12-5. Comment noted.

David McClure
Klickitat County
davem@co.klickitat.wa.us

13-1 Section S.2.1 It states in the 2nd paragraph that VARs allow water users to enter into agreements with Ecology to exchange a package of conservation projects for new water rights or water right transfers. However the statute (RCW 90.90.130) does not require VARs to include conservation projects. The provisions of RCW 90.90.130(2) may be met by implementing conservation projects or potentially other means such as developing water storage projects.

13-2 The statute does not limit the VARs to agreements between Ecology and water users. For example Ecology could enter into a VAR with a watershed management partnership or lead agency for watershed planning. A VAR could be a mechanism for implementing obligations agreed to under RCW 90.82.130(3).

13-3 Section 2.1.2.1 Watershed planning under chapter 90.82 RCW is underway in many the water resource inventory areas (WRIAs) comprising the portion of the Columbia basin that is within the State of Washington. The EIS should note the role that an approved watershed plan has under RCW 90.82.130(4); i.e. Ecology shall use the plan as the framework for water resource management decisions and shall rely upon the watershed plan as a primary consideration in determining the public interest related to water resource decisions within the WRIA. This includes decisions pertaining to water storage within the WRIA.

13-4 Modification of existing storage facilities is discussed briefly on page 2-8. However new storage facility development and allocation of waters from new storage facilities are treated differently in the statute than modification or alteration of the operation of existing storage facilities. Two thirds of the funding in the Account is dedicated for projects supporting development of new storage facilities and the water from new storage facilities is apportioned by the statute 1/3 for instream and 2/3 for out-of-stream uses. Projects pertaining to modification or alteration of the operation of existing storage facilities compete for the remaining 1/3 of the funding in the Account with conservation and other actions designed to provide access to new water. New water resulting the modification or alteration of the operation of existing storage facilities is not apportioned by the statute 1/3 for instream and 2/3 for out-of-stream uses. Modification or alteration of the operation of existing storage facilities should be addressed separately from new storage facilities perhaps in section 2.2.

13-5 Section 2.1.2.2 Again the EIS should note the role that an approved watershed plan has under RCW 90.82.130(4); i.e. Ecology shall use the plan as the framework for water resource management decisions and shall rely upon the watershed plan as a primary consideration in determining the public interest related to water resource decisions within the WRIA. This includes decisions

13-5 [pertaining to water conservation programs and water trust programs within the WRIA.

13-6 [Conservation projects must provide access to new water supplies.

13-7 [Agree conservation projects can be funded anywhere within the State of Washington portion of the Columbia River basin.

13-8 [Section 2.1.2.3 RCW 90.90.030 enables Ecology to enter into VARS for the purpose of providing new water for out-of-stream use streamlining the application process and protecting instream flows. The statute does not require a package of conservation projects. The provisions of RCW 90.90.130(2) may be met by conservation projects or potentially other means such as developing water storage projects.

It states in the 2nd paragraph that VARs allow water users to enter into agreements with Ecology to exchange a package of conservation projects for new water rights or water right transfers. However the statute (RCW 90.90.130) does not require VARs to include conservation projects.

13-9 [Agree VARs can be proposed anywhere within the State of Washington portion of the Columbia River basin.

13-10 [Is the public interest test applicable to both surface water and ground water right permit decisions?

13-11 [Section 2.1.2.4 This subsection informs that Ecology worked with consultants the State Conservation Commission and local conservation districts and Washington State University to develop the inventory and demand forecast. However there is no discussion of how Ecology must worked with interested county legislative authorities watershed planning groups and other parties specifically identified in RCW 90.90.040(1).

13-12 [Section 2.2 Section 2.2.2 and 2.2.3 address conservation and discuss how conservation is one of the purposes for which one third of the funds from the account may be spent. There is no discussion of use of this portion of the funds for improvement or alteration of existing storage facilities or for other actions designed to provide access to new water supplies.

13-13 [Section 2.2.1 Ecology should aggressively pursue storage options in order to implement the statute in a manner consistent with the direction the legislature's provided Ecology in RCW 90.90.005(2).

13-14 [Section 2.2 This section should address modification or alteration of the operation of existing storage facilities.

Section 2.2.2 RCW90.90.010(4) states: Net water savings achieved through conservation measures funded by the account shall be placed in trust in proportion to the state funding provided to implement the project. The statute does not direct that the net water savings be placed in the State Trust Water Rights Program. The net water savings could be placed in a trust established and operated pursuant to a watershed management plan.

13-15

There is no indication in the statute that benefits of net water savings to instream flows should enter into determining net water savings. Net water savings from a project could include both consumptive and non-consumptive components. For example an industrial user might change production processes resulting in a reduction in both consumptive and non-consumptive water use. Both the consumptive and non-consumptive components must go into trust in proportion to the state funding provided to implement the process change and both must be available to fulfill the purposes of the trust. Where trust water is used to mitigate for out of stream uses those uses will likely have consumptive and non-consumptive components that could be satisfied by the trust.

Section 2.2.3 As stated in the comment on section 2.2.2 the statute does not direct that net water savings go into the State Trust Water Right Program. Where the conservation occurs within a WRIA subject to a watershed management plan approved under chapter 90.82 RCW Ecology should use the watershed plan as the framework for allocating net water savings among instream and out of stream purposes. In absence of an applicable watershed plan net water savings should be used to mitigate for permits authorizing out-of-stream beneficial uses.

13-16

Section 2.2.4 In the first sentence of the first paragraph complete the sentence quoted from RCW 90.90.010(2)(a) because it is potentially significant that with specific legislative authority expenditures from the account can be made for acquisitions and transfers from one WRIA to another.

13-17

Section 2.2.6 Aggressively pursue VARs. As an example a watershed plan could include a VAR as a strategy to meet instream and out of stream water demand.

13-18

Section 2.2.8 Water withdrawal should be permitted to occur downstream of or anywhere in the same pool where the net water savings through conservation or water made available by action(s) to prevent negative impact on mainstem instream flows occur including in tributaries. Avoidance of negative impact to Columbia or Snake river mainstem instream flows during the specified months might be achieved through means other than conservation.

13-19

Section 2.2.9 Where in the statute does it limit VARs to enabling withdrawals/diversions from the mainstem of the Columbia River or Snake River only? The statute only says that VARs shall ensure water rights issued from the

13-19

Columbia River mainstem or lower Snake River mainstem not have a negative impact of the Columbia River mainstem or lower Snake River mainstem instream flows.

11/20/2006 11:59:00 PM

Comment Letter No. 13 – Klickitat County

- 13-1. Comment noted. Section 2.1.2.3 has been modified accordingly.
- 13-2. Comment noted. Parties with legal authority to make commitments on behalf of water users and instream resource interests would be eligible to enter into a VRA.
- 13-3. Ecology acknowledges the role that watershed planning plays in water management. Watershed planning is discussed in Section 3.1.1 of the EIS. Water storage projects proposed as part of watershed planning were included in the inventory and demand forecast described in Section 2.1.2.6 of the Final EIS.
- 13-4. Comment noted. The project description in Chapter 2 is organized by type of project, not by the funding allocations. Since similar types of facilities are likely to create similar impacts and require comparable mitigation measures, for purposes of the EIS, this method of organization makes the most sense. It should be noted that creating new storage by modifying an existing reservoir (for example, raising an existing impoundment) would be eligible for funding under the storage portion of the account and would be subject to the one-third/two thirds instream and out-of-stream allocation provisions.
- 13-5. See the response to Comment 13-3.
- 13-6. Consumptive savings obtained through conservation would provide access to new water supplies; however, that is not necessarily the case with non-consumptive savings.
- 13-7. Comment noted.
- 13-8. See the responses to Comments 13-1 and 13-2.
- 13-9. Comment noted.
- 13-10. The public interest test is applicable to both surface and ground water right permit decisions.
- 13-11. The reference in Section 2.1.2.4 (now renumbered as 2.1.2.5) is to the parties that actually participated directly in the preparation of the report, not to parties that were contacted or consulted with during report preparation.
- 13-12. Sections 2.2.2 and Section 2.2.3 address conservation projects. However, for those eligible storage proposals that would not qualify to receive funding through the two-thirds of the Columbia River Basin Water Supply Development Account, the provisions of these sections would apply.
- 13-13. Comment noted.
- 13-14. Modification of existing storage facilities is discussed in Section 2.1.2.1 as part of the storage component of the Management Program.
- 13-15. The portion of Section 2.2.2 referred to in this comment is one of the alternative policy approaches under consideration in the Draft EIS, but is not a policy statement. The question

revolves around how conservation savings obtained through use of the Columbia River Basin Water Supply Development Account should be allocated between instream and out-of-stream use. It would not apply to water put in trust by a private party, or water savings procured through funds other than the Account.

13-16. The text in the Final EIS has been revised.

13-17. Comment noted. See the response to Comment 9-12.

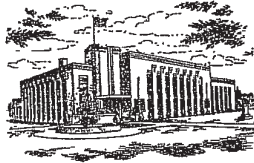
13-18. See the response to Comment 9-14.

13-19. The legislation does not preclude consideration of a VRA that would provide tributary benefits as well as mainstem benefits.

Tony Delgado
District No. 1

Merrill J. Ott
District No. 2

Malcolm Friedman
District No. 3



Stevens County Commissioners
215 S. Oak Street, #214; Colville, WA 99114
Phone (509) 684-3751 Fax (509) 684-8310
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Polly Coleman
Clerk of the Board

Nettle Winders
Assistant Clerk



November 20, 2006

Derek I. Sandison, Regional Director
Central Region Office
Washington State Department of Ecology
15 West Yakima Avenue, Suite 200
Yakima, WA 98902

Subject: Comments on Draft EIS, Columbia River Water Management Program

The following comments are offered for the record, regarding the programmatic EIS on the Columbia River Water Management Program.

Page S-3 S.2.2.1 Lake Roosevelt Drawdown

14-1

Final paragraph dealing with the diversion of Lake Roosevelt waters implies that the only tribe with interest on Lake Roosevelt is the Confederated Tribes of the Colville Indian Reservation. The Spokane Tribe of Indians is also a party with interests who must be included.

Page 2-23 Pgph. 2.5.1 Lake Roosevelt Drawdown

14-2

First paragraph. No mention made of the role the Spokane Tribe of Indians has regarding the Lake Roosevelt drawdown. The Spokane Tribe is intergral to the various management programs on Lake Roosevelt, yet no mention is made within this document as to the role the tribe will play with DOE in drawdown negotiations.

Page 3-14 Pgph 3.3.5 Air Quality in the Lake Roosevelt Area

14-3

Paragraph is characterized with some invective use of adjectives and adverbs describing the discharge of materials into the Columbia River by the smelter in Trail, B.C. Curiously, the Department of Ecology is currently engaged in a legal battle with the smelter, and this type of language does little to show objectivity by the Department. Compare this paragraph with the second paragraph under the Water Quality section of paragraph 3.4.2.1 where more objective phraseology is used, and construction is more relevant to the issues being presently investigated.

Page 3-52 Pgph. 3.7.1.3. Anadromous Salmonid Fishes, Steelhead Trout, 2nd pgph

14-4

Typo – second line of the paragraph – “form” should be “from”.

Page 5.11 Pgph 5.1.1.11 Impacts at Lake Roosevelt for Non-Drought and Drought Year Withdrawals – Recreation and Scenic Resources and Aesthetics

14-5

The supposition is that the Biological Opinion will not affect lake levels, and the eventuality remains that Judge Redden may create some sort of flow pattern that could adversely affect Lake Roosevelt. In combination with the proposed drawdown, then, the recreational sites could be adversely affected, especially in the upper reaches of Lake Roosevelt, or those sites which are exposed with the drawdowns first.

The problem is simply the uncertainty of the judicial opinion, and what options are available should an adverse ruling cause heavy impacts upon the recreational, scenic and aesthetical values in the Lake Roosevelt region. Impacts could be strongly negative.

Considerations for socio-economic impacts could also be affected by the pending litigation outcome. In each and every category of consideration, effort should be made to address the potential additional effects the biological opinion may have upon the whole scheme.

Page 6-1 Pgph 6.1 Policy Discussion

14-6

Throughout this chapter, it is apparent that gaps exist in how the department intends to manage water in concert with the various federal agencies' cooperation. Throughout the EIS, little discussion is given to how the department and the agencies will mitigate conflicts in policies controlling flow and use of water in the Columbia River System. I could not help but sense a lack of vision and insight by the department as to the overall scheme of operations in the implementation of the Columbia River Management Program. For many years, the Lake Roosevelt 5-Party Agreement has been in effect which brings together the various parties in regular meetings to discuss operations of the reservoir behind the Grand Coulee Dam. The EIS makes no mention of the various agreements in existence, yet brings to the reader's attention many of the same facets that the federal river operations currently work with.

14-7 [Unless a person is familiar with the federal operation, this EIS gives little indication of the immensity of the federal operations encompassing both the Columbia Basin Project and the entire Columbia River Project. Perhaps the EIS must be contained to its specific elements, however, the essence of this program is tied to cooperation and collaboration.

14-8 [The fatal flaw that awaits is the inability of the department to have successfully negotiated with the Spokane Tribe of Indians. The Spokane Tribe of Indians has not been treated equally with the Confederated Tribes of the Colville Reservation. The agreement with the Colville's has caused great concern with not only the Spokane Tribe, but also the surrounding counties which abut Lake Roosevelt. Much remains to be done to correct this error. I would encourage the state and the Spokane Tribe to engage in serious negotiations as soon as possible. Much work is yet to be done, before the Columbia River Management Program can become a reality.

Thank you for this opportunity to comment.

Sincerely,



Merrill J. Ott

Stevens County Commissioner

Member, Columbia River Policy Advisory Group

Chairman, Columbia River Commissioner's Advisory Group

Comment Letter No. 14 – Stevens County Commissioners

- 14-1. Additional information on the participation and interest of the Spokane Tribe has been added to the Final EIS text.
- 14-2. See the response to Comment 14-1. Ecology acknowledges that the Spokane Tribe is an important participant in discussions relating to the Lake Roosevelt drawdown.
- 14-3. The paragraph in Section 3.3.5 has been revised in the Final EIS to be more consistent with the Water Quality section.
- 14-4. The typographical error has been corrected.
- 14-5. The outcome of the Biological Opinion will be incorporated into Ecology's evaluation at the time it is published. It would be speculative to attempt to address the possible outcomes of this judicial opinion at this time. WAC 197-11-060(4)(a) states that "SEPA's procedural provisions require the consideration of 'environmental' impacts...with attention to impacts that are likely, not merely speculative."
- 14-6. A new Section 3.1.3 has been added to the Final EIS to clarify the complex management of the Columbia River. Information has been added to Section 3.9.4.1 regarding the Lake Roosevelt 5-Party Agreement. See also the response to Comment 7-6.
- 14-7. Federal operation of the Columbia River system is addressed in Section 3.1.1. Additional information has been added to that section to further clarify the complexity of river operations.
- 14-8. Additional information on the role of the Spokane Tribe in the Management Program has been provided throughout the document. Ecology will continue to coordinate with the Spokane Tribe and other interested parties as the Supplemental EIS on the Lake Roosevelt drawdowns is developed.

Kristi Scherger
WW Cty Watershed Ping
310 W Poplar Suite 201
Walla Walla WA 99360 (509) 524-2646
kscherger@co.walla-walla.wa.us

On behalf of the Walla Walla County Watershed Planning Department I have reviewed the Draft Programmatic EIS for the Columbia River Water Management Program.

Water availability is a very important issue for many communities and businesses in the Walla Walla valley. Any decisions regarding water diversions in the Columbia River basin will create impacts.

The CRWMP Draft EIS cites two areas as examples within the Walla Walla basin which are currently underway and are compliant with Walla Walla Watershed Plan.

Pump Exchange Funding has been made to the Confederated Tribes of the Umatilla Indian Reservation to support a Feasibility Study of a Pump Exchange Project.

Aquifer Storage

The City of Walla Walla evaluation of aquifer storage and recover (ASR)

Additional information referenced within the CRWMP Draft EIS regarding the Walla Walla valley is used only as a reference to sources of information.

Thank you for the opportunity to comment at this important stage of the Program.

11/15/2006 10:29:00 AM

Comment Letter No. 15 – Walla Walla County

15-1. Comment noted.

Wellner, Joanne (ECY)

From: Dan Curry [DCurry@cityofwenatchee.com]
Sent: Monday, November 20, 2006 5:01 PM
To: Sandison, Derek
Subject: Comments to Columbia River Initiative

November 20, 2006

Derek Sandison
WA State Department of Ecology
15 W. Yakima Ave, Suite 200
Yakima, WA 98902-3452

Dear Mr. Sandison,

The City of Wenatchee has the following comments on the thirteen policy choices outlined in the draft Programmatic EIS for the Columbia River Water Resource Management Program.

1. **Selecting Storage Projects**
The City supports Alternative #1 in which Ecology reviews projects only as proposed by applicants.
2. **Defining Net Water Savings from Conservation**
Alternative #2 appears to allow more flexibility and the potential for including more information in determining the benefit of net water savings from conservation.
3. **Funding Criteria for Conservation Projects**
Alternative #3 is the preferred approach. This alternative is a good balance between enhancing instream flows and providing more out-of-stream allocations, which could overall encourage more diverse groups to pursue conservation projects.
4. **Defining "Acquisition" and "Transfer"**
The City recommends that Ecology not create new definitions for acquisition and transfer and simply state that no money will be expended on non-storage projects.
5. **Conditioning Water Rights on Instream Flows**
The City supports Alternative #2 to work towards developing a way of recognizing the benefit of shifting demand from the low-flow months to the high-flow months. This approach is consistent with the Program's emphasis on storage projects.
6. **Initiating Voluntary Regional Agreements**
The City of Wenatchee supports Alternative #1 in which Ecology would review VRAs only as proposed by the applicant.
7. **Processing Voluntary Regional Agreements**
Alternative #1 is the preferred alternative.
8. **Defining "No Negative Impact" to Instream Flows of the Columbia/Snake Rivers**
The City proposes that Ecology not restrict where the net reduction in stream flow is measured.
9. **Defining the Main Channel and One-Mile Zone**
Alternative #2 is the recommended alternative. The Columbia River watershed is of course much larger than the main channel and the area within one-mile of the river, the City supports including as much of the watershed as reasonably possible in the Columbia River Water Resource Management Program.
10. **Coordinating VRA Mitigation and Processing New Water Rights**
Alternative #1 appears to be the simplest option administratively.

11/27/2006

11. **Coordinating VRA and Non-VRA Processing**
The City recommends Alternative #3.

16-1 12. **Funding Projects Associated with a VRA**
VRAs may not be applicable in all situations, so the City supports Alternative #1. How conservation project money is spent should not be limited by whether applicants are part of a VRA or not.

13. **Inclusion of Exempt Wells in Water Use Inventory**
Exempt wells should be included in the water use inventory as stated in Alternative #2. Information about exempt wells is essential to developing a comprehensive inventory and water balance.

16-2 In addition, the City of Wenatchee would like to comment on how Ecology reviews "pump exchange" projects or projects that move water upstream for use. While the benefits of these projects to instream flow might be clear, the City is concerned that water quality issues should also be carefully considered. For example pumping water up a tributary for domestic use may help increase instream flow and provide domestic water for growth. However, if water quality issues exist that are associated with ground water or septic systems, increased availability of domestic water and population density could negatively impact water quality and outweigh the benefits to instream flow.

Thank you for considering the City of Wenatchee's comments.

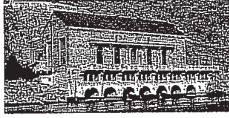
Sincerely,
DEPARTMENT OF PUBLIC WORKS

Dan Curry
Deputy Public Works Director

11/27/2006

Comment Letter No. 16 – City of Wenatchee

- 16-1. Your comments regarding the policy alternatives are noted. Ecology has worked with a Policy Advisory Group and others to revise the policy alternatives. Please see the revised Chapter 6 in the Final EIS.
- 16-2. Water quality impacts of pump exchange projects, including potential indirect impacts associated with growth and/or other types of development, will be evaluated when those projects undergo project level environmental review.



PUBLIC UTILITY DISTRICT NO. 1 of CHELAN COUNTY
P.O. Box 1231, Wenatchee, WA 98807-1231 • 327 N. Wenatchee Ave., Wenatchee, WA 98801
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November 20, 2006

Derek Sandison
Department of Ecology CRO
15 W. Yakima Ave., Suite 200
Yakima, WA 98902-3452



Re: Columbia River Draft EIS Comments

Dear Mr. Sandison

Public Utility District No.1 of Chelan County (Chelan) would like to thank you for the opportunity to provide comments on the Columbia River Draft EIS. Chelan would also like to recognize the work Ecology has put into this very complex subject of balancing multiple needs with a finite source. Chelan has two brief but interrelated comments regarding the proposed drawdown of Lake Roosevelt and one comment regarding municipal water supply.

17-1

The first comment relates to the timing of refill for the additional Lake Roosevelt water withdrawals. If additional water is to be withdrawn, this water will have to be replaced at some point prior to the next season. Due to the low flows and high loads during the winter months of December-February, Chelan would like to impress on Ecology the importance of not using this time period to replace the water withdrawn when implementing this option.

17-2

The second comment relates to compensation impacts relating to the additional drawdown of Lake Roosevelt. Chelan recognizes the additional drawdown would be within the normal operation range of Lake Roosevelt. However, the additional drawdown would be water released above and beyond the amount normally released in a given water year, creating a potential impact. It has been difficult for Chelan to analyze the impacts of this operation on its ability to produce power. This is due to the fact that the timing of the withdrawal and the subsequent refill has a large effect on the magnitude of impact and the timing of the refill component has not been identified. With this being said, Chelan would like Ecology to consider compensation for impacts related to lost power opportunities or costs incurred to purchase power if impacts are identified when more detailed information is available. The compensation would be for the additional costs or loss power opportunities caused by the change in flows when compared to the normal operations of a given water year.

17-3

The final comment is made as a point of clarification regarding Section 3.13.1. This section identifies the East Wenatchee Municipal Water supply separately from the Greater Wenatchee Regional Water Supply. The municipal supply of water for the City of Wenatchee, East Wenatchee Water District, and Chelan County PUD is provided by a Regional Water System that is operated by the City of

COMMISSIONERS: Bob Boyd, Ann Congdon, Norm Gutzwiller, Werner Janssen, Gary L. Montague GENERAL MANAGER: Richard Riazzi

Mr. Derek Sandison
WA State Department of Ecology

17-3

Wenatchee. The three entities, listed above, purchase wholesale water from the Regional Water System. The need for future water rights will be driven in large part by growth and economic development within the service territories of these three entities. Current estimates indicate that the region will reach its water right capacity by 2020. Additional water rights will be needed to serve the region once these water rights are fully utilized.

Thank you for considering these comments as Ecology moves forward on this very complex but important regional issue. Please feel free to contact me with any additional questions or concerns.

Sincerely,

Tracy Yount
Director, Environmental Affairs

Comment Letter No. 17 – PUD No. 1 of Chelan County

17-1. Comment noted. Additional information and analysis on the impacts from the amount and timing of additional drawdown will be provided in the Supplemental EIS that Ecology will be preparing on the Lake Roosevelt drawdown.

17-2. See response to comment 17-1.

17-3. Section 3.13.1 has been revised in the Final EIS.



November 16, 2006

Derek I. Sandison, Regional Director
Central Regional Office
Washington State Department of Ecology
15 West Yakima Avenue, Suite 200
Yakima, WA 98902

Re: Grant PUD Comments on Draft Programmatic Environmental Impact Statement for the Columbia River Water Management Program

Dear Mr. Sandison:

On behalf of the Public Utility District No. 2 of Grant County (Grant PUD), I am writing to submit comments on the Draft EIS for the Columbia River Management Program. First off, we would like to express our appreciation to the Department of Ecology (Ecology) for their responsiveness related to implementation of the Columbia River Management Act including the timely completion of this EIS and formation of the Policy Advisory Group. I am pleased to serve as a member of this group and plan to offer my assistance for successful implementation of the principles of the Act. Grant PUD believes that its participation in this process is vital as we are directly affected by many of the measures of the Act. These comments are structured to provide assistance and suggest improvements to Ecology as you seek to finalize this EIS.

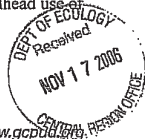
The following comments are divided into two primary areas. An initial section that focuses on our review of the analysis and accuracy of the EIS and a second section that focuses on the policy questions posed in Chapter 6. The following present areas relating directly to Grant PUD requiring modifications:

1. Page 3-25 provides a brief description of total dissolved gas related to spill at the seven mid-Columbia dams. It however, fails to mention that the spill creating elevated TDG levels is typically related directly to fish passage operations and occurs at not just the mid-Columbia dams but can occur at all mainstem Columbia River dams. In addition, Ecology has specific regulations providing standards allowing higher TDG levels during the fish passage season. This section should be revised to reflect these facts.

2. Page 3-55 provides a very cursory overview of the fish community of Crab Creek. This appears to ignore issues and controversy associated with the National Marine Fisheries Service designation of Crab Creek as critical habitat for steelhead listed under the ESA. In addition, the statement: "The intermittent sections of Crab Creek may have precluded the presence of anadromous fish species from accessing the upper reaches of the drainage" is very misleading. It is quite certain that the ephemeral nature of Crab Creek historically rendered as unsuitable for anadromous fish habitat. The more recent issue is the genetic source and verification, or lack thereof related to claims of listed steelhead use of Crab Creek. This section should properly identify these issues.

Public Utility District No. 2 of Grant County, Washington

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Washington Department of Ecology
November 16, 2006

Page 2

3. Table 3-23 on pages 3-81 and 3-82 is not correctly described; the surface area of Priest Rapids Reservoir is 7,725 acres at normal maximum elevation of 488 ft. The surface area of Wanapum Reservoir is 14,680 acres at normal maximum elevation of 571.5 ft. The reference for the table gives Grant County PUD 2006 but there is no matching reference in Chapter 7. It appears that these statistics were taken from Exhibit B-6 of Grant PUD's Priest Rapids Project license application filed with FERC in 2003. The acreage estimates provided in this document were from the "Area of Potential Effect" not Project surface area as implied in Table 3-23. These citation errors and comparison errors should be corrected in the Final EIS.

The following comments are specifically directed to the Policy Discussion of Chapter 6. Grant PUD owns and operates the Wanapum and Priest Rapids Dams located on the mainstem Columbia River. Many of the proposed measures and alternatives being evaluated or considered under the Columbia River Management Act would have a direct impact on Grant PUD, our customers or on Columbia River water management that would impact a number of other entities. These comments are intended to provide some guidance to Ecology on its efforts to implement the Program in a way that proactively manages these potential issues and impacts. However, it is very important to recognize that the economic and other interests of Grant PUD and its customers will be affected in some manner by any of the choices or alternatives that Ecology implements. Since this is a Programmatic EIS, Grant PUD is offering general guidance to Ecology related to these Policy Issues.

The alternatives offered by the DEIS on selection of new storage projects is of particular interest to Grant PUD. This is an area of the DEIS that is overly general and in need of major expansion and improvement. To simply state only a passive option and to re-state what is now required by RCW 90.90 (i.e. aggressively pursue storage options) ignores the policy choices available to Ecology. One of the most important considerations for development of new storage projects will be the process that Ecology uses to develop or consider multiple project purposes. The Final EIS should be revised to include a site evaluation, public involvement and overall development process that would be followed by Ecology in its efforts to implement RCW 90.90. Grant PUD also would like to comment that RCW 90.90 strongly implies that Ecology is already required to take a leadership role on development of new storage projects. This would mean that the alternatives for this section should be structured around the question of "how" to develop new storage projects not whether to be passive or active.

The issue of calculating new water savings from conservation is an issue with high potential for conflict. It might be very desirable to attempt to use some scientific methodology related to instream flow benefits but in practical terms for most conservation projects, this will be nearly impossible for a multitude of issues related to scientific uncertainty, measurement error, assumptions of biological effectiveness, prioritization of habitats and life stages and a number of other unknown complications. For these reasons, a simple rule should be applied.

The funding criteria alternatives suffer from the same problem as described above. Under RCW 90.90 the one-third/two-thirds approach is required by law. The Policy Advisory Group has initiated a process that could result in project funding criteria and Ecology should take these recommendations under advisement.

Ecology should waive the instream flow rule and define the process used for evaluating the situation where overriding considerations of public interest would benefit from increase flexibility. This would enable public input into this rule-making process and eliminate the potential for politics or other considerations related to a concentration of decision-making authority on a case-by-case basis by the Director of Ecology.

Public Utility District No. 2 of Grant County, Washington

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Washington Department of Ecology
November 16, 2006

Page 3

18-9 [The Department of Ecology should follow the literal interpretation of the law and not include exempt wells in the information system. It will be a monumental task to get a complete and accurate information system related to water rights and certificates of the Columbia River. Taking an expansive view of the requirement will only complicate the inventory effort and result in concern about future regulation of exempt wells.

18-10 [Grant PUD works closely with the Quincy-Columbia Basin Irrigation District and the East-Columbia Basin Irrigation District on many of the issues in this Draft Programmatic Environmental Impact Statement and in addition to our comments, we support their position and comments as well.

18-11 [The Draft EIS has recurring general shortcoming in the Policy Discussion because it repeatedly describes alternatives contrary to the Columbia River Management Act. In short, these don't appear to be viable alternatives; instead Ecology should focus on a more thorough analysis of alternatives that are consistent with the intent of RCW 90.90. This would greatly improve the ability of the Final Programmatic EIS to provide guidance related to implementation of the Columbia River Management Act.

18-12 [Grant PUD appreciates the opportunity to provide comments on the Draft EIS and has been impressed with Ecology's responsiveness and commitment to successfully implementing the Columbia River Management Act. We will continue to actively participate with the Policy Advisory Group and offer our advice and assistance as these efforts continue. Please call me at 509-750-8684 if you have questions about these comments.

Sincerely,



Joe Lukas
Assistant General Manager

Public Utility District No. 2 of Grant County, Washington

P. O. Box 878 • Ephrata, Washington 98823 • 509.754.0500 • www.gcpud.org

Comment Letter No. 18 – Grant County PUD

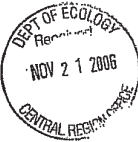
- 18-1. Comment noted.
- 18-2. Section 3.4.2 was revised to reflect the fact that elevated TDG occurs during spill at all of the Columbia mainstem dams and that Ecology has specific regulations that allow a higher standard for TDG during spill for the fish passage season.
- 18-3. Section 3.7.1.4 has been revised to include these issues.
- 18-4. Text and references in Table 3-23 have been updated to reflect this comment.
- 18-5. See the response to Comment 12-1.
- 18-6. See the response to Comment 9-8.
- 18-7. See the response to Comment 9-9.
- 18-8. See the response to Comment 9-11.
- 18-9. See the response to Comment 9-19.
- 18-10. Comment noted.
- 18-11. Ecology has worked with the Columbia River Policy Advisory Group and others to revise the Policy Alternatives. See the revised Chapters 2 and 6 in the Final EIS.
- 18-12. Comment noted.

EAST COLUMBIA BASIN IRRIGATION DISTRICT55 North 8th
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November 20, 2006



Mr. Derek I. Sandison, Regional Director
Central Regional Office
Washington State Department of Ecology 15 West Yakima Avenue, Suite 200
Yakima, WA 98902

RE: ECBID Comments on Draft Programmatic Environmental Impact Statement For
the Columbia River Water Management Program dated October 5, 2006 – Ecology
Publication #06-11-030

Dear Mr. Sandison:

Thank you for the opportunity to review the referenced document. The following
comments are organized in the order in which they appear in the draft PEIS.

19-1 Page S-8, S.3.2.1 This section contains a bulleted statement stating there is a potential
for the expansion of irrigated agriculture and additional decline of shrub-steppe habitat.
This statement is at best an exaggeration and mostly inaccurate. Also I didn't find the
supporting or source discussion in the main body of the draft PEIS. The Columbia Basin
Project CRI MOU and the Odessa Subarea Special Study both target the replacement of
the ground water irrigation with Columbia Basin Project surface water. Both have text
acknowledging there may be some incidental conversion of dryland agriculture to
irrigated agriculture using Columbia Basin Project surface water. "Incidental" is not
quantified and is not known but is likely to be very minor relative to the amount of ground
water replacement. Possible scenarios resulting in the new irrigation of dryland ag lands
could be the avoidance of surrounding relatively small areas of dryland ag with irrigated
land thus compromising the quality of the dryland ag, including some dryland ag in a
specific service area to improve infrastructure economics or as a consideration in the
acquisition of rights-of-way for new infrastructure. The portion of the Odessa Subarea
within the Columbia Basin Project is almost entirely in dryland ag, irrigated ag, or Crop
Rotation Program. There is very little, if any, shrub-steppe remaining on lands suitable
for cultivation. Given the demand for ground water replacement water and for water to
irrigate dryland ag it is very far fetched to think there will be any loss of shrub-steppe
with the possible exception of minor area needed for rights-of way for new
infrastructure.

19-2 Page 2-15, 2.2.3 and 6.2.2 Categorizing the funding of individual projects in the bright
line manner described may exclude beneficial projects having only an out-of-stream or
only an instream flow benefit. Many applicants may not have the ability to provide both
but can provide one or the other. Ecology should develop a methodology to provide for
the projects to provide the best overall combination of benefits.

19-3 Page 2-21, 2.2.13 and also 6.2.12 Is there enough information presently available about
exempt wells to make it practical to include information about them? If more information
is needed will that create delay or controversy? The exempt well topics tend to raise
emotion with some stakeholder groups.

Mr. Derek I. Sandison, Regional Director
November 20, 2006
Page 2

19-4 Page 2-22, 2.4.1 The conservation only approach cannot solve the entire water supply
problem or even come close. 49 conservation projects by this District over an 18 year
period yielded about 16,000 acre feet in annual water savings. When return flow effects
were accounted for the net savings reduced to just over 10,000 acre feet per year.
These are significant amounts and these types of efforts should continue and even
be-intensified. But this is only a drop-in-the bucket compared to the need.

19-5 Page 2-24, 2.5.1 Acknowledge that the 30,000 acre feet applied for by Reclamation is
for a secondary permit from an existing storage certificate. This is acknowledged in
Chapter 5 but a corresponding statement here would be useful for readers who don't
read the entire report.

19-6 Page 2-29, 2.5.2 and Pages 5.2.6 to 28, 5.2.1.3 Mention that a supplemental feed route
will benefit the availability of ground water replacement water for Odessa Subarea by
increasing operational flexibility for the East Low Canal.

19-7 Page 3-14, 3.3.5 Is Lake Roosevelt known to be "heavily" contaminated or just
contaminated? Consider deleting the adverb.

19-8 Page 3-33 to 34, 3.4.2.2 and Pages 5-26 to 28, 5.2.1.3 Consider mentioning that Moses
Lake is 303 (d) listed for phosphorous and describe Ecology's ground water and surface
water technical studies for the cancelled TMDL. One or both of those studies describe
the water quality benefit to Moses Lake of present feed to Potholes Reservoir and
speculate that feeding through the entire summer could offer further water quality
improvements. Both the W20 and Crab Creek alternatives have the potential to offer
such improvements. The W20 alternative has the disadvantage of not being available
through the entire summer. The Crab Creek alternative has a possible disadvantage of
introducing additional phosphorous as it migrates through the Adrian Sink from Crab
Creek to Rocky Ford Creek. Both have the advantage of increasing water circulation
and flushing of phosphorous in the main arm of the lake below the mouth of Rocky Ford
Creek.

19-9 Pages 4-34 to 35, 4.1.2.3 The conservation section appears to lack much discussion
about the possible impacts to return flows being relied upon by down gradient water
users as a source of supply. This is discussed a little in the water rights impacts section,
4.1.2.5, but is not referenced regarding physical impacts.

19-10 Pages 5-1 to 24, 5.1 This sub chapter is well written and comprehensive.

19-11 Pages 5-27, 5.2.1.3 In the first full paragraph should the reference to Rocky Coulee
Creek be Rocky Ford Creek?

Mr. Derek I. Sandison, Regional Director
November 20, 2006
Page 3

19-12 [Pages 6-1 to 2.6.2 Doesn't the mandate of the Columbia River Management Act, ESSHB2860, require the "Aggressively pursue storage option"? That doesn't preclude Ecology from pursuing storage proposals by various applicants but Ecology should maintain its now established initiative regarding new storage.

19-13 [Pages 6-2 to 4.6.2.1 As a methodology also consider:
"Phase I Seepage Analyses East Columbia Basin Irrigation District Water Conservation Projects": by Montgomery Water Group, Inc. August 2, 2004 and
"Phase II Seepage Analyses East Columbia Basin Irrigation District Water Conservation Projects" by Montgomery Water Group, Inc. October 6, 2004.

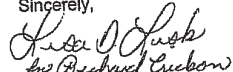
Ecology's Keith Stoffel and Lynn Coleman were involved in reviewing and editing both reports.

19-14 [Pages 6-16 to 17.6.2.8 Including backwater areas as described should be opted for unless it is likely to delay things or incite controversy.

19-15 [Lower Crab Creek We support the comments offered by Joe Lukas, Assistant General Manager of Grant County PUD, particularly the discussion about Lower Crab Creek.

Please contact the undersigned if there are questions.

Sincerely,


for Richard Erickson
Richard L. Erickson
Secretary-Manager

RLE:ll

cc: Joe Lukas, Grant Co. PUD
Darvin Fales, QCBID
Shannon Mc Daniel, SCBID
Bill Gray, USBR
Mike Schwisow, CBDL

Comment Letter No. 19 – East Columbia Basin Irrigation District

- 19-1. The purpose of a Programmatic EIS is to describe the range of potential impacts that might occur from a project. Although it is not expected that the early action items that you list will substantially expand irrigated agriculture, expansion is possible. In addition, the storage and conservation components of the Management Program may also expand irrigated agriculture. Therefore, it is appropriate to discuss the impacts associated with the potential expansion.
- 19-2. See the response to Comment 9-9.
- 19-3. Ecology has decided to include exempt wells in the inventory. Initially, the information will be limited to data that are available electronically and will be modified with future inventories as more data are available.
- 19-4. Comment noted. As stated in the EIS, the conservation only alternative was not carried forward by the Legislature.
- 19-5. The information has been added to the Final EIS text.
- 19-6. This information was added to Section 2.5.2 and Section 5.2.1.4 in the Final EIS.
- 19-7. The Final EIS text has been revised.
- 19-8. Moses Lake is not on the 2002/2004 303(d) list for phosphorus. An additional discussion on water quality based on the Moses Lake TMDL was added to Section 5.2.1.3.
- 19-9. Added a discussion of how conservation could impact return flows and how a decrease in return flows could affect downstream users to Section 4.1.2.3.
- 19-10. Comment noted.
- 19-11. The text in the Final EIS has been modified.
- 19-12. See the response to Comment 12-1.
- 19-13. See the response to Comment 9-8.
- 19-14. See the response to Comment 9-15.
- 19-15. Comment noted.



November 8, 2006

COLUMBIA RIVER WATER MANAGEMENT BRIEFING/CONSULTATION

Mr. Gerry O'Keefe, Columbia River Water Management Coordinator
 Mr. Derek Sandison, WADOE Central Regional Office Manager
 Mr. Tom Tebb, WADOE, CRO, Water Resources Program Manager
 Mr. Dan Haller, Technical Lead, Columbia River Water Management Program

Subjects: KID Comments on the Proposed Voluntary Regional Agreement, Programmatic EIS, and Funding Request for New Water Right Engineering; and Project Development per the Columbia River Account

Gentlemen:

As part of Ecology's consultation process, the KID offers formal comments on the Columbia-Snake River Irrigators Association (CSRIA) and Ecology Voluntary Regional Agreement (VRA) for the development of new water rights under the Columbia River Water Management Program.

Our comments reflect the KID's needs and objectives to provide irrigation service to over 20,000 agricultural, residential, and commercial customers, and to meet the apparent demand needs of a growing Quad-Cities area. Irrigation water is an important asset supporting our economy and lifestyle, and it is our intent to sustain and enhance this asset through careful water resources management, and through the acquisition of a new Columbia River water right.

CSRIA-Ecology Voluntary Regional Agreement (VRA) and Related Actions:

The KID firmly supports the implementation of the CSRIA-Ecology VRA; this Agreement is an important implementation "tool" that brings into being the 2006 Columbia River Water management legislation. The Columbia River legislation directs the state and water users to embrace collaboratively new water efficiency and management approaches, and to protect current water users and secure new supplies for our communities.

The KID also offers the following recommendations:

- Ecology should move expediently forward with the consultation process for the VRA. The VRA should be signed by CSRIA and Ecology, as soon as statutory and procedural time lines allow.

12 West Kennewick Avenue, Kennewick, WA 99336

Phone: (509) 586-5111

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- The pending KID water right should be one of the initial water rights granted under the new VRA. The proposed water right is highly consistent with the VRA approach and the application of a new water management approach taking advantage of conservation and efficiency improvements, water transfers, and improvements to in-stream flows where measurable impacts can be obtained.
- Via the guidance offered by the draft VRA, Ecology and KID staff should pursue regular consultations throughout the next few months to evaluate technical, legal, and policy components surrounding the issuance of a new Columbia River water right for the KID.
- With the completion of the VRA consultation period, Ecology staff and KID representatives should review how the VRA may be used to accommodate some of the key features of the new KID water right, including:
 - Respect for the existing KID Conditional Final Order (CFO) under the current Yakima River Basin water adjudication; and providing pragmatic and workable efficiency standards for the diverse needs of the District.
 - An ability of KID to improve water efficiency objectives and provide "no negative impacts" to main stem Columbia River flows through internal recalibration of the District's existing water right—and used in conjunction with a new Columbia River water right.
 - An optimization of the water resources transfer under the new water right, exchanging Yakima River flows for Columbia River water.
 - Mitigation options for the new KID water right.
- With the completion of the VRA consultation period, Ecology and KID staff should jointly prepare a report of examination and record of decision for the issuance of the new KID water right permit.

The Ecology Programmatic EIS:

The KID generally supports the proposed action/proposal contained in the Programmatic EIS for implementing the new Columbia River Water Management legislation (and the preferred alternatives/proposed actions therein).

More specifically, we note the following:

- The KID supports the proposal/proposed action for implementing the Columbia River Water Management Program and the early implementation actions, including a Lake Roosevelt drawdown (re-regulation), a supplemental feed route for the Potholes Reservoir, and the Ecology-CSRIA Voluntary Regional Agreement (VRA).

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- 20-3
- The KID supports most directly the VRA and its application for the issuance of a new Columbia River water right for the KID.
 - The EIS offers a satisfactory level of information to assess adequately the significant or non-significant impacts affecting the proposed actions. The technical information within the EIS is adequate to proceed with the VRA.
 - The coverage of the irrigated agriculture impacts within the EIS is more realistically served by the UW review—as it relates to incremental additions of irrigated acreage—than the American Rivers commentary. The UW work also was conducted with a technical review committee, while the American Rivers' work is simply advocacy politics. It would seem to be very self-serving for a group from Texas A&M to downplay new irrigated agriculture in Washington State, while their own state is a market competitor with Washington agricultural products. The real-world conditions in Columbia River agriculture—and within our service area—do not conform to that suggested by American Rivers.
 - We are pleased to see that the observations and recommendations of the NAS report are not overstated, as the report contains serious gaps in adequately evaluating available empirical data/studies pertinent to impacts related to new Columbia River water right withdrawals.

Funding Request Under the New Columbia River Basin Water Supply Development Account:

As previously conveyed to you, the KID would like to apply for Ecology/state co-funding, for its proposed Columbia River water right review, under the Columbia River Basin Water Supply Development Account. We believe that this work is eligible for co-funding under Section 7(2) of the 2006 Columbia River Water Management legislation, encouraging projects for water exchanges in the Yakima River.

20-4 The new (KID) Columbia River water right would allow for:

- Water transfers (change in withdrawal points, water exchanges, and some additional water withdrawals) from the Yakima River to the Columbia River.
- A significant amount of the existing KID service territory, currently served by Yakima River water, to be serviced by Columbia River water, and additional lands in the Red Mt.-W. Richland and South Ridge areas to be serviced with Yakima River water.
- New pump stations placed at Kiona (Yakima River) and at Edison St. (Columbia River); the overall approach is more, smaller withdrawals along the river corridors to service KID.

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- 20-4
- Significantly increase flow within the Prosser to mouth of Yakima River Reach (ranging from about 400 to 130 cfs), with a very small decrease to mainstem Columbia River flows (57 cfs as currently envisioned).

Specifically, co-funding is initially requested for:

- Appraisal and preconstruction engineering/economics and water right evaluation work for the Edison St. portion (direct water transfer between Yakima and Columbia Rivers) of the proposed project (Columbia River pump station and mainline).

With completion of the project review and the issuance of a new Columbia River water right, co-funding is requested for:

- The construction engineering and capital construction for the Edison St. portion of the proposed project (Columbia River pump station and mainline).

20-5 Per our recent discussions, we know that you are in the process of some internal clarification of what types of projects can be funded, and we are aware that the construction engineering and capital funding needs for the KID water right project would not be eligible for state funding until issuance of a water right. However, the project appraisal work now being conducted by the KID appears to be eligible for co-funding.

Please let us know how you wish to proceed with this funding request, and what types of information you require, in addition to the technical reports and information previously provided to you.

The KID management and staff are very pleased with our current interaction and consultations with the Ecology staff, and we are looking forward to soon acquiring a new Columbia River water right to better serve our customers and community.

With my appreciation for your efforts and consideration,



Victor N. Johnson
 District Manager

VVJ/mh

cc: WA State Sens. Erik Poulsen, Mike Hewitt, Jerome Delvin, and Jim Honeyford
 WA State Reps. Kelli Linville, Bruce Chandler, and Dan Newhouse
 Mr. Jay Manning, Director, WADOE
 Mr. Tom Mackay and Dr. Darryll Olsen, CSRIA

Comment Letter No. 20 – Kennewick Irrigation District

20-1. Comment noted.

20-2. Comment noted. The issues you cite will be considered as Ecology evaluates the CSRIA VRA.

20-3. Your comments on the Draft EIS are noted.

20-4. Comment noted. Your request for funding under the Management Program will be considered separately from the EIS.

20-5. See the response to your Comment 20-4.



November 20, 2006

Derek I. Sandison, Regional Director
 Central Regional Office
 Washington State Department of Ecology
 15 West Yakima Avenue, Suite 200
 Yakima, WA 98902

Dear Mr. Sandison:

American Rivers, Washington Rivers Conservancy (WRC) and the Washington Environmental Council (WEC) (referred to collectively as the Conservation Groups) appreciate the opportunity to comment on the Draft Programmatic Environmental Impact Statement (DPEIS) for the Columbia Water Management Program. As you know, American Rivers and WEC played a lead role in the negotiations that culminated in passage of the Columbia River Management Act (the Act), and each of the Conservation Groups and our members have a strong commitment to and interest in ensuring that the waters of the Columbia River and its tributaries are managed in a manner that protects river health for the benefit of people, fish and wildlife.

At the outset, we commend Ecology for its prompt action to implement the bill and to involve the various stakeholders early in the implementation phase. The Columbia River Water Management Program is an ambitious, multi-faceted initiative that will require open communication, accurate information, and good faith efforts to find cost-effective solutions to water supply challenges. The Conservation Groups look forward to working with Ecology and the other stakeholders toward this end.

Ecology's Aggressive Pursuit of New Supplies Is Justified Only to Meet Instream and Consumptive Needs that are in the Public Interest

The DPEIS states that its purpose is to "assist Ecology, federal, state, and local governments and agencies, tribal governments, and stakeholders in formal development and implementation of the Management Program as directed by the Columbia River Management Act." (DPEIS at 1-8) Section 1 of the Act states that the statute's purpose is to develop new water supplies "in order to meet the economic and community

21-2 development needs of people and the instream flow needs of fish." RCW 90.90.005(1) (emphasis added).

The Conservation Groups are deeply concerned that the DPEIS fails to adequately explain the link established in the Act itself between the program's water supply development components and the need for additional water. The failure to link supply with need manifests throughout the DPEIS in an overemphasis on the legislative directive to "aggressively pursue" supplies; the Act says nothing about the extent to which new supplies are required. The lack of linkage between supply and need in the DPEIS is likely to mislead stakeholders regarding the Act's mandate and the nature of the program. It is imperative that Ecology clearly and accurately define its responsibilities at the outset.

To remedy this flaw, Ecology should revise the relevant portions of the DPEIS (e.g., pp. 2-1, 2-2) to clearly state that the aggressive pursuit of new supplies will occur only in the context of meeting water needs that are in the public interest. In addition, Ecology should explain in the final PEIS the specific steps it will take to determine "need" and how it will determine whether supplying water to meet the need is in the public interest. Clearly, the long-term supply and demand forecasts required by the Act will be helpful, but they alone will not be sufficient because they do not answer the question of whether meeting the demand is in the public interest. For the same reason, it is inappropriate to use water right applications alone as the measure of needed supply.

21-3 Accordingly, the program must include a means for timely determination of whether a proposed water use for which supply would be developed is in the public interest; it is not enough that the proposed use be a legally recognized beneficial use. Indeed, the Washington State Supreme Court has stated plainly that the public interest is not always served through diversionary uses such as irrigation, and that sometimes retaining water instream better serves the public interest. *Dept. of Ecology v. U.S. Bureau of Reclamation*, 188 Wash. 2d 761, 772-73 (Wash. 1992). Specific criteria for determining whether a proposed use is in the public interest should also be established to ensure consistency and transparency in agency decision-making.

Ecology's draft supply and demand forecast illustrates the importance of this step. Currently pending before Ecology are requests for new agricultural water rights totaling 211,323 acre-feet, and some interest groups are advocating building out the Columbia Basin Project, which would irrigate an additional 400,000 acres. Draft Supply and Demand Forecast at ES-12-13. However, the initial modeling conducted by Washington State University indicates that water demand for irrigated agriculture is likely to be stable or decline over the next 20 years. *Id.* Moreover, the most robust economic study to date evaluating the likely impact of significantly expanding irrigated agriculture along the mainstem Columbia indicates that doing so would have a negative impact on farming communities and Washington State. DPEIS at 3-71.

In light of this information, it clearly would not be in the public interest for Ecology to pursue new water supplies to enable build out of the Columbia Basin Project or to add significant amounts of new irrigated acreage in the area. The mere fact that agriculture is

21-3 a recognized beneficial use does not mean that providing more water to expand crop production under such circumstances is in the public interest; the opposite is likely true. Thus, Ecology needs to establish a transparent and credible process in this program for making public interest determinations prior to spending millions of taxpayer dollars to increase supply. This is particularly important in the case of expensive capital projects, such as new surface storage facilities. The DPEIS is silent on this fundamental aspect of the program, and this silence impedes the ability of stakeholders to ensure that development and implementation of the program is consistent with the Act and other applicable laws and policies.

Columbia River Mainstem Water Resources Information System

21-4 Chapter 2, which describes the Columbia River Water Management components, omits a key component: development of a water resources information system to enable Ecology to effectively manage water based on informed decisions. The legislature specifically directed Ecology to develop an information system in Section 6 of the Act that "provides the information necessary for effective mainstem water resource planning and management." Section 6 identifies some, but not all, of the information required to effectively manage Columbia River water. The final PEIS should contain a description of the water resources information system Ecology is developing, including the types of information that Ecology believes are necessary for effective management, a development timeline, and an explanation of how Ecology intends to use this information system in conjunction with other program components to achieve program goals.

Socioeconomic Analysis

21-5 The Conservation Groups appreciate Ecology's inclusion of highly relevant socioeconomic information in the DPEIS. Understanding the socioeconomic context in which the Act is being implemented is absolutely essential to the program's success and ensuring that any investments made are in the public interest.

21-6 The socioeconomic sections of the DPEIS need to be revised substantially to accurately reflect the relevant economic information that has been developed to date. In particular, the DPEIS leaves the reader with the impression that the estimated monetary values for irrigated crops estimated by Huppert et al. are valid when considered at the local level, and that the monetary values estimated by Williams and Capps are valid only when looked at from a statewide or regional perspective. (DPEIS at 3-71). This is erroneous.

21-7 An admitted omission in the Huppert et al. analysis is the fact that it did not account for price changes that would be caused by increasing the quantity of crops that would be grown on new irrigated acreage. (Huppert et al. at 22-25). The assumption in the Huppert et al. report that marginal changes in monetary value will equal current averages is not realistic under basic economic principles, and yet it is portrayed as such in the DPEIS. Thus, the marginal crop values estimated by Huppert et al. are not accurate at any level -- local, state or regional. The DPEIS should be revised accordingly.

21-8 This major flaw in the Huppert et al. study, and Ecology's failure to acknowledge it, ripples through the socioeconomic discussion. For example, Table 3-22 estimates changes in statewide employment related to diverting one million acre-feet of water for out-of-stream use, and the estimate of large increases in agricultural employment is based on the erroneous estimates of crop value discussed above. Again, this leaves the reader with the impression that the Huppert et al. estimates are valid and that increasing irrigated acreage for crop production along the Columbia will have major positive effects for the local economy, which is not accurate, as pointed out in the Williams and Capps and Griffin reports:

Substantial revisions of the socioeconomic section (pp. 3-66 – 3-76) are necessary to accurately reflect the best economic information available and explain its relevance to implementing the program. In particular, it should state unequivocally that the Huppert et al. study's assumptions about the value of crops that would be grown on new irrigated acreage are unrealistic, and that the value estimates in the Williams and Capps report are based on a market assessment and represent the most accurate information available to Ecology. The final PEIS should then discuss the likely economic impact on specific economic issues (e.g., value of goods and services, jobs and income, etc.) based on the Williams and Capps estimates. If Ecology does not do this, it must explain the rationale for choosing different values.

21-9 Not surprisingly, the flaws in the general discussion of socioeconomic issues and information in chapter 3 of the DPEIS lead to inaccuracies in the impact analysis in chapter 4. In particular, the discussion of long-term impacts of new storage on the agricultural sector suffers from the fatal flaws in the Huppert et al. study identified above. The statement in the DPEIS that "[r]ecent studies of water-related economic issues in the Columbia River basin have reached different conclusions, reflecting different assumptions about how households, farms, communities, businesses, and the state as a whole would respond to a change in the management of the area's water supplies" (p. 4-19) misleadingly implies that the assumptions made in the Huppert report are reasonable when they are not -- a fact admitted by the Huppert study team. (Huppert et al. at 23-24).

This is not a situation in which different economists conducted the same analysis and reached different conclusions; Williams and Capps conducted the essential market analysis that Huppert et al. admittedly did not do and that they acknowledged was a major shortcoming in their report. The entire discussion of likely long-term impacts on the agricultural sector that follows the above-referenced quote on pages 4-19 – 4-21 is flawed because it implies that the Huppert et al. estimates are valid. This major shortcoming of the DPEIS must be rectified in the final PEIS.

21-10 Lastly, the summary Economic Review section (1.3.1.4) should be substantially revised to expressly identify the shortcomings in the Huppert et al. study and to present the findings in the Williams and Capps study, which are not mentioned. In particular, the final PEIS should clearly state that the Williams and Capps study included a critical market analysis that the Huppert et al. study did not include, and that it shows a large

21-10 negative economic impact would be caused by a substantial expansion of irrigated agriculture along the Columbia River.

Responses to Policy Issues Raised in Chapter 6

6.2 *Ecology's role with respect to development of storage*

The DPEIS proposes two policy options that would define Ecology's approach to the development of new water storage facilities: (1) review projects only as proposed by applicants; or (2) aggressively pursue storage options. The Conservation Groups submit that the policy choice presented is based on an inaccurate interpretation of the Act by Ecology. As discussed at length previously in these comments, the Act does not, contrary to the statements on page 6-2 of the DPEIS, direct Ecology to aggressively pursue storage options. Rather, it directs Ecology to aggressively pursue new *water supplies* using various tools, including storage and conservation. RCW 90.90.005.

21-11 In light of the unambiguous statutory language, it is not appropriate for Ecology to elevate one particular water supply tool above others. Storage should be considered by Ecology only after there has been a demonstrated water supply need that serves the public interest, and only as one of the options available to meet the need. In fact, the Act expressly states that new storage facilities should only be pursued after a thorough analysis of alternative supply tools and their relative costs and benefits, RCW 90.90.010(3), indicating that storage options should be rigorously scrutinized relative to other supply tools. The final PEIS should be revised to remove this policy option from consideration. Ecology should consider storage options only as necessary to meet a demonstrated need, and must evaluate storage relative to other water supply alternatives as directed by the Act.

6.2.1 *Calculating net water savings from conservation*

21-12 Ecology proposes that it will consider *any* conservation project that meets the requirements of the Act and the Trust Program, including projects that were implemented prior to July 1, 2006 but are not currently managed within the Trust program. (DPEIS 6-2). This sentence needs additional clarification as to its intent. Our concern is that it suggests that projects already in place and already funded may be potentially considered for funding by the Columbia River Act. It may also be helpful to clearly state that the Trust Water Rights Program only allows for inclusion of water beneficially used within the previous five-year period.

21-13 Two alternatives have been proposed for calculating "net water savings": use of Ecology's Guidance-1210 methodology or the development of new methodologies that incorporate scientific evidence on the benefits of the new water savings to instream flows. (DPEIS 6-2). While Guidance-1210 may provide certainty to Ecology and some project proponents in quantifying the consumptive use portion of a water right, we support efforts by Ecology and others to use additional proven methodologies that provide credible evidence of "wet water".

We anticipate that there will be a diversity of projects that applicants will be proposing for funding within the program. There may not be a single standard method to calculate the water savings that meets the complexity of the different projects. The acquisition of water rights is a good example of the types of projects where site-specific data is the only means of truly analyzing how much "wet water" may be available for instream flow and also determining the site specific locations of where and when the water is available instream.

21-13 We recommend that any changes by Ecology to existing methodologies be promulgated through rule-making. This will ensure sufficient public process in validation and acceptance of new methodologies. Incorporating new standards and methodologies will also require additional education and training of project applicants and Ecology staff. This will ensure consistency within regional staff while providing additional certainty to project proponents and water right owners that may diminish concerns of different interpretations for calculating net water savings.

Finally, the Conservation Groups would note that instream flow protection and restoration and the issuance of new water rights are inextricably linked in the Act. The ability to identify instream flow benefits is a key factor in quantifying "new" water to allow for water rights and is a key component to successful implement of the Act.

6.2.2 *Funding criteria for conservation projects*

21-14 The Columbia River Management Act, as noted elsewhere in our comments, is designed to address the demonstrated water needs of both people and fish. At present, the need for additional instream flow in the Columbia and Snake rivers – particularly during summer months – is well documented, as is the need for additional water in many of the tributaries in the basin.¹ Further, as Ecology observes, segregating conservation funds to strictly support out-of-stream uses does not comport with the broader aims of the legislation.² Were all of the water placed into trust simply used as mitigation to offset new permits, the stated intent of the Act to bolster instream flows throughout the basin would be largely frustrated. While Ecology instead appears to favor a one-third / two-third split that mimics the water division for storage projects, this would seem to be simply a division of convenience based on the perceived discretion of Ecology.

¹ The Conservation Groups also note that while Section 4 of the Act emphasizes the months of July and August for the Columbia River and April through August for the Snake River, Ecology need not consider only those months when weighing the impacts to instream flows and salmon survival from additional withdrawals. Documentation exists to support the fact that there are impaired flows at other times of the year, and it should be noted that high flows are also necessary for well-functioning river and estuary systems.

² As noted in comments submitted by the Conservation Groups on Ecology's Draft Legislative Report (dated Nov. 8, 2006) and as acknowledged by Ecology on page 6-4, the one-third funding encompasses more than simply conservation efforts. However, the question posed in 6.2.2 is framed in terms of "conservation," and we will direct our comments to that point.

The Conservation Groups instead support a policy establishing that water placed into the Trust Water Rights Program should generally remain permanently instream. Indeed, the language of the Act specifically exempts users in the Columbia Basin from the requirement to place water into trust if "directed to" reducing groundwater usage in the Odessa sub-area, lending credence to the interpretation that trust water should otherwise bolster instream flows. The Conservation Groups believe that significant savings are currently available through the efficient use of water that would eliminate perceived "needs" and would relieve the pressure to transfer water in and out of the Trust program, forcing Ecology into an ongoing role as water broker for the basin. As available water becomes scarcer in the state, parties should have an incentive to maximize the use of existing supplies.

Should Ecology determine that some ratio is required in order to efficiently administer the non-storage fund and achieve the purposes of the Act, the Conservation Groups would advocate for a two-thirds / one-third split in favor of instream flows. We believe that such an allocation is in the best interest of the state for several reasons. First, the Act's allocation of new water supplies obtained through new storage benefits out-of-stream needs at a 2/3 to 1/3 ratio. Thus, to ensure a more equitable overall allocation between instream and out-of-stream needs, instream needs should receive a larger percentage of water obtained through conservation and other water supply tools besides storage.³

Second, the fact that some public funds are available under the Act to mitigate for out-of-stream uses where private parties are the primary beneficiaries constitutes a significant concession by the conservation group negotiators who developed the bill. A strong argument could be made that the cost of obtaining mitigation water for out-of-stream uses should be borne by the water right holders, not the public. Accordingly, the majority of the public funding dedicated to conservation and other non-storage supply tools should be used to acquire water that will serve the general public, namely instream flow enhancement. This approach is consistent with Ecology's irrigation efficiency program, which requires that a portion of the water saved by the conservation measure or irrigation efficiency be placed as a purchase or a lease in the trust water rights program to enhance instream flows. The irrigation efficiency program requires that the proportion of saved water placed in the trust water rights program be equal to the percentage of the public investment in the conservation measure or irrigation efficiency.⁴

We encourage Ecology to give significant weight to conservation and other non-storage water supply tools that have substantial instream flow benefits. This will lead, appropriately, to funding projects that do more than move water short distances between out-of-stream users. The project funding criteria should make this a paramount consideration. Ecology should also implement conservation and other non-storage water supply projects that will provide benefits to tributary rivers and streams regardless of whether additional water is, as a result, added to the Columbia River for out-of-stream use.

³ It should be noted that the non-storage allocation is half the size of the storage allocation.

⁴ Budget Proviso language, Sec. 316, Department of Ecology, Water Irrigation Efficiencies (01-H-010)

21-15 [Lastly, we support the involvement of the Conservation Commission, Conservation Districts and groups like Washington Rivers Conservancy in designing, planning and implementing projects with water right holders. Their expertise in working with landowners and water right holders on irrigation efficiency projects and acquisition is an important component of getting projects completed on the ground in a timely manner.

6.2.3 Defining acquisition and transfer

Two policy alternatives have been proposed for defining "acquisition and transfer" of water within the context of Section 2 of the Act, which prohibits Ecology from expending funds from the Columbia River Water Supply Account that will result in "water acquisition or transfers from one water resource inventory area to another." RCW 90.90.010(2)(a). Under the first alternative, "acquisition and transfer" would be defined as water obtained from any non-storage project. Under the second alternative, only water obtained from the direct purchase of a water right would fall within the definition. (DPEIS 6-7).

21-16 [The Conservation Groups strongly encourage Ecology to adopt the narrower interpretation and limit the application of the prohibition to only the direct purchase of water rights.⁵ There are several compelling reasons that the narrower interpretation should be adopted. First, a broad interpretation would substantially limit the number of tools Ecology has to effectuate the primary intent of the legislation, which is to provide new water to meet out-of-stream and instream water needs. Second, the Conservation Groups understand that the concern this language was intended to address was the fear that large water right purchases or transfers would be used to take water from one geographic area and make it available for extraction in a downstream WRIA in a manner that would harm limit economic activity in the WRIA of origin. This problem would not materialize if more efficient water use in the WRIA of origin obtained through a conservation project maintains economic activity while at the same time makes water available for both instream flow enhancement and new out-of-stream use outside the WRIA.

21-17 [There is another policy issue related to this language that is implied but not expressly identified in the DPEIS but nonetheless must be resolved; namely, whether funds from the account can be used for the purpose of addressing instream flow needs in the WRIA even though the water could subsequently be withdrawn from the Columbia or Snake river mainstem in a different WRIA for an out-of-stream use. The Conservation Groups strongly encourage Ecology to interpret the prohibition narrowly in a manner that does not preclude the use of funds from the account for the direct purchase of water rights in a manner that would benefit the mainstem of the Columbia and Snake rivers during periods of demonstrated need (i.e., during the spring and summer salmon and steelhead migration

⁵ The fact that the definition of "acquisition and transfer" we support and encourage Ecology to adopt is much narrower than the definition that appears in the Trust Water Rights statute is irrelevant. There is no conflict if the terms are defined differently in the two statutes and thus no need for consistency.

21-17 seasons) within the WRIA of origin. In other words, as long as a direct purchase would provide a substantial instream flow benefit (a legally recognized beneficial use) within the WRIA of origin, the use of account funds should be permitted.

6.2.4 Conditioning water rights on instream flows

The DPEIS proposes two alternatives for processing water rights: 1) apply instream flow water rights created by the Columbia River instream flow rule to new permits or changes of season of use that authorize use outside the season where the conserved water or acquired water right was beneficially used; or 2) waive instream flow water rights created by the Columbia instream flow rule where new permits or transfers shift consumptive demand away from critical periods and benefit aquatic species.

21-18 We support alternative #2 as long as the withdrawals authorized by the new permit or transfer of an existing permit do not result in flow depletions during the period of April through September in both the Columbia and Snake rivers, which is implied in the DPEIS when it describes shifting demand to the October through March period. It bears emphasis that federal flow targets have been established for salmonids listed under the Endangered Species Act in both rivers from April through August, and that September is typically a low-water month when listed and unlisted fish are still migrating. It would be inappropriate to shift demand to months other than July and August in the Columbia that are still within the April through September period, as this would negatively impact fish. In addition, it should be made clear that this provision would apply only to mainstem flows.

21-19 In light of the limited information provided in the DPEIS, the Conservation Groups do not support a one-time determination through rule-making that shifting water use from July and August to October through March will always serve overriding considerations of the public interest (OCPI) justifying waiver of the Columbia instream flow rule. Determinations of OCPI should be made after careful analysis of all relevant factors, and we believe that such a determination requires an OCPI finding on a case-by-case basis. We recommend that this issue be discussed by the Policy Advisory Group prior to issuance of the final PEIS.

6.2.5 Initiating voluntary regional agreements

Ecology has proposed two alternatives regarding the aggressiveness with which the agency will pursue Voluntary Regional Agreements (VRAs): 1) process VRAs as they are proposed; and 2) aggressively pursue VRAs. (DPEIS 6-8, 9).

21-20 We support alternative #1, process VRAs as they are proposed. VRAs should be approved only if there is a demonstrated need for new water rights consistent with the public interest. Ecology should not use its limited resources to establish VRAs absent a justified request that a VRA be created to provide water for a need that serves the public interest.

6.2.6 Processing voluntary regional agreements

Three alternatives have been identified for processing VRAs: processing applications according to the Hillis Rule, amending the Hillis Rule to give a priority to processing applications to convert interruptible water rights, and amending the Hillis Rule to give priority processing for new water rights from VRAs. (DPEIS 6-12).

21-21 We recommend adoption of the first alternative, under which all applications would be processed under the Hillis Rule without preferential treatment for applications under a VRA. The Hillis Rule safeguards not only the public interest but also provides certainty and fairness to all water right applicants. There is no language in the Columbia River Act to suggest that the legislature intended that VRAs were to receive any priority processing or special treatment, or that they should be acted on independently of other new water rights.

6.2.7 Defining "no negative impact" to instream flows of the Columbia and Snake rivers

The DPEIS notes that the Act allows no negative impact to river flows during July and August on the Columbia River and from April through August on the Snake River as a result of a VRA. Four possible ways to measure a net reduction in instream flow are proposed: 1) same pool and downstream; 2) same major reach; 3) same pool but not downstream; and 4) same pool, but only downstream of the point of net water savings.

21-22 We recommend a different alternative than the four presented, which is largely a blend of alternatives #1 and #4. As a general rule, new withdrawals should not be authorized above the point at which the conserved water enters the mainstem river for conservation projects that supply water directly to the mainstem. Thus, withdrawals above the point of water savings, even if in the same pool, should not be permitted (consistent with alternative #4). An exception should be recognized if the water savings is achieved in a tributary stream where there are significant tributary benefits from the water savings as well as the mainstem. In such a case, Ecology should be able to permit withdrawals from the mainstem within the same pool that the tributary feeds in recognition of the tributary benefit provided by the water savings (consistent with alternative #1), but not in a riverine reach such as the Hanford Reach or tailwater areas with riverine conditions.

The Conservation Groups are open to Ecology allowing withdrawals anywhere downstream of the point at which water savings is obtained in the mainstem provided that such savings would still exist at the point of diversion under the new right. This determination would need to account for evaporation and other factors that might diminish the amount of saved water available at the point of the new diversion.

6.2.8 Defining the main channel and one-mile zone

21-23 Ecology is seeking input on how it interprets the language in the Columbia River Management Act defining the mainstems of the Columbia and Snake rivers to include

21-23 "all water ... within the ordinary high water mark [OHWM] of the main channel ..." and "all ground water within one mile of the [OHWM]." The interpretation will apply to water rights issued on the mainstem, how Ecology defines "no negative impact" on instream flows of the mainstem, and to the agency's development of a water resource inventory. The policy choice presented in the DPEIS is whether to include backwater areas (i.e., areas backed up by dams at tributary mouths and a one-mile groundwater zone from those tributary backwater areas) or to exclude tributary backwater areas.

We recommend including tributary mouths backed up by dams in the mainstem definition, as dams have essentially turned these river mouths into part of the mainstem river. This would better ensure that there is no negative impact to mainstem flows from new water rights, whether they withdraw water directly from the mainstem river or from ground water that is within one mile of the OHWM. And, as the DPEIS notes, including backwater areas "provides a larger inventory of water rights, and could improve Ecology's ability to plan for and manage the Columbia River water resources." (DPEIS 6-17).

6.2.9 Coordinating VRA mitigation and processing new water rights⁶

21-24 The Conservation Groups believe that the existing statutory scheme for processing applications should remain in place. Parties – VRA and non-VRA alike – should not be encouraged to prematurely submit applications without mitigation water having been secured. To allow for "skipping" would only create an incentive to claim a more advantageous position in the queue without having fulfilled the requirement for real mitigation water. Moreover, allowing Ecology to skip applications would add to the permitting backlog while increasing the political pressure on the state to expend public money on mitigation.

Regardless, the Department of Ecology absolutely should not process applications and issue any permits without real water having been secured to offset withdrawals, as is suggested in passing on page 6-18. Ecology must avoid needlessly creating additional interruptible rights – even if purportedly only temporary.

6.2.10 Coordinating VRA and non-VRA processing

21-25 Three alternatives have been proposed for processing VRA and non-VRA applications: staying with the existing priority system by grouping together all applications within a one-mile corridor on the Columbia River, grouping the applications by region or grouping the applications by WRIA. (DPEIS 6-19). We support the third option of grouping all applications together in individual WRAs, as we believe this will provide a more comprehensive oversight and accounting of the 1-1 mitigation of new water rights including any out-of-WRIA transfers.

⁶ Ecology asserts that it intends to "aggressively pursue funding of storage and conservation projects to make mitigation water available" for VRAs. Again, the legislation indicates that new water supplies are for documented needs, and as Ecology has acknowledged, any new rights must be in the public interest. The simple existence of VRAs should not be considered sufficient to justify the expenditure of public funds.

6.2.11 Funding projects associated with a VRA

21-26 The Conservation Groups believe that to the extent that conservation money is used to provide water for mitigation, Ecology need not distinguish between VRA and non-VRA applicants.

6.2.12 Inclusion of exempt wells in water use inventory

21-27 The Conservation Groups strongly support the inclusion of exempt wells in the information system to be developed by Ecology. As stated in the Act, the overarching goal is to devise a system to "better understand current water use and instream flows" in the Columbia "that provides the information necessary for effective mainstem water resource planning and management" RCW 90.90.040(1). To ignore exempt wells would compromise the overall effort and read restrictive language into the Act that does not exist.

• Out-of-stream water rights and mitigation water under VRAs

21-28 Though not specifically raised in the DPEIS, the Conservation Groups wish to comment on another critical policy issue that should be addressed in the final PEIS: the relationship between water rights issued pursuant to VRAs and the mitigation water that must be secured to offset instream flow impacts resulting from the exercise of those water rights. Section 5 of the Act requires that any consumptive water rights issued pursuant to VRAs not reduce instream flow in the Columbia and Snake rivers during certain periods of the year. RCW 90.90.030(2).

To comply with this mandate, mitigation water secured to offset new withdrawals must be available in a quantity equal to the amount of the withdrawal for as long as the new consumptive water right is exercised. Thus, either permanent sources of mitigation water must be secured to offset new, permanent water rights, or alternatively, new water rights must be conditioned such that Ecology can limit the exercise of the water right to the quantity of mitigation water available when there is insufficient mitigation water to fully offset the withdrawal. Should Ecology elect not to condition new water rights this way, it cannot rely on short-term water leases or other non-permanent sources of mitigation water to issue new, permanent water rights. This is an issue that should be addressed in the final PEIS.

Conclusion

21-29 The Conservation Groups appreciate the opportunity to comment on the DPEIS, and we offer our comments to assist Ecology in developing a final PEIS that is consistent with the Act and will guide implementation of the Columbia Water Management Program in a manner that best serves the interest of Washington's citizens. We are concerned, however, that there is still significant ambiguity regarding key aspects of the Program (e.g., VRAs) and that interested organizations and individuals including ourselves have been asked to comment on all aspects of the Program in a short time period. Under such circumstances, Ecology should continue to solicit input from the interested parties through the Policy Advisory Group over the next several months so that as many issues as possible can be raised and vetted prior to issuance of the final PEIS.

Thank you for your consideration.

Sincerely,



Robert J. Masonis
Senior Director, American Rivers NW Region


FDR

Lisa Pelly
Executive Director, WRC



Michael Mayer
Legal Director, WEC

Cc: Gerry O'Keefe
Dan Silver

Comment Letter No. 21 – American Rivers, Washington Environmental Council, Washington Rivers Conservancy

- 21-1. Comment noted.
- 21-2. Comment noted.
- 21-3. Comment noted. Ecology’s preferred policy alternative concerning interpretation of the legislative requirement to “aggressively pursue” new water supplies is contained in Sections 2.3.1 and 6.1.2.
- 21-4. Information on the Water Resources Information System has been added to Section 2.1.2.6.
- 21-5. Comment noted.
- 21-6. Comment noted. Sections 3.2.2 Columbia Basin Specifics and 4.1.1.1 Socioeconomics– Long-Term Impacts have been amended to describe more clearly the relationship between the studies by Huppert et al. (2004) and Williams and Capps, Jr. (2005). The conclusions of both studies have been integrated into the Final EIS to show how their results complement each other and to reflect the uncertainty of determining long-term impacts.
- 21-7. Comment noted. See the response to Comment 21-6.
- 21-8. Comment noted. See the response to your Comment 21-6.
- 21-9. Comment noted. See the response to your Comment 21-6.
- 21-10. Comment noted. See the response to your Comment 21-6.
- 21-11. See the response to Comment 12-1.
- 21-12. See the response to Comment 9-8. Ecology would acquire net water savings through the funding of eligible projects or management practices that yield trust water rights. In some cases, water rights might not have been fully used on July 1, 2006 but the rights would be valid unless relinquished or abandoned. The program could include securing agreements to alter future use of the right or prevent resumption of that use, not unlike the purchase of a development right. See the revised Section 6.2.2 in the Final EIS. Acquisitions to the Trust Water Right Program are either subject to RCW 90.03.380 or are exempted from it. If subject to RCW 90.03.380, the right transferred to the Trust Program is subject to an extent and validity review and is limited to the quantities determined to be valid. If the acquisition is exempt from RCW 90.03.380, then the Trust Program is instead limited to the most recent five-years use.
- 21-13. See the response to Comment 9-8.
- 21-14. See the response to Comment 9-9.

- 21-15. Ecology is organizing a Technical Advisory Group (TAG) for the purpose of recommending project evaluation criteria. It will also review projects against those criteria.
- 21-16. See the response to Comment 9-10.
- 21-17. Ecology interprets RCW 90.90 to mean that acquisitions within a WRIA could be used for instream flows or out-of-stream use on the mainstem Columbia within the WRIA. It could be used for instream flow at any point downstream from the WRIA of origin. If legislative approval is obtained, the water could be withdrawn downstream outside the WRIA of origin.
- 21-18. See the response to Comment 9-11.
- 21-19. See the response to Comment 12-1.
- 21-20. See the response to Comment 9-12.
- 21-21. See the response to Comment 9-13.
- 21-22. See the response to Comment 9-14.
- 21-23. See the response to Comment 9-15.
- 21-24. See the response to Comments 9-13 and 9-16.
- 21-25. See the response to Comment 9-17.
- 21-26. See the response to Comment 9-18.
- 21-27. See the response to Comment 9-19.
- 21-28. See the response to your Comment 21-12 and Comment 9-9.
- 21-29. Comment noted.



CLEAN, FLOWING WATERS FOR WASHINGTON

The Center for Environmental Law & Policy

November 22, 2006

Derek L. Sandison, Regional Director
 Washington Department of Ecology
 Central Regional Office
 15 W. Yakima Ave., Suite 200
 Yakima, WA 98902-3452

Re: Comments on Draft Programmatic EIS – Columbia River Water Management Program¹

Dear Mr. Sandison:

The Center for Environmental Law & Policy (“CELFP”) is a non-profit membership organization working to defend and develop ecologically and socially responsible water laws and policies. CELFP believes that informed, responsible water management is the only way to ensure a legacy of clean, flowing waters for Washington. CELFP has been involved with the Columbia River Management Plan since its inception and our research into and involvement with Columbia River issues dates back even further. CELFP is the only environmental organization that has appealed Columbia River water right permitting decisions, and CELFP is currently a party to a continuing settlement agreement governing future allocations of river water to the Quad Cities of Kennewick, Richland, West Richland, and Pasco. (PCHB 02-216)

The State of Washington is at a crossroad in terms of water management. Faced with climate change and population increases it is crucial that the state engage in deliberate, informed, and thoughtful water management planning now, in order to prevent water conflicts and disastrous impacts later. Policy decisions based on incomplete or erroneous information will place Washington’s waters in further jeopardy and shift the burden to future generations. CELFP has previously expressed concerns about the quality and reliability of the 2006 Water Supply Inventory and Long-Term Water Supply and Demand Report (Inventory) in a letter dated 11/1/2006 (incorporated here by reference), and we have similar concerns about the accuracy and adequacy of the draft EIS.

I. GENERAL COMMENTS:

- ✓ Critical terms such as “conservation”, “no negative impact”, and “Voluntary Regional Agreement” must first be defined by rule-making, and then applied consistently before any analysis in the draft EIS or Inventory report can be meaningful.

¹ The Center for Water Advocacy, www.wateradvocacy.org, P.O. Box 583, Clifton, Colorado, 81520 joins in the submission of these comments. The Center for Water Advocacy (CWA) is a non-profit public interest entity dedicated to protecting water resources in the Northwest. CWA conducts legal and scientific research, analysis, policy and litigation in its efforts to protect and restore water quantity, water quality and water rights for the health of the watershed ecosystem, preservation of cultural identity, and the benefit of the public.



Center for Environmental Law & Policy

November 22, 2006

- 22-4 [✓ The draft EIS fails to adequately address the statute’s dual purpose of benefiting both instream and out of stream uses.
- 22-5 [✓ The consideration of the CSRIA Voluntary Regional Agreement is premature and inappropriate within this draft EIS.
- 22-6 [✓ Adoption of the Final EIS for Watershed Planning under Chapter 90.82 RCW, 2003 does not compensate for the deficiencies in this draft EIS.
- 22-7 [✓ The historical and background information listed in Chapter 1.3 contains numerous inaccuracies and omissions as to the background of litigation surrounding Ecology’s issuance of water rights from 2000 to 2003, and should be corrected.²

II. COMMENTS SPECIFIC TO CHAPTER 6.0 – POLICY DISCUSSION

22-8 [Section 6.1: Description and analysis of policy alternatives for implementing the management program.
 This section admits that the impacts of policy alternatives on each element of the environment are not being evaluated here. This statement sums up a major flaw of the entire EIS: insufficient identification and analysis of various potential alternatives and the environmental impacts of those alternatives. Conspicuously absent, for example, are discussions of the impacts to endangered species, and the ESA ramifications of various policy alternatives. ESA implications are especially crucial factors in analyzing how to apply the arbitrary “no negative impact in July and August” standard, and the environmental impacts of diverting water from instream flows in order to fill off-channel storage reservoirs.

Section 6.2 – Selecting storage projects

22-9 [The section (and, indeed, the entire EIS) improperly presupposes that storage creates “new water” that will serve the dual purposes of the statute: that is, for instream and out of stream benefits. This is a major flaw, in that the EIS fails to examine whether there is any conceivable storage management regime that could result in benefits to instream aquatic values. The EIS offers two alternatives under this section: Review projects only as proposed by applicants, or Aggressively pursue storage options. Given that the EIS does not analyze how or whether “new” water supplies can be obtained through storage, the only alternative in the public interest at this time is the first: Review projects only as proposed by applicants. Ecology should not pursue projects itself without first developing data and evidence that storage can indeed equate to a “new water supply”. The initial burden of providing this evidence should be on the proponent, not the public and taxpayers.

Section 6.2.1 Calculating net water savings

22-10 [There is a serious legal flaw here in stating that Ecology will consider any conservation project implemented before July 1, 2006 (the date the CRWMP law became effective). If water was conserved before 7/1/2006, it should be viewed as already “in stream” and as part of the baseline from which to prospectively calculate benefits. The preferable alternative: Develop a rule for calculating net water savings.

² Among other things, this section falsely implies that the \$10 an acre foot scheme” resulting from a settlement between the CSRIA and Ecology resulted in the issuance of water right permits. However, five such water right decisions were appealed by Tribes, and in 2005 the Washington State Court of Appeals ultimately ruled against Ecology and the water right applicants. The applications were remanded to Ecology. The permits have never been issued. This section also fails to list the PCHB decision in *CELFP vs. Ecology and the Quad Cities*, PCHB 02-216, which resulted in the cities receiving a very large water right (178 cfs & 96,619 acre feet/year) in return for their agreement to, among other things, exercise water conservation measures and provide mitigation for 168 cfs of the allotted amount.

22-11 Section 6.2.2 – Funding criteria for conservation projects. Here, the second listed alternative is the best one. Funding projects to benefit only instream flows and water quality is the only choice that meets the intent of the statute, especially given the amount of water to be diverted out of the mainstem into the Odessa subarea, and the arbitrary and unbalanced requirement to allocate 2/3 of “new” water from new storage facilities to out of stream uses. Rule-making is advised to develop criteria for funding conservation projects.

22-12 6.2.3 Defining Acquisition and Transfer
Acquisition can only be interpreted to mean direct, permanent purchase of water rights. Anything less, such as leases, temporary contracts for drawing down reservoirs, and conservation savings are indefinite in duration and scope. Issuing permanent out-of-stream consumptive water rights based upon time-limited “mitigation” does not meet the test of adequate mitigation. Transfers of ownership can already occur under existing statutes without Ecology intervention or involvement as part of the CRWMP; these provisions should not be modified as a result of the CRWMP.

22-13 Section 6.2.4 Conditioning Water Rights on Instream Flows
All of the analyses and alternatives under this section are flawed, and point out the greater deficiencies throughout the EIS. The 1980 instream flow rules must be upheld and not waived; nor should interruptibility or individual permit mitigation conditioned upon the FCRPS Bi-Op Target Flows (as in the 2003 Quad Cities permit S4-30976, giving them access to 178 cfs and 96,619 acre feet/year) be waived or changed as a result of the CRWMP. There are absolutely no facts or circumstances shown in the EIS or the Water-Supply and Demand Inventory Report to justify a consideration of OCPI — particularly given the dearth of evidence that there is likely to be any appreciable increased demand for municipal water supplies in the foreseeable future.

22-14 Section 6.2.5 – Initiating Voluntary Regional Agreements
Ecology does not have a legislative mandate to solicit VRA's. The first policy alternative is the only one that is reasonable. Why would Ecology even consider “aggressively pursuing” VRA's? This presupposes that VRA's are more beneficial to the public interest than normal processing of water right applications under existing laws. It also improperly presupposes that VRA's will result in “new water supplies”. There is no showing anywhere in the EIS or elsewhere that this might be true.

22-15 Section 6.2.6 Processing VRA's
The section inaccurately implies that Policy 1021 re: processing water right applications for “nonconsumptive” projects is legally supportable and an accurate interpretation of Hillis and WAC 173-152-020. Another questionable and unsubstantiated statement is that “New water can be obtained from a new water right or change of an existing right.” Nowhere does the EIS discuss or analyze how this feat can be accomplished. CELP can see no reason to amend the Hillis Rule for purposes of processing water right applications pursuant to VRA's. The first alternative listed (Process applications according to the Hillis Rule) should be the only one seriously pursued.

22-16 Section 6.2.7 – Defining “No Negative Impact”
The entire discussion of defining “no negative impact” should await rule-making. This is an extremely controversial and complex concept, and will likely be the subject of litigation. Alternative 4C-4, “Same Pool, but only downstream of the point of net water savings” is the only alternative that could be seriously considered as adequate.

22-17 Section 6.2.8 Defining the Main Channel and One-Mile Zone
The way Ecology has always defined this (as outlined in the second alternative) is the most appropriate way to approach this. Question: If the river course shifts over time, or shrinks or expands in width, does the one-mile boundary also change? CELP recommends that Ecology immediately assemble aerial photos and other data showing the parameters of the river on 7/1/2006 (the effective date of the statute) and use this information as the perpetual mapping baseline. If there were backwater areas on 7/1/2006, these should be considered as part of the mainstem “pools”.

22-18 Section 6.2.9 Coordinating VRA Mitigation and Processing New Water Rights
CELP lacks sufficient comprehension of the discussion or alternatives suggested to make a recommendation at this time. Further, CELP has no knowledge of the 1993 Quad Cities permit as mentioned on p. 6-18. Could this somehow be intending to refer to the 2003 Quad Cities permit S4-30976, based upon a 1991 water right application?

22-19 Section 6.2.10 and 6.2.11 – Coordinating VRA & Non-VRA processing, and Funding Projects Associated with a VRA
See below for additional discussion of why CELP believes that this EIS has inappropriately handled issues related to VRA's. As for funding issues and VRA's: Ecology should spend NO conservation or storage money to assist in providing mitigation water for VRA's that intend to cover out of stream water uses. The proponents of VRA's should provide their own mitigation water. Ecology's expenditures should be solely for providing water to improve instream flows for fish – the otherwise forgotten-in-this-EIS dual beneficiary of the supposedly balanced CRWMP.

22-20 Section 6.2.12 Inclusion of Exempt Wells in Water Use Inventory
YES! Metering and reporting of water use from exempt wells MUST be included in the information system in order to meet the intent of RCW 90.90.050(1).

III. COMMENTS TARGETED TOWARD SPECIFIC ISSUES

22-21 1. THE CONSIDERATION OF THE CSRIA'S APPLICATION FOR A VRA IS IMPROPERLY CONSIDERED WITHIN THE DRAFT EIS BECAUSE: (A) THERE IS NO MEANS FOR MEASURING A VRA'S INSTREAM FLOW IMPACTS, MAKING THE DATA UNACCEPTABLY INCOMPLETE UNDER SEPA; (B) PROCEEDING WITH THE EVALUATION OF A SPECIFIC PLAN FOR A VRA UNDER THIS GENERAL EIS IS IN VIOLATION OF THE GENERAL REQUIREMENTS OF AN EIS; (C) ECOLOGY'S ANSWER TO CELP'S ORIGINAL SCOPING COMMENTS REGARDING THIS EXACT CONCERN IS INAPPROPRIATE BECAUSE IT IS AN INCOMPLETE READING OF THE APPLICABLE WAC.

22-22 (a) There is no set means for measuring a VRA's impacts to instream flows making the “no negative impact” pre-requisite for approval of a specific plan impossible to determine.
In order for a VRA to be approved, it must have “no negative impact” on the Columbia River mainstem instream flows during July and August as a result of the new appropriations issued under the agreement. (April through August for the Snake River; pg. 2-13). A VRA also “may not impair or diminish a valid water right or a habitat conservation plan approved for purposes of compliance with the federal Endangered Species Act (ESA). (pg. 2-13). The EIS fails to demonstrate how the “no negative impact” requirement shall be met by VRA's in general because it does not propose a meaningful means for measuring water conserved through mitigation measures. The EIS states: “There is no existing policy on how or where to measure whether a withdrawal of water

22-22 pursuant to a VRA would result in a net reduction in stream flow." (pg. 2-18). How then can a specific proposal by the Columbia and Snake River Irrigators Association (CSRIA) for a VRA be evaluated when there is no existing policy in place for measuring the primary prerequisite for its approval—that it (1) have "no negative impact" on instream flows and (2) not impair or diminish other water rights or ESA habitat plans? The answer is that it cannot. A specific plan cannot be properly evaluated if no means are in place to measure whether the primary prerequisites for approval can actually being met.

22-23 Under SEPA WAC 197-11-080, this gap in data is unacceptably incomplete for consideration of a specific proposal such as the CSRIA VRA. Under this section, Ecology may only proceed without such vital information if the costs of obtaining it are exorbitant (WAC 197-11-080(3)(a)) or the means of gathering it are speculative or unknown (b). This is not the case here. Ecology has not proven that the costs would be exorbitant to find out how the impacts of VRA's will be measured to know if they have an impact on stream flows. Ecology has also not proven that the means of obtaining such information are speculative or unknown. There is actually evidence to the contrary on this point. Ecology does know how to obtain such information, it actually suggests four alternative means for acquiring it. (See pg. 6-14 to 6-16). Each of these alternatives has its flaws, but if Ecology has the capability to obtain the information needed to determine how and where to measure instream flow for VRA's, they should certainly do so before considering a specific request like that from the CSRIA. WAC 197-11-080(3)(b) actually mandates that they do so. This WAC section goes on to state that if Ecology does choose to proceed without the vital information, the agency "shall weigh the need for the action with the severity of possible adverse impacts which would occur if the agency were to decide to proceed in the face of uncertainty." Yet in this case if Ecology proceeds in the face of uncertainty - without an adequate or set means of measuring the impact to instream flows from the CSRIA VRA - it will most likely do so in violation of the statutory mandate of "no negative impact." The agency cannot know whether the entire concept of VRA's actually meets its requirements without first having a functioning measuring mechanism in place to meet the conditions for approval.

(b) Proceeding without the necessary information on how to measure the impact on instream flows from VRA's in general yet agreeing to evaluate a specific plan for a VRA is in violation of WAC 197-11-402(10).

22-24 Proceeding at this point in the planning process without having a set policy for how to measure whether VRA's would result in a net reduction of instream flow would violate WAC 197-11-402(10). This section of the regulation states the general requirements of an EIS and requires that "EIS's shall serve as the means of assessing the environmental impact of proposed agency action, rather than justifying decisions already made." Ecology has no means of measuring the effect of VRA's on instream flow, therefore it cannot assess the environmental impact on either instream flows, habitat for ESA species, or other vested water rights. By proceeding with the specific plan outlined in the early action CSRIA VRA without a means to know whether the conditions of (1) no negative impact and (2) no impairment to ESA habitat or vested water rights are met for the use of VRA's in general, suggests that Ecology has already decided to implement VRA's in any manner it chooses at the time, and that the inadequate "lip service" treatment given in the EIS will simply be used as an excuse to justify any future deal or decision that Ecology chooses to make on a VRA - regardless of how broad or how potentially damaging the environmental or policy ramifications may be. Critical data and critical definitions of terms are missing to meaningfully assess the environmental impact of VRA's. Proceeding without this information is a violation of both WAC 197-11-080 and WAC 197-11-402.

(c) Ecology's response to CELP's scoping comments on the VRA issue is an incomplete reading of WAC 197-11-055 because when read in its entirety the section supports CELP's argument that the consideration of the CSRIA VRA is inappropriate within this EIS.

22-25 Ecology's answer to CELP's earlier comment regarding the inappropriateness of considering the CSRIA VRA early action within this EIS is an incomplete reading of the WAC 197-11-055. Ecology justified its consideration of the specific plan CSRIA VRA by citing to WAC 197-11-055(1): "Integrating SEPA and agency activities. The SEPA process shall be integrated with agency activities at the earliest possible time to ensure that planning and decisions reflect environmental values, to avoid delays later in the process, and to seek to resolve potential problems." (See Appendix C; SEPA Comments). Ecology responded to CELP's concerns that the specific VRA for the Irrigators was premature by stating that this is an allowable integration of SEPA and agency activities. However, Ecology is failing to read the quoted regulatory section in its entirety. Section (2) of the regulation in question states:

Timing of review of proposals. 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. (Emphasis added).

(A) A proposal exists when an agency is presented with an application or has a goal and is actively preparing to make a decision on one or more alternative means of accomplishing that goal and the environmental effects can be meaningfully evaluated. (Emphasis in the original).

CELP's scoping comment about the inappropriateness of considering the early action VRA for the irrigators was a concern about timing in the review of proposals, so the entire regulatory section should be read to address CELP's concerns. These sections require that the "environmental impacts be reasonably identified" and "meaningfully evaluated" in order for a determination to be made. With the acknowledged gaps in data by Ecology as to the means for measuring the impacts of VRA's on instream flows, these regulatory sections are not satisfied. Ecology cannot cite to section (1) of the WAC and neglect section (2) when it clearly relates to CELP's concern. Proceeding with a specific proposal for the CSRIA VRA when the general pre-requisites for a VRA's approval cannot be measured in order to know its impact violates the regulatory section as a whole. Early incorporation does not mean that the impacts have been reasonably identified or meaningfully evaluated.

2. THE CONSIDERATION WITHIN THE EIS OF THE CSRIA EARLY ACTION VRA IS AN IMPROPER APPLICATION OF THE SEPA PHASING REQUIREMENT UNDER WAC 197-11-060(5).

22-26 The EIS seems to present itself as a phased review. (See pg. S.4 "Project Phasing and Schedule of Future Environmental Review") This section states that "[p]rojects will be evaluated as they are developed and ready for environmental review..." (pg. S-10). (See definition of "phased review" under SEPA WAC 197-11-060(5)). This WAC section also mandates under subpart (e) that "[w]hen a lead agency knows it is using phased review, it shall so state in its environmental document." Section S.4 of the EIS seems to suggest it is attempting to be characterized as a phased review. Assuming it is a phased review, this particular EIS does not satisfy the necessary components of the selected review process, because it is considering the specific project proposals (early actions) along side the broad and preliminary components of the plan. This is not the correct order of consideration for a phased review. A phased review is meant 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. Broader environmental documents may be followed by narrow documents..." WAC 197-11-060(5)(b). Phased review is appropriate when: "the sequence is from a nonproject document to document of narrower scope such as site specific analysis (see, for example WAC 197-11-443)" WAC 197-11-060(5)(c)(i). WAC 197-11-443(2)'s example of this states:

(2) 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." (emphasis added).

By proposing the specific early actions in this EIS, Ecology is not following the order for consideration of a phased review EIS. The purpose of the phased review is to consider the broad aspects of the projects first and then the specific projects within the findings of the broad, preliminary findings. In the case of the Columbia River EIS, Ecology is considering both the broad and specific proposals in the EIS simultaneously in violation of SEPA's phased review regulations.

3. THE INSTREAM FLOW REQUIREMENT OF THE DUAL GOALS OF PROVIDING IN-STREAM AND OUT-OF-STREAM USES FOR WATER IN THE COLUMBIA BASIN IS NOT MET BY THIS EIS.

The purpose of the Columbia River Water Management Act is to direct the Washington State Department of Ecology to "aggressively pursue the development of water supplies to benefit both instream and out-of-stream uses". (emphasis added). Despite the dual purpose of the plan, the Columbia River EIS does not provide a meaningful effort in meeting the instream flow component. While the means used to achieve benefits to out-of-stream uses such as irrigation are more clear, these means fail to simultaneously meet the goal of benefiting in-stream uses. The goal of providing for instream flow is not met for the following reasons:

1. Storage projects harm instream flows and this EIS only considers storage projects versus no storage projects. The means of satisfying the goal of supplying water to out-of-stream uses is being satisfied by the storage projects while at the same time failing to meet the goal of providing water for instream uses. It is not merely failing to meet the goal for instream use, it is actively working against it by the very nature of the means suggested: dams and reservoirs.
2. There is no showing that water collected in storage units can be of sufficient quality or managed in a manner to facilitate healthy fish populations; yet the EIS proceeds as if there is no doubt or disagreement that stored water later released in any quality or quantity will meet the statute's mandate of improving instream conditions for aquatic life.
3. Water allocated by Ecology from the Water Trust Fund is not earmarked toward instream flows but instead toward irrigation and other out of stream beneficial uses. This allocation scheme fails to address the goal for providing water for improved instream flow.
4. It only serves an out-of-stream goal to exempt from the Trust Program any water savings achieved via conservation in the Columbia Basin Project, so long as that water is used in the Odessa Subarea as a replacement source for ground water. Furthermore, alternatives for achieving instream flow benefits that are at least comparable to the amount of mainstem water loss diverted to the Odessa subarea must be examined and evaluated. The omission of such a discussion is yet another glaring example highlighting the insufficiency of the EIS and the need for substantial supplementation.

IV. CONCLUSION & RECOMMENDATIONS

The SEPA process is an important venue for examining the potential alternatives for implementing the Columbia River legislation. We therefore urge Ecology to delay further SEPA action including the development of a final EIS until definitions of crucial terms are agreed-upon, weak or missing portions of the EIS can be filled-out, inaccuracies corrected, and sufficient data can be gathered to form a proper foundation for implementing the Columbia River law.

- ✓ As we addressed in our SEPA scoping comments, CELP urges Ecology to immediately engage in rule-making designed to establish operative definitions for terms such as "conservation", "water use efficiency" and to set definitions and minimum guidelines for consideration of Voluntary Regional Agreements.
- ✓ We urge Ecology to spend no more taxpayer money on developing storage projects, negotiating or implementing voluntary regional agreements, or issuing water rights for new out of stream uses until such time as Ecology can fill in the many glaring data gaps and deficiencies in the Water Supply Inventory report and this draft EIS, and can compile the basic information necessary for effective water resource planning and management.

Thank you for considering these comments.

Sincerely,



Shirley Waters Nixon, Senior Counsel & Acting Executive Director, CELP
 Patrick Williams, Staff Attorney
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Harold Shepherd, Executive Director, Center for Water Advocacy
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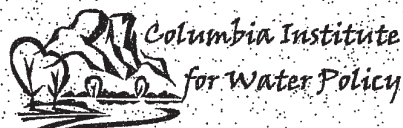
cc: Governor Christine Gregoire
 Senator Eric Poulsen
 Representative Kelli Linville
 Representative Maralyn Chase
 Rebecca Penn, Seattle University School of Law

Comment Letter No. 22 – Center for Environmental Law and Policy

- 22-1. Comment noted.
- 22-2. Comment noted.
- 22-3. See Section 6.1.1 in the Final EIS for definitions of these terms for use in this EIS. Ecology plans to include definitions for these and other important terms in policy and/or rulemaking for the program.
- 22-4. See the response to Comment 21-3.
- 22-5. See the responses to Comments 2-19 and 2-27.
- 22-6. The Final EIS for Watershed Planning under Chapter 90.82 RCW was adopted in accordance with WAC 197-11-630 (see Section 1.6). The document was adopted to supplement the information in Management Program EIS. Information in the EIS for the Management Program is intended to supplement the Final EIS for Watershed Planning.
- 22-7. Section 1.3 has been revised in the Final EIS.
- 22-8. As stated in Section 6.1, the impacts of the Policy Alternatives on each element of the environment were not evaluated, because the Policy Alternatives relate to how Ecology will implement the Management Program and would have limited or no impact on the elements of the environment.
- The environmental impacts of the Management Program components, including impacts on endangered species and impacts of diverting flows for off-channel storage, are included in Chapters 4 and 5. The discussion of how the alternatives could affect endangered species has been expanded in the Final EIS. Evaluation of potential impacts to listed endangered species will be an important consideration as specific projects are evaluated for implementation. See the Master Response regarding July/August mitigation.
- 22-9. See the response to Comment 12-1.
- 22-10. See the response to Comment 9-8.
- 22-11. See the response to Comment 9-9. Ecology has elected to use the account funds to obtain both instream and out-of-stream benefits. See the revised Section 6.2.3 in the Final EIS. Ecology does not interpret RCW 90.90 to require all of the account funds for purposes other than new storage projects (acquisition, conservation, etc.) to be used exclusively for instream flow improvements.
- 22-12. See the response to Comment 9-10.
- 22-13. See the response to Comment 9-11.
- 22-14. See the response to Comment 9-12.

- 22-15. See the response to Comment 9-13.
- 22-16. See the response to Comment 9-14.
- 22-17. See the response to Comment 9-15.
- 22-18. See the response to Comment 9-16. Permit S4-30976P was issued in 2003, not 1993 as stated in the draft PEIS.
- 22-19. See the responses to Comments 9-17, 9-18, and the response to your Comment 22-11.
- 22-20. See the response to Comment 9-19.
- 22-21. See the response to Comment 2-27. Before public notice of the draft VRA occurs, Ecology will negotiate several elements of the draft VRA to clarify such things as the area covered and the specific water users and water rights covered. Ecology also will ensure that a process of annual project planning with SEPA review of the specific projects in any given year will be incorporated into the VRA.
- 22-22. As noted in the response to comment 2-27, Ecology will establish an implementation plan for the VRAs, which will be subject to review under SEPA. Ecology will account for trust water rights and permits that rely on trust water rights through a combination of measuring, reporting, field verification and aerial photo assessment.
- 22-23. The Programmatic EIS has framed the potential range of impacts associated with implementing VRAs. Ecology will establish an implementation plan for the VRAs that will be subject to SEPA review. A more detailed discussion of the approach to SEPA review associated with the CSRIA VRA is provided in Section 2.6.
- 22-24. See the response to Comment 22-22 and 22-23.
- 22-25. The Programmatic EIS discusses the potential range of impacts associated with VRAs, including the CSRIA VRA. Additional detail about this proposal will be evaluated as part of subsequent SEPA review for the VRA Implementation Plan. Ecology is committed to compliance with all applicable regulatory and statutory requirements, and will provide additional detail about specific impacts as project-specific information is available.
- 22-26. Refer to the Master Response regarding a Programmatic EISs. The Programmatic EIS describes the broad range of potential impacts associated with VRAs, and acknowledges that a VRA application has been received. Ecology has committed to developing an implementation plan for VRAs that will more specifically outline criteria for measuring impacts and mitigation effectiveness associated with the VRAs, including the CSRIA VRA. This sequence of broad to more narrow evaluation is consistent with WAC 197-11-060(5) (b).
- 22-27. See the revised Section 2.1.2.4 in the Final EIS regarding Ecology's program for improving instream flows.

- 22-28. See the response to Comment 22-27. See also the responses to Comments 9-9, 9-10, 21-17, and 22-11.
- 22-29. Large new storage facilities will be evaluated for their benefits and environmental impacts on a site-specific basis. Ecology does not agree that modification of existing storage operations, ASR and other smaller storage activities, conservation, and acquisitions will not meet the program objectives.
- 22-30. See the response to Comment 22-11.
- 22-31. The exemption from the Trust Program for water savings in the Columbia Basin is legislatively mandated (RCW 90. 0.010(5)). The Lake Roosevelt drawdown proposal includes 27,500 acre-feet for stream flow enhancement in non-drought years and an additional 17,000 acre-feet in drought years. Ecology will further evaluate the impacts of the Lake Roosevelt drawdowns in a Supplemental EIS.
- 22-32. Ecology agrees that the SEPA process is an important venue for describing potential impacts associated with implementing the Columbia River Water Management Program. Ecology believes that a broad framing of the full range of potential issues is appropriate at this time, and that the level of information currently available is adequate to inform decision makers of the full range of broad impacts associated with implementing the program. Additional project-level evaluations consistent with SEPA and/or NEPA will be conducted to fill in project-specific information and specifically quantify impacts associated with the specific components of the program.
- 22-33. See the response to Comment 22-3.
- 22-34. Comment noted.



November 20, 2006

Washington Department of Ecology
15 West Yakima, Suite 200
Yakima, WA 98902

Re: Columbia River Water Management Program
Programmatic Environmental Impact Statement

Dear Department of Ecology Staff,

These comments are submitted on behalf of the Columbia Institute for Water Policy, an organization that promotes sustainable, equitable and ethical use of the water resources of the Columbia watershed.

The Columbia River Water Management Program PEIS is a problematic document. While chock full of detail (some accurate, some not), the more serious problems of the PEIS result from its overall approach. *The PEIS ignores or avoids a host of opportunities to develop a progressive, sustainable, economically well-grounded water management program that would promote the public interest, rather than maintain a status quo that imposes harsh, difficult-to-mitigate costs on people and the environment.*

The PEIS fails to consider comprehensive impacts of dams & industrial agriculture. The Columbia watershed is one of the most heavily dammed river basins in the world. Unrelenting development of dams, reservoirs and irrigation projects have destroyed untold riverine, terrestrial, wildlife and cultural resources.¹ As the analytical foundation for a new dam & reservoir construction program, one would expect the PEIS to include a thorough analysis of the cumulative effects of past water development activities that have so thoroughly altered and damaged the basin. Such an analysis is not present. Its absence suggests a bias toward water storage projects and away from preservation and restoration of ecosystems.

The PEIS fails to assess sustainable agriculture options. Any new publicly-funded program intended to assist the agricultural economy should focus on sustainable agriculture: policies to promote small-scale, local farming that minimizes use of chemicals, maximizes soil building, and enhances the natural resource base.² The PEIS could analyze the opportunities to use this new public program to promote sustainable farming. Instead, the concept of promoting sustainable agriculture is discarded.

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Re: Columbia Water Management PEIS

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23-4 *The PEIS fails to analyze social justice impacts.* Water development projects tend to discriminate against people of color and low income communities.³ Eastern Washington irrigated agriculture operates on the backs of immigrant labor and tribal communities. New Columbia water projects that are designed to promote industrial agriculture will exacerbate these problems. The PEIS ignores real-world social, economic, and health problems associated with new water projects, and fails to assess policies that could alleviate existing and future environmental injustice.

23-5 *The PEIS fails to analyze how proposed water management will impact endangered salmon and lead to endangered species litigation.* The legislative determination that the impacts of new water rights need only be mitigated in July and August contradicts both mainstream scientific thought and Columbia River hydro/irrigation project operational rules. If the Department of Ecology issues water rights in conflict with federal requirements it will (1) violate the Endangered Species Act and (2) hasten the extinction of wild salmon in the Columbia River basin. The PEIS should, but does not, analyze the full range of consequences that will flow from the legislative choice to ignore endangered species requirements.

23-6 *The PEIS fails to consider instream flow options.* The Columbia water bill, HB 2860, promises repeatedly that the program is to be designed with twin goals, one of which is to improve instream flows in the Columbia River. But the PEIS does not identify or discuss necessary improvements in flow, nor does it discuss options for how to achieve those improvements. The PEIS ignores modern concepts of instream flow analysis, e.g., the "natural flow regime," which the Washington Department of Fish & Wildlife is incorporating into its instream flow analysis.⁴ The PEIS also fails to

23-7 analyze water quality problems caused by dams and the questionable approach of using dam & reservoir projects to improve fisheries habitat. Again, the bias is toward building dams, not improving the Columbia River ecosystem.

23-8 *The PEIS fails to consider market solutions.* Economic choices have environmental consequences. Existing demand for water in the Columbia watershed is not simply for water, but for "free" water - i.e., water that is subsidized by the public and provided to water users at less than the true cost to develop it. Virtually all demand can be controlled and met through economic policies and methods, including appropriate pricing, water banks, acquisitions and transfers, and other mechanisms.⁵ The PEIS asserts that such analysis is outside its scope, but in fact, the state is making an economic choice to not study water markets as a mechanism to address water supply needs.

23-9 *The PEIS is disconnected to the Water Supply Inventory.* Although the documents were issued almost simultaneously by the same program within the Department of Ecology, the PEIS fails to consider and incorporate the findings of the new Water Supply Inventory (WSI). Important WSI findings include that (1) future demand for irrigated agricultural lands is projected to be flat, and (2) aggressive water conservation projects could effectively meet future water supply needs. Because of these findings, the PEIS should, but does not, examine a "water conservation only" alternative. Why is the state spending \$200 million-plus on a dam building program if its own analysis shows that water conservation can fix the problem?

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23-10 The PEIS scope is arbitrary. The PEIS excludes some water development projects in the Columbia basin, while others are pronounced to be within the scope of the program. No criteria are set forth, other than language of the statute, to determine what is in and what is out. However, because SEPA requires consideration of cumulative impacts, the PEIS should consider the interrelated effects of all ongoing water development programs, regardless of which agency in charge.

After a hundred years of water management policies that have over-appropriated most of Washington's rivers and destroyed many of their values, including fish and wildlife habitat, recreation and aesthetic beauty, one would hope that Washington state had learned that more dams, more reservoirs, and more destruction of habitat, is not the answer. One would hope the state would

- 23-11
- Promote ecologically sustainable water programs.
 - Adopt a precautionary approach to water management
 - Consider the social justice impacts of its actions before moving forward.

The Columbia Water Management Programmatic EIS indicates that is not to be the case.

Thank you for the opportunity to provide comments.

Sincerely,



Rachael Paschal Osborn
Executive Director

cc: Governor Christine Gregoire
Senator Eric Poulsen
Senator Lisa Brown
Senator Karen Fraser
Representative Kelli Linville
Representative Timm Ormsby
Representative Alex Wood

Please contact the Columbia Institute if you would like to receive copies of any of the following articles.

23-12 ¹ See World Commission on Dams, Ortolano, L., et al., Grand Coulee Dam and the Columbia Basin Project, USA (2000), www.dams.org.

² The U.S. Agricultural Research, Extension & Teaching Act, 7 U.S.C. §3103(18), defines sustainable agriculture as:

an integrated system of plant and animal production practices having a site-specific application that will, over the long-term—

- (A) satisfy human food and fiber needs;

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- (B) enhance environmental quality and the natural resource base upon which the agriculture economy depends;
- (C) make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls;
- (D) sustain the economic viability of farm operations; and
- (E) enhance the quality of life for farmers and society as a whole.

³ Environmental Justice Coalition for Water, Thirsty for Justice: A People's Blueprint for California Water (2005), <http://www.ejcw.org/>.

23-12 ⁴ See Poff, N.L., et al, "The Natural Flow Regime," BioScience (Dec. 1997). This seminal paper sets forth how the dynamic nature of river flows serves to protect and restore ecological integrity. Maintaining variability in instream flows promotes essential river functions, such as channel maintenance, biological productivity, riparian vegetation recruitment and diversity, and fish & wildlife life cycles. The point is that river ecology requires focus on more than just minimum flows, but high flows, and the duration, timing and variability and of flows. On the web at http://www-personal.umich.edu/~dallan/pdfs/Poff_1997.pdf.

⁵ Glennon, Robert, "The Quest for More Water – Why Markets Are Inevitable," at the PERC (Property & Environment Research Center, Bozeman, MT) website: <http://www.perc.org/perc.php?id=823>.

Comment Letter No. 23 – Columbia Institute for Water Policy

- 23-1. Comment noted.
- 23-2. The cumulative impacts sections (4.3 and 5.5) have been revised to incorporate the impacts of past storage and irrigation development.
- 23-3. Ecology would consider including sustainable agriculture in developing the project funding criteria; however, the legislature did not provide authority for Ecology to make use of sustainable agriculture practices a prerequisite or condition of receiving funding from the Account. The conservation and other water use efficiency measures promoted by the legislation are consistent with sustainable agricultural practices.
- 23-4. The evaluation of social justice impacts is not a requirement under SEPA; however, the EIS does examine socioeconomic impacts of the Management Program. The socioeconomic sections were included to provide a general understanding of potential economic and social impacts of the Management Program. Section 4.1.1.7 describes both positive and negative impacts that could accrue to the region as a result of the Management Program.
- 23-5. See the Master Response regarding July/August mitigation. Ecology does not intend to issue water rights that would conflict with other federal, state, or local regulations.
- 23-6. See the revised Section 2.1.2.4 in the Final EIS regarding Ecology's Program for improving instream flows.
- 23-7. See the response to Comment 22-28.
- 23-8. As stated in Section 2.4.3, the Legislature considered water marketing and water banking options, but did not specifically authorize them as part of the Management Program. This does not preclude Ecology from pursuing these options in the future.
- 23-9. The Water Supply Inventory was released after the Draft EIS was released. Section 2.1.2.4 of the Final EIS has been revised to incorporate a summary of the results of the inventory. The Legislature and Ecology will use the information from the inventory to guide development of the Management Program.

The inventory indicates that the total annual amount of conservation appears to be adequate to meet the estimated demand for new water rights. However, the inventory highlights three considerations that may reduce the actual amount of water available to meet water rights applications. These are 1) a small portion of the annual conservation potential is likely to accrue directly to the Columbia River; 2) the total annual amount of conservation is distributed on a monthly basis and may not meet demand during peak irrigation season; and 3) the time lag between a point of withdrawal or conservation and return flow may further reduce the amount of conservation savings available.

- 23-10. See the Master Response regarding a Programmatic EIS. See also Section S.4 regarding future review of projects. The cumulative impacts discussion has been expanded in the Final EIS.
- 23-11. Comment noted.
- 23-12. Inclusion of the accompanying reference list is acknowledged.

Law Office of Brett VandenHeuvel

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November 22, 2006

Mr. Derek I. Sandison, Regional Director
Central Regional Office
Washington State Ecology
15 W. Yakima Avenue, Suite 200
Yakima, WA 98902

sent via email: Sandison, Derek [DSAN461@ECY.WA.GOV]

RE: Draft Programmatic Environmental Impact Statement for the Columbia River Water Management Program

Mr. Sandison:

I. Introduction

I write on behalf of Columbia Riverkeeper and Citizens for a Clean Columbia. Columbia Riverkeeper, which is based in Hood River, Oregon and White Salmon, Washington, is a non-profit organization with a mission to restore and protect the water quality of the Columbia River and all life connected to it, from the headwaters to the Pacific Ocean. Citizens for a Clean Columbia is a non-profit citizens' group based in Wenatchee, Washington who advocate for clean water and a healthy Columbia River system for humans, fish, and wildlife. Both organizations have members that use and enjoy the Columbia River for recreational, scientific, aesthetic, and economic purposes. Those interests may be harmed by components of the Department of Ecology's ("Ecology") actions in the Columbia River Water Management Program and this Draft Programmatic Environmental Impact Statement ("DPEIS").

II. The DPEIS is vague and overly broad.

The DPEIS does not contain adequate information for the public to meaningfully comment. One major problem is that Ecology attempts to jam too many policy decisions into the DPEIS instead of providing well-reasoned analyses and the environmental impacts of alternatives. In addition, the DPEIS is simply too vague and too broad. The generalizations in the DPEIS make the document nearly meaningless. For example, regarding surface water quality, the DPEIS states:

Long-term effects of surface water quality could be variable and depend on the current allowable uses and the newly added beneficial uses. Supplying additional beneficial uses of water from a storage facility may reduce return flows if new consumptive uses are allowed from a facility that was previously allocated non consumptive uses. This may be significant and would depend on the amount of water allocated relative to the available volume of water.
DPEIS at 4-8-4-9

24-2 In essence, this states that the effects of the Management Program could be variable and there may be some impact if certain things happen. It is unclear how the public is supposed to provide meaningful comments on this.

24-3 The DPEIS is also deficient because it does not clearly explain the environmental review process for the Management Program. The DPEIS should include a section that explains whether there will be additional public input on policy making, rulemaking, or additional SEPA or NEPA processes for individual projects, policies, and programs. What is the relationship between the DPEIS and subsequent environmental review? In addition, the DPEIS should express whether Ecology is conducting a phased review process under SEPA. WAC 197-11-060(e) ("When a lead agency knows it is using phased review, it shall so state in its environmental document").

24-4 As it stands, the DPEIS fails to give the public an understanding of how it can meaningfully participate in this vague and ambiguous program that has tremendous environmental and social implications. We recommend that Ecology slow down and analyze each component of this Program individually. Because the general nature of the DPEIS precludes meaningful participation, Ecology must engage in the SEPA process for each proposed project.

24-5 In addition, the DPEIS is misleading because of the underlying premise that building dams and issuing additional water rights is a foregone conclusion. The statute has the dual purpose of protecting instream uses and developing new water supplies. Therefore, instream uses, including salmonids, are equally important in the statute as issuing more water rights. The public would not know this by reading the DPEIS, however. The DPEIS focuses on the means by which Ecology plans to issue more water rights. The DPEIS gives some lip service to instream conservation, but does not seriously consider this as an equal component of the Program. Any thoughtful observer, including Ecology, realizes that the Program spelled out in the DPEIS is not designed to protect fish, but to issue more water rights. In order to reflect the statutory intent, the DPEIS should spend equal effort explaining how the Program will protect instream uses. The purpose of a DPEIS is to thoroughly assess the alternatives, including the no action alternative, of any proposal.

III. The DPEIS must consider whether more water supplies are needed and the public interest when weighing the alternatives.

24-6 The DPEIS fails to analyze whether each component of the Management Program is needed. The Legislature required Ecology to develop water supplies. The Legislature did not, however, tell Ecology to pursue water supplies blindly without considering the level of need for more water and the effect on the public interest. The DPEIS should thoroughly consider the need for more water supplies and discuss whether the need is in the public interest.

24-7 In assessing the need for more water, Ecology relied on the Draft Columbia River Water Supply Inventory and Long-Term Water Supply and Demand Forecast Report (Forecast Report). The Forecast Report was likely drafted simultaneously with the DPEIS. A more logical process would be to draft the Forecast Report, take public comments, modify

the Forecast Report, then base the DPEIS on the need described in the Forecast Report. Because of the importance of the Forecast Report, Ecology should have the Report peer-reviewed.

Instead of waiting for a reliable Forecast Report, the DPEIS and the Forecast Report proceeded on parallel tracks, which demonstrates that Ecology developed the DPEIS without considering the level of need for additional water supply, if any. There is no discussion in the DPEIS of whether the Forecast Report demonstrates a need for additional water supplies. In fact, the Forecast Report admitted that the data and predictions were unreliable at this stage. In addition, the Forecast Report is not at all clear that there is a genuine need for additional water supply. The Washington State University study showed that agriculture, by far the dominant water use, is not expected to grow.

Each "need" should be analyzed in the context of the greatest public interest. Ecology should not just issue water rights to all beneficial uses. Ecology should weigh the value of the competing beneficial uses. For example, agriculture is a beneficial use, but this does not end of inquiry of whether additional water should be allocated to all agricultural users. Is it best for the public interest to conserve flow as instream rights to improve fish populations instead of building dams for new water rights? Considering that lack of water quantity and quality are major impediments to salmon recovery, does it make sense issue additional water rights and expand irrigation projects that reduce water quality all the while spending millions of dollars on salmon recovery? Is it best for the public interest to issue water rights based on the promise of unspecified conservation when the river is overallocated? The DPEIS should analyze these alternatives in the context of new dams and VRAs.

After Ecology analyzes whether new water supply projects are needed and the project is in the public interest, then the DPEIS should examine alternatives to meet the need. The scope of any project must be limited to meeting the need. Ecology cannot assume that it needs to grant unlimited water rights without examining whether these rights, and the means to obtain additional water, benefit the public interest. The DPEIS's assumption that the State must find new water, regardless of the consequences, is a fundamental flaw of the DPEIS.

IV. The DPEIS fails to analyze the impact of issuing new water rights

The Management Program is premised on the general idea of issuing new non-interruptible water rights derived, in part, on water conserved by agriculture and other uses. The DPEIS fails to analyze the environmental impact of overallocating the river's water. Overallocation could occur because Ecology's knowledge of water availability is not precise and/or the proposed conservation programs do not work.

Ecology does not have precise spatial or temporal data on the volume of water available for out-of-stream use, how much is being used, the volume of paper rights, the amount of water potentially conserved, and the amount of water that will accrue in the river because of conservation. Despite these critical unknowns, Ecology proposes to issue new water rights based on speculative conservation projects. All conservation projects used for new water rights must be measured after the date that ESSHB 2860 passed, July 1, 2006. Starting from July 1, 2006, Ecology needs at least one year of flow data to serve as a baseline from which to judge the amount of water conserved. Without the comparative baseline,

Ecology cannot assess the amount of water conserved. Ecology must also consider all inchoate rights. In addition, Ecology should independently review all proposed conservation estimates and determine how much water accrues in the Columbia River. Only after Ecology measures quantifiable accrual of conserved water in the river can Ecology issue new water rights. Further, all VRAs and all new water rights should be conditioned upon the success of the conservation projects.

The DPEIS does not explain the process by which Ecology will decide when conserved water is available. Worse, the DPEIS fails to analyze the potential for the Management Program to fail because the conservation projects did not work or because the complex assessment of water availability was incorrect. Overallocation is a very real possibility in the Management Program. As such, the DPEIS must analyze the impacts of overallocation. What impacts occur when river flow drops below the minimum necessary under Washington law or the ESA for salmon? If flow drops below the minimum, what happens to new uninterruptible rights issued by Ecology? What is the impact on the farmers, municipalities, industry, and fish? What alternative methods could Ecology employ to avoid overallocation?

V. Water Quality

Dams and irrigation projects degrade water in nearly every way imaginable. The DPEIS fails to assess adequately that impact of the Program on water quality. Each facet of the Program – water transfer, water storage, and increasing water rights – will degrade water quality in the Columbia River and tributaries. New dams and reservoirs, both on and off channels, are extremely effective at raising water temperature and reducing the dissolved oxygen levels. High temperatures and low dissolved oxygen are leading causes of the demise of salmon. It is surprising then that Ecology would contemplate additional dams and reservoirs in the name of fish conservation.

In addition to dams, irrigation projects degrade water quality. It is widely accepted that storage projects have greatly degraded water quality. See DPEIS at 3-23 – 3-26. A 2006 USGS study found high nutrient loading, elevated concentrations of pesticides, organochlorine compounds, and other pollutants in both sediment and fish in the Columbia Plateau/Yakima River Basin. Dams and irrigation impoundments also inhibit mixing, introduce elevated concentrations of dissolved gases, trap contaminated sediment, raise temperature and lower dissolved oxygen. DPEIS at 3-24 – 3-25.

The DPEIS provides a long but generalized list of a storage facility's long-term impacts on water quality. DPEIS at 4-8. The DPEIS, however, fails to assess how these impacts will affect the population and long-term survival of salmonid populations and other aquatic life. In addition, the DPEIS fails to analyze the effect of the pollution on human uses, such as domestic, recreation, and drinking water use. Neither the water quality section nor the fish and wildlife section adequately addresses the impact of dams on salmon populations, including threatened and endangered fish.

The DPEIS also fails to consider how the dams and water withdrawals will affect the status of the Columbia River's listing as water quality limited on the 303(d) list. Ecology listed the Columbia River as water quality limited for temperature, dissolved oxygen, fecal

coliform, and several toxic pollutants. As such, the State cannot allow the addition of any of these pollutants into the already degraded system. Irrigation water will add heat, fecal coliform and toxic pollutants, and will contain nutrients and chemicals that will decrease dissolved oxygen. The DPEIS fails to analyze the Management Program's effect of adding heat, fecal coliform, and possibly toxic pollutants, and reducing the dissolved oxygen, on the Columbia River's status as water quality limited. In addition, Ecology's issuance of new water rights will violate the Clean Water Act §303(d) because removal of water creates warmer water that is more concentrated in pollutants. Ecology's plan to heat water in reservoirs will only exacerbate the problem. Further, the DPEIS fails to inform the public of the Ecology's duty to prohibit further degradation of 303(d)-listed streams.

VI. Alternatives

Section 2.2 discusses the "Alternatives for Program Implementation." Consistent with the unorthodox nature of this DPEIS, this section doesn't present alternatives to proposed actions, but rather presents different ways that Ecology may interpret the ambiguous sections of the statute. This interpretation should occur in rulemaking. The inclusion of these policy decisions in an DPEIS is not appropriate. CRK encourages Ecology to engage in an administrative rulemaking process with open public input to interpret the statute.

Even if these policy decisions are appropriate in a DPEIS, the DPEIS does not discuss the environmental impacts of each interpretation, as required by SEPA. Section 2.2 simply presents potential interpretations without any analysis of the impacts. An Environmental Impact Statement that does not analyze the impacts is of little use to the public. Despite these objections, CRK will provide comments on the interpretations in Section 2.2, in part because CRK is afraid that this SEPA process may wrongly substitute for rulemaking and that CRK will not have the opportunity to comment on these important interpretations.

2.2.1. Selecting Storage Projects

Ecology should neither aggressively pursue storage projects nor review storage projects proposed by applicants at this stage. Ecology should determine how much additional water is in the public interest. Ecology should then conduct a SEPA analysis on proposed projects and complete an EIS for any proposed storage project that may significantly affect the environment.

2.2.2. Calculating Net Water Savings from Conservation

The second option in 2.2.2 is too general to provide a specific response. This DPEIS should evaluate the environmental impacts of the alternatives, not present vague potential policy decisions. In general, CRK supports developing a methodology that goes beyond just consumptive use and irrigation efficiency.

2.2.3. Funding Criteria for Conservation Projects

Ecology must use the net water savings from the funded conservation projects to benefit instream flows and water quality only. This is the only logical allocation of the 1/3 of the "new" water that is dedicated to instream rights. Ecology cannot read the statute to say that 2/3 of the water is allocated for out-of-stream use plus the 1/3 of the water that is allocated for instream use can be used to mitigate additional out-of-stream use. This strained

24-19 interpretation would in practice allocate all of the "new" water to out-of-stream use or mitigation.

2.2.5. Conditioning Water Rights on Instream Flows

24-20 Ecology should continue to condition the changes of water rights on adopted instream flows. Ecology should not waive the instream flow water right.

2.2.6. Initiating VRAs

24-21 Ecology should not initiate VRAs. Ecology should review the applications for VRAs and only grant enter into VRAs after at least a year of collecting baseline data on each particular proposed VRA to determine how much water the VRA actually conserves and how much water accrues in the river. Ecology should not issue any water rights or agree to issue water rights until the conservation is proven on the ground.

2.2.7. Processing VRAs

24-22 Ecology should continue to process the applications according to the Hillis Rule. The VRAs, whatever Ecology defines as a VRA, should not be given preference to move in front of other water users.

2.2.8. Defining "No Negative Impact"

24-23 Ecology should limit withdrawals based on conservation to the same pool, but only downstream of the point of net water savings, and not downstream of the pool. Any conserved water that is allowed out of the stream should be used locally in the same pool. A withdrawal anywhere but the same pool does not realistically remove conserved water.

2.2.10. Coordinating VRA Mitigation and Processing New Water Rights

24-24 Ecology should deny the application for a VRA water right if mitigation water is not available. Ecology must make clear rules that successful mitigation is necessary prior to application.

2.2.12. Funding Projects Associated with a VRA

24-25 Ecology should not spend conservation project money for mitigation associated with VRAs. VRAs are likely to profit greatly from the subsidized water that Ecology provides. The conservation money for mitigation is better spent on increasing instream rights by verifying the effectiveness of conservation projects.

2.3. No Action Alternative

24-26 The DPEIS's "No Action Alternative" is deficient because it fails to assess the environmental impact of this alternative, as required by SEPA. As such, the DPEIS does not provide the public with a comparison of the alternative's impacts. The PEIS should further explain the environmental harms and benefits of not implementing the Management Program, including the benefits of not constructing additional dams, not releasing warm, polluted water into the rivers, and not issuing more water rights on an overallocated river.

VII. New dams are unacceptable.

24-27 We oppose new dams and large water storage projects on the Columbia River. As an organization who witnessed the State's assurances that the statute and resulting Management

24-27 Program would benefit fish, we are surprised that the final outcome was essentially a dam-building bill complete with a \$16,000,000 budget and a \$68,000,000 expected cost. It is unlikely that the public would support this bill had they known the true intention and the end result. It is disingenuous to claim that this Management Program will help salmon. Ecology should encourage the Legislature to reconsider the bill.

24-28 The Columbia River has an active storage capacity in excess of 46 million AF, which is equivalent to one-third of the mean annual flow of the Columbia River at The Dalles. This tremendous storage capacity has turned a wild and free-flowing Columbia River into a series of slow-moving pools, which have contributed to the decimation of salmonid populations. Ecology's proposal to allow the construction of new dams and withdrawal of additional water is misguided. Even if more water is made available for instream flows by storing water, the stored water will be highly polluted with increased temperature and nutrients, and decreased dissolved oxygen, organic loads, and woody debris. Warming stagnant water in a reservoir and dumping back into the river will not help fish. The statute directs Ecology to evaluate

24-29 alternative means of supplying water prior to the construction of new dams.

24-30 In any discussion of new dams, the DPEIS must include a thorough discussion on the cumulative impact on threatened and endangered salmonids in the Columbia River Basin. The DPEIS analysis is deficient. Further, the DPEIS fails to adequately analyze the effect of

24-31 destroying thousands of acres of wildlife habitat due to inundation by the reservoir and the resultant expansion of agricultural land on to high desert habitat.

24-32 The DPEIS should thoroughly examine all alternatives instead of proceeding with the assumption that dams are necessary and will be constructed. Ecology must conduct a SEPA analysis for each individual project because the DPEIS does not contain project-specific information. Ecology should make clear in the PEIS that it will conduct a project-specific SEPA analysis. The analysis must examine the need for storing waters, whether the storage is in the public interest, and all direct, indirect, and cumulative effects of building a new dam. Ecology should be open and transparent about its decisions to evaluate the need for storage projects. Simply because the Legislature directed Ecology to consider storage projects, does not mean that new dams are a prudent or even feasible prospect on the Columbia River tributaries. Further, the statute did not instruct Ecology on the amount of water appropriate for storage and conservation.

VIII. The DPEIS fails to analyze the cumulative effects of VRAs

24-33 RCW 90.90.030 authorizes Ecology to enter into VRAs to: provide new water for out-of-stream purposes; streamline the application process; and protect instream flows during July and August. The VRAs will have multiple cumulative effects that are harmful to salmonids and instream flow, and harmful to irrigators who are not part of a VRA. The DPEIS fails to analyze these effects.

First, the DPEIS does not provide adequate information on how the VRAs will operate. It is impossible to analyze the cumulative impacts with such incomplete information. The DPEIS does not explain: What does it take to become a VRA? How will VRAs affect other water users? How will Ecology monitor and measure the conservation projects? Who manages the VRAs? What are the consequences for violating the agreement?

24-33 Ecology must provide detailed information in the PEIS regarding the important effects of VRAs on the river, the fish, and the other farmers. In addition, much of the confusion and unclarity regarding VRAs is better addressed in rulemaking, not a DPEIS. We encourage Ecology to begin an open and transparent rulemaking process that includes interested parties beyond just the irrigators. After rulemaking, any proposed VRA should undergo SEPA analysis.

24-34 Second, VRAs only need to protect instream flows in July and August. There is no scientific basis for not protecting flow during the rest of the year. The DPEIS fails to analyze the impact of the unlimited reduction of flow on fish and other aquatic organisms outside of July and August.

24-35 Third, the DPEIS does not adequately analyze the cumulative effects of inter-basin and inter-pool water transfers pursuant to the VRAs. Both of these transfers could alter the long-term flow regimes throughout the Columbia Basin. This is especially true if the transfers are based on conservation of water in different pools or different basins. The idea of allowing additional water rights from 200 miles downstream because a farmer in northern Washington conserved water is absurd. The DPEIS fails to analyze the multiple scenarios of flow disruption and contamination that would result from the interaction of VRA transfers. Further, the DPEIS fails to analyze the potential for interbasin transfer of pollution or organisms, such as invasive species.

24-36 Fourth, the DPEIS does not analyze the cumulative effect of the VRAs evading consultation with Washington Department of Fish and Wildlife regarding water rights applications. The VRAs should not get special rules that shut out the expert agency. Further, the DPEIS fails to analyze the impact on the VRAs ability to shut out the public by limiting the comment period to 60 days, an impossibly short time to consult on complicated water rights. The DPEIS must explain the effects of this time-frame, including the effect on fish, the concerned public, and other water users who are not in a VRA. Does system give a disadvantage to farmers who are not in VRAs?

IX. The DPEIS fails to identify the purpose and the effects of the Supplemental Feed Route.

24-37 The DPEIS fails to identify to the public that the purpose of the Supplemental Feed Route is to extend the Columbia Basin Project (CBP) eastward to irrigate new farmland. This purpose should be clearly explained in the PEIS. The DPEIS failed to include a discussion of the cumulative impacts of expanding then subsidizing water-intensive agriculture on fish, wildlife, water quality, and sustainable agriculture that uses less water.

24-38 The Supplemental Feed Route will harm Crab Creek by utilizing the creek as an irrigation ditch to transport irrigation water. The irrigation water will degrade water quality in Crab Creek and disrupt the flow regime. Further, adding additional irrigation water to Potholes Reservoir will degrade the reservoir's water quality. The DPEIS fails to adequately analyze the impact due to degraded water quality in Crab Creek or the Potholes Reservoir.

24-39 Further, the purpose of the cursory discussion of the Supplemental Feed Route in the DPEIS is confusing because Ecology does not include project-level specifics. Why is the

24-39 discussion part of the DPEIS? Does Ecology intend to conduct a SEPA analysis for this project?

X. Conclusion

24-40 Thank you for considering these comments. The overall impression we get is that Ecology is rushing through the Management Program without careful thought of the environmental impacts. We understand the statutory timelines, but an unrealistic statute does not trump Ecology's mandate to protect Washington's environment, follow state substantive and procedural law, and encourage public participation. Ecology's mission is to "protect, preserve, and enhance Washington's environment, and promote the wise management of our air, land and water." The ambiguous treatment in the DPEIS of new dam building, binding agreements for new water rights, and the destruction of thousands of acres of important habitat demonstrates that Ecology is not engaging in "wise management" nor being open with the public.

Sincerely,



Brett VandenHeuvel
on behalf of:

Brent Foster
Columbia Riverkeeper
724 Oak Street
Hood River, OR 97301

Susan Evans
Citizens for a Clean Columbia
Wenatchee, WA

Comment Letter No. 24 – Columbia Riverkeeper

- 24-1. Comment noted.
- 24-2. The Management Program was evaluated at a programmatic level. Please see the Master Responses regarding a Programmatic EIS and Section S.4 in the Final EIS for information on future project specific review.
- 24-3. Information clarifying future environmental review has been added to Section S.4 of the EIS.
- 24-4. See the responses to Comments 24-2 and 24-3.
- 24-5. See the revised Section 2.1.2.4 regarding Ecology's program to improve instream flows.
- 24-6. See the response to Comment 21-3.
- 24-7. See the response to Comment 23-9.
- 24-8. See the response to Comment 21-3.
- 24-9. The purpose of the water inventory and demand forecast and the new water information system authorized by the Columbia River Water Management Act is to help provide Ecology with additional information for processing water rights. See the response to Comment 2-19 regarding monitoring the success of VRAs. Issuance of a VRA does not alter the 4-part test required for issuance of a new water right permit.
- 24-10. See the response to Comment 2-19.
- 24-11. Water quality impacts are discussed in Sections 4.1.1.3, 4.1.2.3, 5.1.1.3, and 5.2.1.3. Additional information on water quality impacts of storage facilities will be provided during project level review.
- 24-12. Comment noted. See the response to Comment 24-11.
- 24-13. As stated in your comment, the EIS includes a discussion of water quality impacts of storage facilities in Section 4.1.1.3. Potential impacts of water quality of fish are noted in Section 4.1.1.6. Because this is a Programmatic EIS, a general discussion of water quality impacts on salmonid survival is included. These potential impacts will be described in more detail during project level review.
- 24-14. Specific impacts on the status of the Columbia River's listing on the 303(d) list cannot be determined at the programmatic level. This would be determined during project level review of specific projects. Ecology acknowledges that compliance with all applicable state water quality regulations is an important goal of the Management Program, and potential projects will be assessed regarding their potential compliance with applicable regulations. Ecology acknowledges that further degradation of 303(d) listed streams would not be consistent with applicable regulations, and project-specific mitigation would be required to address these potential impacts. A brief discussion of how the TDG and temperature TMDLs for the Columbia River Basin would provide the framework for ensuring that the cumulative impacts

from individual projects would not negatively affect the status of the Columbia River's listing on the 303(d) list was added to Section 4.3 of the Final EIS.

- 24-15. RCW 90.90 did not provide explicit rulemaking authority to implement the Management Program. In two instances, Ecology has chosen a preferred alternative that may require rulemaking because the policy choice relates to statewide management of the Water Resources Program. See sections 6.2.2 and 6.2.7. Ecology is using the Programmatic EIS to determine the potential impacts of implementing the program. In addition, Ecology established the Columbia River Policy Advisory Group to help identify policy issues associated with implementing the Management Program, provide Ecology with a range of perspectives on policy choices and priorities, and assist Ecology in setting criteria for funding of storage and conservation projects. The Policy Advisory Group represents a broad spectrum of interested parties and has provided Ecology with input on the Policy Alternatives in Chapter 6 of the Final EIS.
- 24-16. Chapter 2 is a description of the project components. Additional discussion of the policy alternatives is included in Chapter 6. See also the response to Comment 22-8.
- 24-17. See the response to Comment 12-1.
- 24-18. See the response to Comment 9-8.
- 24-19. See the response to Comment 9-9.
- 24-20. See the response to Comment 9-11.
- 24-21. See the response to Comment 9-12.
- 24-22. See the response to Comment 9-13.
- 24-23. See the response to Comment 9-14.
- 24-24. See the response to Comment 9-15.
- 24-25. See the response to Comment 9-18.
- 24-26. Chapter 2 is a description of project components and alternatives. The impacts of the alternatives are described in Chapters 4, 5, and 6. The impacts of the No Action Alternative are compared to the action alternatives in those chapters.
- 24-27. Comment noted.
- 24-28. Comment noted.
- 24-29. Ecology will evaluate alternative means of supplying water, along with the other provisions of RCW 90.90.010(2) prior to expending funds on the construction of new storage facilities.
- 24-30. Additional information has been added to the Cumulative Impacts discussion, Section 4.3.

- 24-31. See the response to Comment 9-3.
- 24-32. See the responses to Comments 24-2 and 24-3.
- 24-33. See the response to Comment 2-27 and Comment 22-21.
- 24-34. See the Master Response regarding July/August mitigation.
- 24-35. Ecology cannot speculate as to what specific VRA proposals might emerge in the future, nor the specific tributaries, pools, and geographic areas within the Columbia Basin of Washington State that might be affected. The Final EIS acknowledges that flow disruptions, water quality impacts, and introduction of invasive species may occur associated with implementation of the Management Plan. Subsequent project level environmental review will address these issues in more detail. With regard to review of the environmental impacts associated with the current CSRIA VRA, Ecology intends to conduct phased SEPA review of that proposal per provisions of WAC 197-11-060 of the SEPA Rules. The specific approach is outlined in Section 2.6.
- 24-36. The legislation authorizing VRAs does not eliminate review of water rights applications by the Washington Department of Fish and Wildlife. The 60-day agency review period was established by the legislation to expedite processing of VRAs. Ecology will prepare Implementation Plans for VRAs, which will undergo SEPA review.
- 24-37. The Supplemental Feed Route is not being constructed to extend the Columbia Basin Project. As stated in Section 2.5.2, the purpose of the Supplemental Feed Route is to improve the capacity of the feed routes to supply water to Potholes Reservoir. No additional water will be delivered to Potholes Reservoir. The Supplemental Feed Route would also increase the flexibility of the East Low Canal to supply the 30,000 acre-feet of replacement water to the Odessa Subarea (Section 2.5.1).
- As a separate project Reclamation is evaluating options for supplying additional water to the Odessa Subarea (Section 2.1.2.1). As stated in the Management Program EIS, Reclamation and Ecology will prepare a NEPA/SEPA EIS to evaluate the impacts of extending water to the Odessa Subarea.
- 24-38. As stated in Section 1.1 of the EIS, the impacts of the Supplemental Feed Route will be examined in Reclamation's NEPA environmental review of the project, which is expected to be complete in July 2007. The comment incorrectly states that additional irrigation water will be added to Potholes Reservoir. See the response Comment 24-37.
- 24-39. See the response to Comment 24-38 regarding the NEPA analysis of the project. Also as stated in Section 2.5 of the EIS, the Supplemental Feed Route will likely require an additional SEPA threshold analysis. Ecology will determine if this is required after completion of the NEPA review.
- 24-40. Comment noted.



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November 17, 2006

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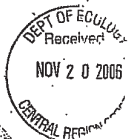
RE: Comments on the Draft Programmatic Environmental Impact Statement for the Columbia River Water Management Program

Dear Mr. Sandison

The Lands Council (TLC) is a non-profit member organization that works to safeguard and revitalize our Inland Northwest forests, water, and wildlife through advocacy, education, effective action, and community engagement. The members, staff and board of TLC appreciate the opportunity to comment on the Draft Programmatic Environmental Impact Statement for the Columbia River Water Management Program.

It is the understanding of The Lands Council that the Columbia River Water Management Program is currently under development to assist in implementation of the Columbia River Water Management Act. This Act, also known as ESSHB 2860, directed the Washington State Department of Ecology to "aggressively pursue the development of water supplies to benefit both instream and out-of-stream uses." We understand that the development of new water supplies would include construction of small and large reservoirs, aquifer storage and recovery (ASR) projects, conservation efforts and other projects that are yet to be determined. It is also our understanding that these new water supplies would ultimately go toward issuance of pending water rights, salmon recovery, conversion of interruptible water rights to uninterruptible water rights, community/industrial/economic development and instream uses. Of these new water supplies, 1/3 would be allocated to instream use while 2/3 would be made available to out-of-stream uses.

The Lands Council has several concerns and questions regarding the various proposals within the PDEIS, as well as how those proposals will ultimately affect the environment and natural resources of Washington State.



Overall Concerns

- 25-2 1. The most recent Biological Opinion suggests higher flows for salmon between April and August. Currently these flows are not being met at Priest Rapids and McNary Dams. Biological Opinion flows are also not being met during parts of the year below Bonneville dam. During low flow years, flows past these dams drop farther below the Biological Opinion Flows. With endangered salmon at constant risk of low water flows, how was the 1/3 to 2/3 rule developed? Would it not be more appropriate to provide additional water to boost salmon flows during low flow periods?
- 25-3 2. How was it determined that April through August were the only months that need additional flows? With the lifecycle of salmon using the river system at different times of the year, why are these months the one time of year focused on within the PDEIS?
- 25-4 3. There are other months when the Biological Opinion flows are not met at Bonneville, McNary and Priest Rapids dams, especially during low water flow years. Will conversion of interruptible water rights to uninterruptible water rights allow for withdrawals during these low flow periods? Would there still be a means of interrupting these water rights to add flows to help protect salmon?
- 25-5 4. The idea of "New Water" is very misleading to people from the general public when reading this PDEIS. After talking with several members of The Lands Council and the general public, it became clear that this wording is confusing. People generally thought that "New Water" meant that there was water coming from a distinctly different source, other than the Columbia River, but that the water was being used in the Columbia. One person even commented "are they flying in icebergs as a new source of water or pumping it over from another river system?" It should be spelled out in the PDEIS that this "New Water" is actually the same water, but that it could be stored and released at different times of the year.

Dam Building

This section is being written under the assumption that the Hawk Creek site will be chosen for the development of a large off-stem storage project. Ecology and the Bureau of Reclamation have stated that they hope to provide water to the Columbia Basin Project through the development of a large storage project. Since the Hawk Creek site is the only site currently under consideration above Grand Coulee Dam, the diversion point for the Columbia Basin Project, it was assumed that this would be the likely candidate for the dam and reservoir construction. This location would also provide the greatest flexibility in management and utilization of the new water supply.

- 25-6 1. Construction of a dam at this location would inundate numerous cultural sites that are of importance to both the Spokane and Colville Tribes. How would these losses be justified and mitigated? Will the tribes allow for the loss of these sites without proper compensation?
2. This site could be affected by the yearly draw down of Lake Roosevelt. During this time, the surface of Lake Roosevelt is several miles from the proposed site and close to 100 feet lower than during full pool. Pumping to the reservoir during

- 25-6
- these times would require extensive alterations to the channel floor or construction of long access penstocks. How would these factors be addressed?
3. During release of water from the reservoir, would water flow freely over the current waterfall below the dam site or would it flow back through the water supply penstock? Would these actions cause scouring on the waterfall and redistribution of sediments? Would reverse flow through a penstock provide a means of harnessing lost hydroelectric power? If water were released when the elevation of Lake Roosevelt is lower than full pool, would there be an effect on Lake Roosevelt sediments?
 4. In the constructed reservoir, would water be drawn down or reservoir refill occur during waterfowl nesting seasons? If so, how would waterfowl be affected (abandoned nest sites, flooded nest sites, loss of habitat)? Would it be possible to operate the reservoir to reduce or eliminate these impacts?

Canal Construction

- 25-7
1. The PDEIS looks at possible construction of the East High Canal, a project that is currently in deferred status in the US congress. Looking at initial plans, this canal would cross large expanses of basaltic bedrock. The construction costs of this canal system would be in the billions of dollars. How will this project be funded and how will taxpayers benefit?
 2. Initial drawings of the East High Canal system show that it would cross large areas of intact shrub-steppe habitat. This habitat is currently in decline in Washington State, with less than 40% of the historical area left. How will canal construction further fragment this habitat? Will there be measures in place to protect this habitat from further degradation should agricultural conversion occur near the canal?

Habitat Loss

- 25-8
1. Prior to community development and agricultural conversion in the Columbia Basin, it is estimated that there were 10.4 million acres of shrub-steppe habitat. In 1996, a study showed that only 4.6 million acres remained: a loss of almost 60 percent. Since then, there has certainly been an additional loss of this fragile habitat that is crucial to several endangered species. With additional water supplied to agriculture and communities, will more of this habitat be lost and how much?
 2. Current sites proposed for large off-stem storage projects would result in the loss of thousands of acres of habitat. These losses include prime waterfowl nesting wetlands, habitat used by various threatened and endangered species and other habitats that are used throughout the year for other species not currently listed. How will endangered/threatened species conflicts be resolved? Would habitat loss associated with dam construction cause other species to enter a protected status?
- 25-9

Economics

- 25-10
1. Construction of the large storage dam and canals would cost several billion dollars with minimal returns on this investment. Currently, irrigators within the Columbia Basin Project receive irrigation water at extremely low prices. The

25-10

- PDEIS actually shows a net loss of funds for many crops that would receive the irrigation water. Can this expense currently be justified? How would these projects be funded? It would be nice to see a cost/benefit analysis of the projects and the expected returns to farmers, communities and industry.
2. The construction projects within the PDEIS appear to primarily benefit large agricultural businesses. How would average citizens benefit from these projects? Would average citizens be required to help fund these projects through increased taxes or state bonds?

At this time, The Lands Council cannot support the construction of large dams and canals to provide "New Water" to fulfill water right requests or for conversion of interruptible water rights to uninterruptible water rights. We would, however, like to see strict conservation programs put in place to help reduce the amount of water that is currently being wasted through inefficient irrigation practices (flood irrigation and unlined/uncovered irrigation canals), city irrigation plans and for wasteful industrial developments.

25-11

We would also like to see a return to dryland farming. Agriculture should work with the environment, not against it. With less than 10 inches of rainfall per year within the Columbia Basin, farmers should return to farming practices that do not require significant application of irrigation water to provide a beneficial crop return. Under current irrigation practices, the effective precipitation is over 40 inches per year. Many farmers that do not receive irrigation water are able to produce crops without requiring additional irrigation. A return to these crops that do not require large quantities of extra water would be highly beneficial to water conservation efforts

We believe that through strict conservation practices in communities, on farms and by industry, enough water would be saved to provide a large portion of the water that is currently being sought. This savings in water would allow for smaller projects to be considered that would not cause large-scale environmental degradation.

Thank you for the opportunity to comment on the Draft Programmatic Environmental Impact Statement for the Columbia River Water Management Program. Furthermore, The Lands Council also supports the comments made by the Columbia Institute for Water Policy and The Sierra Club. We look forward to your responses on all of these comments.

Sincerely,



Brian Walker
Watershed Program Director

Comment Letter No. 25 – The Lands Council

- 25-1. Comment noted.
- 25-2. See the Master Response regarding July/August mitigation.
- 25-3. See the Master Response regarding the mitigation period.
- 25-4. See the Master Response regarding the mitigation period.
- 25-5. The purpose of the legislation is to develop “new water supplies.” While it is not possible to create new water, it is possible to develop new supplies of water through storage and conservation projects. The new water supplies can change the purpose of use of water and the timing and location of the delivery of water. The legislation did not consider bringing water in from another area to supply the Columbia River basin.
- 25-6. As stated in Section 2.1.2.1, Ecology and Reclamation are cooperating on a study to determine the feasibility of constructing large, off-channel reservoirs. Hawk Creek is one of the sites being evaluated in the Pre-Appraisal Report. The Pre-Appraisal Report will be released later in 2007. Section 2.1.2.1 also states that additional environmental review will be conducted on any of the proposed reservoir sites.
- 25-7. The Programmatic EIS does not include construction of the East High Canal. As stated in Section 2.1.2.1, Reclamation and Ecology are conducting a study of supplying additional Columbia Basin Project water to the Odessa Subarea. As stated in the EIS, additional appraisal level studies will be conducted and a NEPA/SEPA EIS on the project will be initiated in fall 2007.
- 25-8. See the response to Comment 1-84.
- 25-9. As stated in Section 2.1.2.1, the specific impacts of site selected for off-channel storage would be evaluated in future NEPA and SEPA reviews.
- 25-10. Additional environmental and economic studies will be conducted prior to the construction of any large storage dam or canal project. The studies would include cost: benefit analyses to determine if the costs could be justified. Funding sources for large-scale projects would likely come from legislative appropriations at either the state or federal level. Appropriation of the funds would be debated in the legislative arena.
- 25-11. Comment noted.



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November 20, 2006

Derek Sandison
Department of Ecology CRO
15 W. Yakima Ave., Suite 200
Yakima, WA 98902-3452

RE: Programmatic EIS

Dear Mr. Sandison,

Please accept these comments on the Columbia River Water Management Program's draft Programmatic Environmental Impact Statement, submitted on behalf of Sierra Club's Upper Columbia River Group.

A quote from Blaine Harden's book, "A River Lost - the Life and Death of the Columbia", seem appropriate to open these comments.

Testifying before the state legislature in 1984, [WSU economist Norm] Whittlesey ... calculated that each one thousand-acre farm added to the [Columbia Basin] Project would cost the Northwest about \$200,000 a year in higher utility bills. That was the cost of replacing the electricity lost when farmers took water from the river. ...

As for construction cost, Whittlesey calculated that any expansion of the Project would cost \$5,000 an acre, with farmers paying just \$115.

The professor further concluded that expanding the Project would increase the country's surplus of grain, take water away from migrating salmon, and penalize the vast majority of Northwest farmers, who lived outside the Project and yet would have to pay higher taxes and electricity bills to support a scheme that only benefited their competitors.

Whittlesey's 1984 economic analysis effectively put a stake in the heart of expansion of the Columbia Basin Project. Twenty years later the economics are even more unworkable. But in 2006, Governor Gregoire gave her highest legislative priority to passing the dam bill. Parts of the Columbia Water Management Program are designed to increase the farms served by the Columbia Basin Project while elsewhere the Program will create new publicly-funded subsidies for agriculture. None of this makes economic sense for taxpayers and ratepayers who foot the bill.

Sierra Club Comments
Re: Columbia PEIS

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The Washington Legislature delivered by giving the governor what she wanted, without adequate consideration of the economic, environmental and social consequences of authorizing a new bureaucracy within the Department of Ecology with a mission to develop water supply.

As noted on the Dept of Ecology's website,

This State Environmental Policy Act (SEPA) Draft Environmental Impact Statement (EIS) has been prepared to assist the Department of Ecology (Ecology), other participating agencies and entities, and the public in evaluating conceptual approaches to the development of a Columbia River Water Management Program. The Management Program is being developed to implement the Columbia River Water Management Act (Chapter 90.90 RCW), passed by the state legislature in February 2006.

The purpose of the legislation is to develop new water supplies "to meet the economic and community development needs of people and the instream flow needs of fish." The legislation directs Ecology to "aggressively pursue" the development of water supplies. The purpose of this programmatic Draft EIS is to describe the potential impacts that could be associated with the components of the Management Program. The major components evaluated in this document are storage, conservation, Voluntary Regional Agreements, and policy alternatives for implementing requirements of the legislation. The Draft EIS also evaluates potential impacts associated with three actions identified for early implementation-drawdowns of Lake Roosevelt, a supplemental feed route to supply Potholes Reservoir, and the proposed Columbia-Snake River Irrigators Association Voluntary Regional Agreement.

Now the public is confronted with a programmatic environmental impact statement that fails to get to the heart of the issues. My experience with programmatic EISs has found that they are plans to do more planning -- where key analysis and decisions are deferred to another day and document, and when that day and document arrive the information and analysis is not there. The result: the agency and public officials set up a shell game with eastern Washington's rivers and habitats where the public is forever chasing the pea -- while the environmental damage takes place. The programmatic EIS is a red flag for a flawed political process.

The following are the salient points regarding the PEIS:

(1) No More Dams for the Columbia Basin

Dams destroy shrub-steppe, ephemeral streams, and wetlands. These lands support a diversity of species, including endangered wildlife, that should be protected. These last pockets of Columbia Plateau habitat are valuable and should be protected from development.

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26-4 Hawk Creek, Lower Crab Creek, Foster Creek & Sand Hollow Creek. The state is now targeting these watersheds. If you have knowledge and information about the wildlife, habitat, aesthetic and other values of these areas, this would be a good time to share it with the Department of Ecology.

26-5 Dams will not help fish. The premise that new dams and reservoirs will help fish by releasing one-third of the "new" water into the Columbia River – is false. Solar-heated, sediment-laden, slackwater from reservoirs cooking in the heat of the Columbia Plateau summers will harm fish, not help them.

26-6 Water is not available. Most of the water of the Columbia River is already allocated to irrigation, hydropower, and target flows for fisheries, year-round. While the Washington legislature has imprudently legislated otherwise, that does not make it true. The PEIS is deficient for failing to acknowledge and discuss necessary mitigation for months other than July and August.

26-7 The PEIS does not create a coherent "big picture." Alleged demand for water supply is being driven from several locales, including irrigators in the Columbia-Snake River region, Yakima basin and Odessa Subarea. Even assuming a modest additional amount of water can be taken from the Columbia River, there is only so much to go around. How does the state propose to choose between irrigators in different parts of the Columbia basin? This PEIS fails to address this fundamental question.

26-8 In reality, there is no demand for water. The state's Water Supply Inventory (issued almost simultaneously with the Draft PEIS) indicates that there will be little demand for new irrigated cropland in the coming decades. If this is the case, why is Washington throwing millions of dollars at studies and proposals for new dams and storage reservoirs? To the extent there is local demand for water, local irrigators should pay for it through water markets and transfers, pricing and other economic tools. The state should not subsidize water for agriculture.

(2) Sustainability is a key issue for our agricultural communities.

26-9 Sustainable agriculture. The state should use its funding and resources to promote sustainable agriculture. Sustainable agriculture means environmentally friendly farming methods that allow the production of crops and/or livestock while preserving and improving the ecosystem, including maintaining soil fertility and water quality and quantity, preserving biodiversity, and otherwise protecting natural resources.

New dams are the antithesis of sustainable agriculture. Period.

New dams are subsidies for corporate agriculture. The Columbia Basin Project is already one of the most heavily subsidized irrigation projects in the country. Washington has neither the resources nor the need to extend this subsidy to corporate farms. The state should get out of the dam-building business before it becomes invested in projects that damage the environment.

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Re: Columbia PEIS

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(3) The Programmatic EIS fails to consider cumulative effects

26-10 Cumulative effects are changes to the environment that are caused by an action in combination with past, present and future actions, human and otherwise. The PEIS does not consider the impacts of new dam building and new irrigation projects added on top of the extensive dam, reservoir and water supply infrastructure that already exists on the Columbia Plateau.

26-11 The discussion of a new Potholes feed route fails to identify the purpose of the action: to extend the Columbia Basin Project eastward. The state is assessing whether the Bureau of Reclamation should send more water from Grand Coulee to Potholes Reservoir. However, the PEIS does not acknowledge that the feed route is intended to extend the Columbia Basin irrigation project eastward. This is "piece-mealing" – exactly what environmental impact statements are supposed to avoid.

26-12 The discussion of Potholes feed route fails to identify impacts to Crab Creek. Under the proposal, Crab Creek's natural streambed would be used as an irrigation ditch. The discussion of the impacts of this action is completely inadequate.

26-13 The discussion of "Lake Roosevelt drawdown" fails to identify impacts to the Columbia River. The state asserts that taking more water out of Lake Roosevelt (behind Grand Coulee Dam) will have virtually no impacts. There is no discussion of the overall impacts of the existing dam, reservoir and irrigation project and the extent to which this proposal would add to them.

26-14 Why is the state conducting project-level analysis of the Potholes feedroute? If the state intends to defer to the Bureau of Reclamation for future environmental analysis, what is the point of the perfunctory analysis in the PEIS?

26-15 The information in the PEIS is so generalized as to be useless. Discussion of impacts regarding dams, reservoirs, and conservation projects is without site-specific detail and of no use to determine actual impacts and mitigation associated with such activities.

(4) Voluntary Regional Agreement is a Bad Idea

26-16 The PEIS assesses a proposal to give new water rights to the Columbia-Snake River Irrigators Association using an untested new mitigation process called Voluntary Regional Agreements (VRA).

Proposed VRA would subsidize corporate agriculture. The PEIS gives examples of how the VRA would work, including proposing a 45-year interest-free loan to irrigators to pay for dam construction. The VRA is a Very Bad Idea and should be rejected.

26-17 Proposed VRA would require Columbia River mitigation only during July & August. For unknown reasons, the Washington legislature enacted a law asserting that water withdrawals are a problem for the Columbia River only during July and August. This "law" is problematic because it false. Water withdrawals from the Columbia River create adverse impacts almost

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26-17 year-round. But the PEIS would only require new VRA-based water rights to mitigate during July & August. This is incorrect and must be corrected.

(5) PEIS & Policy Choices

26-18 Rather than engage in formal public policy analysis, the Department of Ecology is using the PEIS to assess various policy choices involving water management. This dubious approach to decision making could lead to expenditure of hundreds of millions of dollars without formal rulemaking or policy analysis. The state should re-assess its method, but in the meantime, the following comments on the PEIS are needed.

26-19 Washington should not "aggressively pursue" new dams. The PEIS suggests that the Columbia River Water Management Program requires the state to build new dams. As noted above, dam-building will create significant environmental impacts. The state needs to hear otherwise.

26-20 Public investments should lead to public benefits. When Washington spends tens of millions of public dollars on water conservation projects, saved water should be applied to improve streamflows, water quality, and other public benefits.

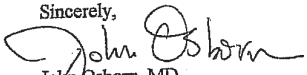
26-21 No interbasin transfers of water. The PEIS proposes to allow water savings in the watersheds to be used by mainstem irrigators. This policy option should be rejected. To the extent that water conservation can be achieved in the watersheds, the benefits should remain in those watersheds.

26-22 Do not issue new, uninterruptible water rights. The National Academy of Sciences studied Washington's Columbia River water management program and made several explicit recommendations. One of them is that the state should not issue water rights that cannot be interrupted when flows in the Columbia River drop to the point of harming fish. Nonetheless, the PEIS is considering exactly how to do that. The state needs to JUST SAY NO to new water rights.

26-23 No special treatment for VRAs. Mainstem Columbia River irrigators want to use the VRA process to cut to the front of the line, to obtain state subsidies, and to use water conservation obtained in watershed upstream of the Columbia mainstream. These proposed policies should be rejected.

Your attention to these comments is appreciated.

Sincerely,


John Osborn, MD
Conservation Chair

Upper Columbia River Group, Sierra Club

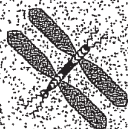
cc: Gov. Gregoire, Sen. Brown, Rep. Ormsby

Comment Letter No. 26 – Sierra Club Upper Columbia River Group

- 26-1. Comment noted.
- 26-2. See the Master Response regarding a Programmatic EIS.
- 26-3. Comment noted.
- 26-4. Comment noted. See the Master Response regarding Future Studies for Off Channel Reservoir Proposals.
- 26-5. Temperature impacts to fish are discussed in several sections of the EIS including Sections 3.4.2, 3.7.1 and 4.1.1.3. Information has been added to Section 4.1.1.6 indicating that reservoir releases to supplement flows will be managed to avoid releasing warm, sediment-laden water.
- 26-6. See the Master Response regarding July/August mitigation.
- 26-7. In developing its preferred alternatives for implementation of the Management Program, Ecology recognized the need to develop a “smart” approach to meeting the legislative mandate of “aggressively” pursuing development of new water supplies to benefit instream and out-of-stream use. Section 2.3.1 recognizes that an effective water supply strategy must link water supply development to water supply needs. The starting point for establishing water supply needs was the initial water supply and demand forecast report that was submitted to the state legislature in November 2006. The supply and demand forecast will be refined over time. The water supply inventory, also submitted to the state legislature in November 2006, established the initial portfolio of water supply projects to match with areas of documented needs. The inventory will also be subsequently refined. Ecology’s intent is to develop a water supply portfolio that is sufficiently large to meet all legitimate needs, and not result in one geographic area or type of water use receiving priority over others.
- 26-8. See the response to Comment 23-9 regarding incorporation of the Water Supply Inventory into the Final EIS.
- 26-9. See the response to Comment 3-9.
- 26-10. See the response to Comment 23-2.
- 26-11. See the response to Comment 24-37. See the Master Response regarding a Programmatic EIS.
- 26-12. See the response to Comment 24-38.
- 26-13. Ecology has determined that additional environmental review is required for the Lake Roosevelt drawdowns and will issue a Supplemental EIS on the drawdown. The Supplemental EIS will include additional information on impacts to the Columbia River.

- 26-14. The general discussion of the potential impacts associated with the Supplemental Feed Route is included in the Programmatic EIS for Ecology's use in the future SEPA threshold determination. The information in this EIS, along with the information from Reclamation's NEPA review, will be used to determine if additional SEPA review will be required for the SEPA action of issuing permits on the project.
- 26-15. Comment noted. See the Master Response regarding a Programmatic EIS.
- 26-16. Comment noted.
- 26-17. See the Master Response regarding July/August mitigation. The mitigation standard in RCW 90.90.030 is unambiguous and was established by the legislation. However, it does not alter the 4-part test required for issuance of a new water right permit.
- 26-18. Ecology considers the SEPA EIS process as an important venue for vetting policy alternatives and for assisting in the identification of preferred policy alternatives. That process does not foreclose, and actually facilitates, future formal policy making and rule making. Ecology has revised the Policy Alternatives presented in the EIS in consultation with the Columbia River Policy Advisory Group and others. In addition, Ecology is considering entering rule-making on certain provisions of the Policy Alternatives.
- 26-19. See the response to Comment 12-1.
- 26-20. Comment noted. See the response to Comment 9-9.
- 26-21. See the response to Comment 9-10.
- 26-22. All permits that would be issued must be conditioned based upon either 1) the consultation process in WAC 173-563-020(4), or 2) the VRA consultation process and mitigation. If a permit were issued without any minimum flow conditions, it would occur through adequate mitigation and appropriate incorporation of consultation comments.
- 26-23. See the response to Comment 21-15.

Center for
Water Advocacy
Water Law and Policy Services



November 8, 2006

Dan Haller
Washington Department of Ecology
Central Regional Office
15 W. Yakima Ave., Suite 200
Yakima, WA 98902-3452



**Re: Initial Report on Columbia River Water Supply Inventory & Long-Term
Water Supply and Demand Forecast, and the related draft EIS**

Mr. Haller:

Thank you for giving us the opportunity to comment on the Initial Report on Columbia River Water Supply Inventory & Long-Term Water Supply and Demand Forecast, and the related draft EIS (Report). The Center for Water Advocacy (CWA) is a non-profit public interest entity dedicated to protecting water resources in the Western United States. CWA conducts legal and scientific research, analysis, policy and litigation in its efforts to protect and restore water quantity, water quality and water rights for the health of the watershed ecosystem, preservation of cultural identity and the benefit of the public.

CWA hereby adopts and incorporates by reference into these comments the comments filed by the Center for Environmental Law and Policy dated November 1, 2006. Please contact me if you have any questions regarding our comments.

Sincerely,

Harold Shepherd
President

P.O. Box 583
Clifton, CO 81520

Phone: 541-377-0960
Email: waterlaw@uci.net

Comment Letter No. 27 – Center for Water Advocacy

27-1. Comment noted.



Citizens for a Clean Columbia Wenatchee

434 Orondo Ave. Wenatchee, WA 98801
 509.662.7632 www.cleancolumbia.org

November 5, 2006

Members

Susan Evans, Convener Washington Department of Ecology
 Columbia River Water Management Program

Denise Baach Tim Hill
 Pam Camp Joyce Redfield-Wilder

Maty Hedman Dear People:

Maty Hedman In response to the proposals outlined in the Draft EIS for management proposals for Columbia River water, we have the following comments:

28-1 Layman
 Jake Lodato
 Kathy Lodato
 Steve Schott, Ketrife Falls
 Joan Unterschuetz
 Karl Unterschuetz

1. This aggressive process is taking place way too rapidly. We have the consequences of the dams, of Hanford, of fish ladders and canneries, of Teck Cominco Mining Smelter, et.al., to show that engineered changes that seem initially like a great idea can occur rapidly on the Columbia, and leave us with huge problems. This process needs to slow way down. Who actually will benefit from this? This needs to be spelled out and the limits of this management plan defined. Where does taking water for reservoirs end?

28-2

2. This process is not taking a whole Columbia River planning and awareness approach. The entire and huge Columbia River ecosystem needs to be the basis for very long range planning. With Canada renegotiating the Columbia River Treaty beginning in 2014, we have much reason to have Canadians, tribal and not, at the table. What if Canada decides to store and divert for their use Columbia River water? What if every stream and creek decides to have a storage facility including the tributaries in Montana, Idaho, and Oregon? A much larger, longer and more careful collaborative approach needs to take place as a foundation to prevent future water wars, and to establish a precedent for collaborative, and whole river stewardship.

2.

28-3 3. There are many factors besides fish and Washington State water rights that need to be considered. This process oversimplifies our role as stewards of the river now and in the future. For instance how warm will the waters be that are put back in the river from reservoirs or from conservation efforts? These are complex factors that can not be sufficiently safeguarded by a thirty-day citizen comment period for each proposed reservoir.

28-4 4. The conservation component and water banking suggestions seem at first review a move in the right direction. We support a conservation and water banking option ONLY until more time can be taken for careful measure of whole river ecosystem environmental impacts, and the inclusion of representatives from the entire river. We are opposed to taking more water from Lake Roosevelt next Spring, or any other early actions.

28-5 5. We request the Department of Ecology focus more on pollution prevention and cleanup of the Columbia, the liquid natural gas ports threatening the Columbia River Estuary, the rapid development taking place without regard for the shorelines all along the river and the resulting loss of habitat and ongoing degradation of water quality. It's time to stop taking from the Columbia River and start taking care of the river. The Columbia River is our life blood, and our sacred commons.

Sincerely,

Susan Evans
 Susan Evans
 Citizens for a Clean Columbia - Wenatchee

Comment Letter No. 28 – Citizens for a Clean Columbia (Wenatchee)

- 28-1. Comment noted. This Programmatic EIS is the first step in evaluating the impacts of components of the Columbia River Water Management Program. Additional environmental review will occur for the major components of the program. See the Master Response for Future Studies for Off Channel Reservoir Proposals for and Section S.4 of the Final EIS.
- 28-2. As part of the Management Program, Ecology is coordinating with Canada and adjacent states on issues related to the Columbia River.
- 28-3. The future environmental review for specific projects will include evaluation of a wide range of factors, including impacts on water temperature. The thirty-day comment period that you refer to only applies to Voluntary Regional Agreements (VRAs). Any reservoir proposed would undergo technical, economic, and environmental review as required by NEPA and SEPA, as applicable, which normally takes several years and allows numerous opportunities for public comment.
- 28-4. Comment noted. As stated in Section 2.4, the Legislature considered conservation only and water marketing measures, but did not include them in the Management Program. Conservation is included as a substantial component of the Management Program. Ecology may pursue water marketing measures separately from the Management Program.
- 28-5. Comment noted.

November 20, 2006

To: Washington State Department of Ecology

From: Washington State B.A.S.S. Federation
 Lou Nevsimal, Banks Lake Project Manager
 P.O. Box 6
 Wilbur, WA. 99185
 (509) 647-5527

Subj: Draft Programmatic E.I.S.

Following review of the draft E.I.S. the Washington State Bass Federation has the following concerns and comments.

29-1 Although this program will affect Banks Lake, Billy Clapp Lake, Moses Lake and Potholes and Scootany reservoirs, no effort has been made to identify impacts to the warmwater ecosystems contained therein. You did however consider impacts on Carp in the Kettle River. Are warmwater sportsmen in this state to assume that even Carp are more important than Bass, Walleye and Panfish? That's the impression that this draft supports.

29-2 As found on page 5-5 what does "removal of existing habitat under the reservoirs really mean"? Dredging, Draining, Channelizing, what?

29-3 As found on page 2-9, Operating Banks Lake 2' above 1570' or randomly below 1565'. These actions are beyond the limits set by the B.O.R. for its' normal operations. Will those limits be abandoned, modified or ignored? Ops at 1572' will flood shoreline resorts, require modification of mooring / launching facilities and could destroy shoreline terrestrial vegetation through inundation.

Ops below 1565' will hinder mooring / launch facilities, change stratification patterns, force juvenile fish from cover and may reduce O2 / photoplankton / zooplankton regimes. Wetland areas will suffer and higher flow rates will increase entrainment losses. Will actions be taken to offset or mitigate these effects? Will E.I.S. be required for those ops?

29-4 As found on page 2-9, cycling more water through Potholes reservoir during the summer months will require higher summer water levels. This will cause the loss of willow stands inundated by the change. In only 3 years following Ops changes at Banks Lake (1984), over 90% of offshore willow groves were dead. Within 3 more years most woody debris was gone. Those areas loss were responsible for much of the Sunfish spawning / rearing cover as well as waterfowl / shorebird nesting. No mention of this is in the draft. No specifics on O2 / photoplankton , zooplankton or entrainment issues. Why not?

29-5 The W.S.B.F has and does still support a fisheries supportive drawdown regime. If Banks Lake was to be lowered to 1565' each year from July to March, riparian willows would be reestablished in the critical panfish spawning and waterfowl nesting areas. W.S.B.F. will commit resources to assist in that recovery effort.

29-6 Consistent, predictable drawdowns can be adapted to by recreation suppliers and would have little if any negative effect. Further benefits can be found in the Banks Lake Enhancement Program Master Plan. (W.S.B.F. 1996).

Comment Letter No. 29 – Washington State Bass Federation

- 29-1. Information on cold and warm water fisheries in Banks Lake has been added to the Final EIS. Information on the fisheries of Billy Clapp Lake, Moses Lake, and Potholes Reservoir was included in the DEIS and evaluated for the Supplemental Feed Routes in Section 5.2.1.6. The Management Program is not expected to affect Scootany Reservoir.
- 29-2. The habitat would be removed by flooding the area for a reservoir.
- 29-3. Comment noted. Additional information and analysis on the impacts from additional drawdown will be provided in the Supplemental EIS that Ecology will be preparing on the Lake Roosevelt drawdown.
- 29-4. The Final EIS includes an assessment of Banks Lake and potential effects of the Management Program. Additional environmental review will also be provided in Ecology's Supplemental EIS on Lake Roosevelt drawdowns and Reclamation's Environmental Assessment on the Supplemental Feed Route.
- 29-5. The future operating levels of Banks Lake have not been determined at this time. Impacts on spawning and waterfowl nesting areas will be evaluated in the Supplemental EIS that Ecology will prepare.
- 29-6. Comment noted.

Columbia-Snake River Irrigators Association Policy Memorandum

DATE: November 8, 2006

TO: Mr. Gerry O'Keefe, Columbia River Water Management Coordinator
Mr. Derek Sandison, WADOE Central Regional Office Manager

FROM: Darryll Olsen, Ph.D., CSRIA Board Rep.

SUBJECT: Summary Comments on the Proposed Voluntary Regional Agreement (VRA) Under the Columbia River Water Management Programmatic EIS; and Water Supply and Demand Inventories Review.

Although not a direct commenting agency under the formal consultation process for the Columbia-Snake River Irrigators Association (CSRIA) and WADOE Voluntary Regional Agreement (VRA)—for the development of new water rights under the Columbia River Water Management Program—the CSRIA does provide WADOE with the following summary comments for consideration relative to the Programmatic EIS, and the related water conservation and demand (inventories) reviews.

The CSRIA anticipates comment discussion and review with WADOE at the November 8th briefing/comment meeting, as well as more technical discussions surrounding the implementation of the VRA, and its relationship to conservation and water management projects.

In Summary:

The CSRIA supports the proposal/proposed action for implementing the Columbia River Water Management Program and the early implementation actions, including the Ecology-CSRIA Voluntary Regional Agreement (VRA), a Lake Roosevelt drawdown (re-regulation), and a supplemental feed route for the Potholes Reservoir.

As co-developer of the proposed Voluntary Regional Agreement (VRA), the CSRIA firmly supports an immediate implementation of the CSRIA-Ecology VRA.

The VRA is an important implementation action that fulfills a dominant piece of the 2006 Columbia River Water Management legislation. The Columbia River legislation directs the state and water users to embrace collaboratively new water efficiency and management approaches, and to protect current water rights and secure new supplies for our communities.

3030 W. Clearwater, Suite 205-A, Kennewick, WA 99336
509-783-1623, FAX 509-735-3140

WADOE should move expediently forward with the consultation process for the VRA, and it should be signed by CSRIA and Ecology, as soon as statutory and procedural time lines allow. Under the VRA, some new water rights should be issued by July 2007. As we proceed with VRA implementation, the CSRIA has some specific recommendations for water right processing, requiring more elaborate discussion in the months ahead.

30-2 The Programmatic EIS does offer a satisfactory level of information to assess adequately the significant or non-significant impacts affecting the proposed actions. The technical information within the EIS is adequate to complete the consultation process and to proceed with the VRA. We also note that each new water right is subject to site-specific SEPA review, and this full and complete environmental review.

As we proceed, the CSRIA requests an ability to review jointly with WADOE the consultation comments received and to make collaborative modifications, if needed, to the final VRA.

Under the new Columbia River Water Management legislation, the CSRIA supports state authorization and funding for projects like the new Kennewick Irrigation District (KID) water right (and others), that can be implemented immediately via the VRA process, and convey significant economic-environmental benefits.

The proposed KID water right permit should be authorized; and its associated water transfer infrastructure, appears to be eligible for funding under Section 7(2) of the 2006 Columbia River Water Management legislation—encouraging projects for water exchanges in the Yakima River.

30-3 Further this permit, and its associated benefits, is consistent with the flow regime objectives stated under the Yakima River Basin formation plan process, to meet Yakima River target flows.

The CSRIA will work to identify other water rights that can be moved forward rapidly under the new VRA approach. We include within these candidate water rights opportunities to consolidate multiple rights, and to use existing water rights for water spreading under RCW 90.03.380, with the issuance of new superseding permits/certificates conditioned under the new VRA and Columbia River water right legislation.

30-4 The CSRIA supports the proposed action for implementing a Lake Roosevelt drawdown (re-regulation); but there needs to be better assurances that this is a realistic, near-term option, and the support and "mitigation conditions" for this option should be more transparent. The CSRIA perceives this option as providing drought permits for existing interruptible water rights, as well as new water rights for the Wells Pool management zone.

For legislators and the principal economic stakeholders, the CSRIA suggests that WADOE make clear the real status of this option relative to federal agency consent (BPA and USBR) and the willingness of key parties (Tribes, County governments, irrigation districts, utilities, and others) to support this option. Our discussions with federal agency officials suggest that they view the proposed operation as minor within their current operating regimes—not recognizable under physical operation conditions, but capable of scenario impacts within spreadsheet analyses. The perspectives, and demands, of others are far less clear.

30-4 Specifically, if the Tribes, or others, seek funds to “mitigate” for reservoir operations, then this funding request should be made transparent by the WADOE. It appears to CSRIA that this issue is a “give me money” issue (a buy-out for cooperation). Are current Columbia River Account funding levels adequate to “mitigate” the Tribal/other demands, or is it necessary to request additional funds from the legislature in 2007? The legislature should be informed of this buy-out situation.

The CSRIA does support the state’s objectives for the Lake Roosevelt drawdown, and would further seek to explore use of such water for new, long-term water rights accessible from the Wells Pool area; as well as for the state’s stated purpose to use a portion of the water for a new Quad-Cities water right, partial relief for the Odessa Sub-Area, and drought permits for existing mainstem interruptible water rights.

In the programmatic EIS, the CSRIA believes it is appropriate that the observations and recommendations of the National Academy of Sciences (NAS) report are not overstated, as the report contains serious gaps in adequately evaluating available empirical data/studies pertinent to impacts related to new Columbia River water right withdrawals.

The Programmatic EIS includes limited information regarding the efficacy of the NAS study; and prudently, the EIS authors do not attempt to overstate the study’s findings and conclusions relative to the state’s actions under a new Columbia River Water Management Program.

30-5 To the extent that the state is able to provide expeditiously new water supplies to the key economic stakeholders, the need is rendered moot to re-address the gross technical deficiencies, qualitative speculation, and deliberate misinterpretation surrounding the NAS study—and particularly its relevance to empirical data supporting real-world water management.

The above comment aside, it appears unlikely that the state will be able to sustain over time any water resources management program that turns a blind eye toward the fundamental empirical data, that does not lend support toward that program. As the direct and indirect economic costs of sustaining the program increase, so too will increase the need to empirically justify the program’s existence.

Although identified by pending applications, water demand for developing agricultural irrigation is neither well “acknowledged” (appreciated) within the programmatic EIS, nor within the related water demand forecast review. Nevertheless, the CSRIA perceives that the coverage of the irrigated agriculture economic impacts within the programmatic EIS is more realistically served by the University of Washington (UW) review—as it better relates to incremental additions of irrigated acreage—than the obligatory references to the American Rivers-funded commentary.

The real-world conditions of Columbia River agriculture—and within our irrigation service area—do not conform to that suggested by American Rivers; nor does some of the demand forecast work “express well” current market conditions for irrigated agriculture along the mainstem Snake-Columbia River.

The American Rivers commentary—as well as some aspects of the WSU forecast review—exhibits several key problems/issues, summarized as follows:

- The actual amounts of added irrigated acres for new water rights, outside of the Columbia Basin Project area, are relatively small, over time. It is highly questionable whether this acreage would actually affect the global and regional production markets in the manner prescribed by American Rivers. Also, the near-term, conceivable allocations of new surface water for the Columbia Basin Project area will focus on relief of existing groundwater acreage (already in production), not new acreages.
- There will be some shifts in production agricultural from the tributary areas to the mainstem Columbia-Snake River corridors, with or without the allocation of new water rights. To suggest that this shift would be solely due to new water rights is wrong. The corridors account for prime production areas in the state, with significant production optimization potential, and not affected by other types of market, land, and production efficiency impacts.
- The American Rivers review did not consider export markets or multiplier (processing) effects of those markets. Over half of agricultural production in Washington State is exported, included high-value irrigation products.
- The review does not appear to account for increases in population (food demand) over the next 20 years, which will likely expand some demand for products grown in the Pacific Northwest and Columbia River Basin. Particularly high quality products that cannot be matched by foreign producers.
- It is assumed that new water would be put on marginal crops such as wheat, some types of hay, and other low-value crops. The water will be primarily used for high value crops—to assume otherwise is naïve.
- The review failed to acknowledge or address the concept of spreading fixed capital resources (tractors, pump stations, and other equipment) already purchased

over new land brought into production, and that only the variable costs of production on the new lands would increase (pesticides, power for pumps, etc.).

- The review failed to address the fact that new varieties of crops are being grown. This is particularly true in the orchard and vineyard business and the recent, expanding trend in the growth of bio-fuels. The newer variety crops—and crop needs—typically command a higher price in the market, thereby increasing direct net revenues to the agricultural sector.
- To some extent, the review fails to recognize continuing technological changes in irrigation practices that will take place over time and that would potentially off-set the effects of any new water withdrawals from the Columbia mainstem.
- The American Rivers review (and the WSU work) does not match well the developing land, water, and crop production conditions along the Horse Heaven Hills river corridor; the result of changing local, regional, and national market conditions. Actual market conditions suggest a demand for new agricultural products from this area, with stable-to-increasing price conditions.

30-6

Relative to the demand for new irrigated farmland in the Horse Heaven Hills and Eastern Oregon, and within the McNary-John Day Pools area¹, we observe further that:

- The current prices for most irrigated crops that are, and would be, grown in the Columbia River corridor suggest stable to moderately increasing price structures.
- New or previously grown crop types are becoming available for production with the siting of bio-fuels plants in the Boardman, Oregon, and Plymouth, Washington, areas (2007 and 2008 operation starts at announced plants).
- Recent land sales, rentals, and market inquiries for Columbia River irrigated lands suggest higher range values—approximately \$3,500-4,200 per acre; land demand is an indicator of demand for new water rights.
- Requests for new water rights from existing/new land owners in the Columbia-Snake River region, as well as several recent/active water right transfers for water spreading and processing needs, provide further demand indicators for new water rights.

¹ Based on survey data prepared for the Benton County Commission, Washington; personal communications with members of the Columbia-Snake River Irrigators Association (CSRIA); real estate information received from Clark-Jennings and Associates, Pasco, WA; and information received from the Benton County Water Conservancy Board, Kennewick, Washington, and IRZ Consulting; all information received September-October 2006.

Water rights demand should be met on a real-time basis, thus reducing speculation on the need for additional, large-scale water storage or management projects.

The market is dictating, and will dictate in the future, new water demand needs; the WADOE should focus on meeting immediately real-time demand for new water rights, and then re-assess whether demand calls for major supply projects to be actually developed. Failure to meet existing demand needs breeds speculation on large-scale projects; and large-scale project focus distracts from meeting current demand needs. Is this really the water management model WADOE seeks to follow? Is this effective natural resources management?

30-7

If WADOE meets current water right demands, then it will bring more clearly into focus the actual need for long-term water supply projects. Future needs will be best interpreted by present-day actions.

Realistic demand needs suggest marginal increments in new water supply—to meet existing and new water rights—and they can be met through relatively small reservoir supply projects used in combination with new conservation and water management strategies. With these needs met, the “demand” for large scale projects will be reduced.

We suggest that the CSRIA Yakima River Basin Plan Formulation recommendation, to Ecology and the USBR, is indicative of this management approach.

As completed to date, the CSRIA generally finds the water supply inventory prepared by the WADOE to be useful and a good initial benchmark; as the WADOE acknowledges, the agency needs to use this inventory as a baseline for clarification and refined project selection.

30-8

The key focus on water conservation or management projects should be on consumption relative to in-stream flow impacts, where any conservation or water management project is evaluated relative to reducing tributary or mainstem withdrawals during a critical water-year July-August period (per the actual NAS definitions and conclusions); and including a shifting net withdrawals—via water management strategies—away from the July-August period. The environmental objective of water conservation/management under the new Columbia River water management legislation is critical period flow stability or improvement—with reduced water withdrawals tied to specific measures and actions. This principal objective should not be belabored, redefined, or misconstrued.

The CSRIA will be providing WADOE and legislators with additional information on conservation and water management projects relative to continued review of the Conservation District prepared data and other projects recently identified by the irrigation districts and private sector. This will be an on-going process.

30-9

Finally, the CSRIA does recognize the considerable progress that is being made by WADOE to implement the new Columbia River Water Management legislation. We strongly encourage WADOE to retain its current pace for completing action items, with the realistic goal of issuing some new water rights by June 2007. The state needs to deliver tangible, near-term success to water users, or else the fundamental state approach and objectives will be questioned.

Comment Letter No. 30 – Columbia-Snake River Irrigators Association

- 30-1. Your comments in support of the Management Program are noted.
- 30-2. Comment noted. At the time of printing of this Final EIS, Ecology had completed the consultation process required under RCW 90.90.030.
- 30-3. Your support of the Kennewick Irrigation District application is noted.
- 30-4. Comment noted. Ecology will be preparing a Supplemental EIS on the Lake Roosevelt drawdowns that will address some of the issues you raise.
- 30-5. Comment noted.
- 30-6. Comment noted.
- 30-7. Comment noted.
- 30-8. Comment noted.
- 30-9. Comment noted.

Llewellyn Matthews
 NW Pulp & Paper Association
 1300 114th Avenue SE Suite 200
 Bellevue WA 98004 (425) 455-1323
sherill@nwpulpandpaper.org

Northwest Pulp & Paper Association
 1300 114th Avenue SE Suite 200
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November 20 2006

Derek Sandison
 Department of Ecology CRO
 15 W. Yakima Ave. Suite 200
 Yakima WA 98902-3452 6

RE: Columbia River Draft EIS Comments

This letter constitutes the comments of the Northwest Pulp and Paper Association (NWPPA) on the Columbia River Water Management Program Draft programmatic Environmental Impact Statement (EIS).

NWPPA represents pulp and paper manufacturers in Washington Oregon and Idaho. NWPPA has member facilities located on the Columbia River in all three states: Potlatch in Lewiston; Boise at Wallula WA and St Helens OR; Georgia-Pacific at Camas WA and Wauna OR; Weyerhaeuser at Longview WA; and Longview Fibre also in Longview.

Our industry follows the Columbia River Management Program with interest and shares concerns of other river users for maintaining a full and viable use of the river for water resources and transportation while maintaining a healthy environment. We look forward to your evolving progress and realize the EIS is just the first of many steps.

NWPPA has several concerns regarding the EIS discussion of water quality. This section is does not accurately reflect the temperature water quality regime and also does not adequately position the potential temperature impacts for the purposes of broad policy making.

1. Effect of off-channel storage systems on the temperature regime of the Columbia is not addressed by the EIS

Any project alternative evaluating the feasibility of large off-channel storage systems in the Columbia Basin must evaluate the potential impacts of solar

heating on these reservoirs and what warmer waters will mean for the Columbia River. The EIS is curiously silent on this entire topic.

Nevertheless it is well known that the existence of impoundments behind the dams on the Columbia River creates a situation where a greater water surface area is exposed to solar heating and as a consequence dams have the potential to raise the temperature of the river several degrees over the natural system potential. The effect is not only greater warming of the river but there is also a shift in the temperature regime seasonally and this has implications for migrating anadromous fish. The EIS needs to evaluate the impact of additional impoundments on temperature of the river relative to return flows.

2. The EIS mis-characterizes the impact of point sources such as pulp and paper mills on heat loading this should be corrected.

Affected Environment Section 3.4.2 of Chapter 3.0 contains a description of surface water quality relative to temperature issues. The section references the effort by EPA the three Northwest States and Tribes to develop a TMDL report for temperature on the Columbia and Snake Rivers (P 3-24). The EIS then goes on to mis-characterize information in this draft version of this report by stating that

Water temperature can be elevated above natural background conditions by a number of human activities. Point sources such as municipal waste treatment plants or pulp and paper mills discharge thermal energy directly to the river.

It is true that these point sources discharge warm treated effluent; however it is incorrect to imply that this causes a significant impact on water temperatures. The impact is insignificant and while modeling can be performed to a tenth or hundredth of a degree the effects are shown by field studies to be not measurable.

The work performed so far in the draft TMDL report indicates:

The effect of point sources on water temperature is very small and in and of themselves the point sources do not lead to exceedances of water quality standards when averaged in with the total flow of the river (p. 26 of draft report). The point sources can cause temperature plumes in the near-field but they do not result in measurable increases to the cross-sectional average temperature of the main stems. The dams do however alter the cross-sectional average of the mainstem. They increase the cross-section average temperature by as much as 5° C at John Day Dam in late summer and fall and they extend the periods of time during which the water temperature exceeds numeric temperature criteria (p. 28 of draft report).

These facilities cumulatively do not increase water temperature by more than 0.14°C (p. 37 of draft report).

In response to Ecology Industrial Section concerns that pulp and paper verify the preliminary results of the Columbia River temperature TMDL modeling the mills were requested to perform a two-year field study of water temperature upriver and down river of the mills. Parametrix conducted this effort in the summers of 2002 and 2003. Essentially the two-year monitoring study shows that there is virtually no discernable difference in water temperature of the receiving water upstream and downstream of the facilities.

The final report is available through a number of sources. Ecology's Industrial Section has the report on file. Also the information was submitted to Ecology as part of the 303(d) data call for the most recent listing of impaired waters. Conclusions of the report are cited in the interactive tool for the list of impaired waters. Lastly the report is available through NWPPA by request.

In sum the body of work performed to better understand temperature water quality issues for the Columbia indicates that impoundments such as dams contribute significantly to elevated temperatures; however point sources cumulative do not. This further underscore the first point in this letter that is important to evaluate the effects of new proposed impoundments on river temperatures to better inform policy decisions.

Thank you for your consideration of these comments.

Sincerely,

Llewellyn Matthews
Executive Director

11/20/2006 8:19:00 AM

31-3

Comment Letter No. 31 – Northwest Pulp and Paper Association

31-1. Comment noted.

31-2. The effects of new on and off channel storage systems on water temperature in the Columbia River will be assessed on a project specific basis. See the Master Response regarding future review of off-channel reservoirs.

31-3. Information has been added to Section 3.4.2 to clarify the relative contribution of point sources and dams to temperature increases in the mainstem.



PO BOX 618, Colville, Washington 99114

(509)258-4041

November 20, 2006

To: Dereck Sandison
Department of Ecology
15 West Yakima Ave., Suite 200
Yakima, WA 98902-3452

From: Wesley L. McCart
Stevens County Farm Bureau - President
4979 Lyons Hill Rd
Springdale, WA 99173

Subject: Draft Programmatic EIS for the Columbia River Water Management Program

I, Wesley L. McCart, state the following for the record on behalf of Wesley L. McCart and the Stevens County Farm Bureau:

Stevens County Farm Bureau represents nearly 300 farm, ranch, and small forest landowner families in Stevens, Ferry, and Pend Oreille Counties.

32-1 Under State and local permits, licenses, and approvals, please add consultation with approved WRIA Plans. RCW 90.82 allows for the local input of the citizens in water management. The Department has agreed with these approved plans, and to shared governance concerning issues of these watersheds. It seems prudent that Ecology stands by their commitment and consults with all approved and ongoing WRIA planning processes before proceeding with projects or decisions. Please add this to your lists on pages two and three.

32-2 On page S-5, Section S.3.1.1 Storage Component / Fish, Wildlife, and Plants, please add the positive environmental impacts. Even though it is nice to note all the detrimental aspects of a project, I believe the SEPA process is to allow for all aspects of environmental impacts to be addressed, both positive and negative. There are many positive environmental impacts with regards to storage, such as new habitat and fisheries benefits. The people within the State deserve a well round EIS showing the positive as well as the negative impacts to the environment.

32-3 Many times throughout the draft EIS regarding the early action of drawdown of Lake Roosevelt it is stated that Reclamations proposals are predicated on agreement being reached with the Confederated Tribes of the Colville Reservation. This is only part of the picture. Please correct all of these references. There is a five party agreement between the State of Washington, Bureau of Reclamation, National Park Service, Spokane Tribes, and the Confederated Tribes of Colville for the management of Lake Roosevelt. It is my understanding that any changes in management to Lake Roosevelt must pass through ALL parties within this agreement. It is incorrect to assume that only two parties can form an

32-3 agreement. There is no reference to the National Park Service, and the Spokane Tribes are hardly mentioned. I believe these are important components of a successful process.

32-4 Also, in regards to the drawdown of Lake Roosevelt, consultation with the surrounding Counties should be a must. Recreation and other economic considerations are a huge deal to these counties, and the private owners around and adjacent to the Lake. To disregard these is wrong. It is stated in section 3.12.3.1 that there are no effects due to the loss of recreation. Several citizens at the hearing in Colville in regards to the CRI testified that there are impacts and that these are largely negative and need to be addressed. This has not changed. It is further stated in section 5.1.1.11 that there would be the need to make modifications to the docks, boat ramps, and other structures to accommodate lower lake levels. These have economic and environmental impacts, on the Counties, private citizens who own these facilities, the NPS, and on the people who recreate. Please recognize these impacts and address them. Mitigation concerning these impacts could be made with the County Commissioners of the affected Counties.

32-5 Another concern is section 3.4.2 Surface Water Quality / Nutrients. It is stated that high concentrations of phosphorus from run off of fertilizers is a concern. What are not mentioned are the high concentrations of phosphorus that occur naturally in many areas of the Okanogan Highlands. This information needs to be added to portray an accurate picture. If more information is needed in this regard, please contact the Conservation District of Stevens County for their water quality studies in their area.

I would like to incorporate by reference the oral and written comments of all other Farm Bureau members.

Thank you for allowing me to comment on this matter.

Respectfully submitted,

Wesley L. McCart
Stevens County Farm Bureau - President
4979 Lyons Hill Rd.
Springdale, WA 99173
(509) 258-4041
wpmccart@juno.com

Comment Letter No. 32 – Stevens County Farm Bureau

- 32-1. Ecology acknowledges the importance of coordinating with WRIA managers regarding approved WRIA plans, and will continue to coordinate closely with watershed managers in support of WRIA efforts. There is no formal approval process required, although Ecology will continue to consult with WRIA managers.
- 32-2. Comment noted. Additional information on impacts, both positive and negative, are included in the main body of the EIS, Chapters 4, 5, and 6. Section S is a summary.
- 32-3. See the response to Comment 7-6.
- 32-4. Ecology has determined that additional environmental review of the Lake Roosevelt drawdowns is required and will be preparing a Supplemental EIS. As part of this process, Ecology will coordinate with a wide range of stakeholders, including surrounding jurisdictions, agencies, and individuals. The Final EIS includes additional discussion of impacts to recreation, and the Supplemental EIS will include additional information on impacts to recreational facilities.
- 32-5. The discussion of nutrients was clarified in Section 3.4.2 to include the contribution of nutrients from natural sources.

Wellner, Joanne (ECY)

From: Laura Ackerman/Larry Hampson [simahafarm@ieway.com]
Sent: Monday, November 20, 2006 4:18 PM
To: Sandison, Derek
Subject: PEIS Draft Comments

Nov. 20, 2006

Mr. Sandison,

Please accept these comments into the official record regarding the Columbia River Water Management Program PEIS. We are against more dams in the Columbia Basin. Having spent time at Hawk Creek and Lower Crab Creek on several occasions we know what wild life is there and the damage more dams will do in eastern Washington, especially for the sagebrush- steppe. We desperately need to keep sagebrush-steppe. It's disappearing with development pressures and once dams are built, it will be gone forever. The Columbia Basin has the most species of reptiles, for example, in the state and they are increasingly on the decline due to loss of habitat. Salmon certainly don't need anymore dams. They need free-flowing water. I (Laura) have seen salmon runs so thick in Alaska that you could literally walk across them. That used to be true in Washington, but of course not anymore and dams are the major reason why.

The state needs to take the lead in helping to preserve our natural heritage for future generations. It's not enough to simply rely on private land trust groups to preserve the sagebrush-steppe. Our natural resources belong to everyone, not just the few farmers who would benefit from increased irrigation water. Having grown up in the Columbia Basin, I have seen dozens of times, first hand, the great waste of water the Columbia Basin Federal Irrigation System has produced. I am not anti-farmer, but water conservation just doesn't seem to be a concern to many of them. Sustainability is the only way we are going to have enough water for everyone and wildlife in the future. Dams will just take water away from the rest of the citizens of Washington, including other farmers. It's a cliché, but water is a precious resource that shouldn't be wasted and it is disappearing. These dams just benefit the few and not the many. We don't need water wars in this state. We also don't need to be in the business of subsidizing certain farmers. The VRA is a bad idea, it just subsidizes corporate agriculture. It doesn't take into consideration the public needs and we would get no public benefits.

It's important ecology take the high road, and have adequate public input, look at the science (which doesn't favor dams) and decided that the best course is the one which will benefit the most people.

Sincerely,

Laura Ackerman and Larry Hampson
3118 S. Windsor Rd.
Spokane, WA 99224
509 624-1832
simahafarm@ieway.com

11/27/2006

Comment Letter No. 33 – Ackerman, Laura and Larry Hampson

33-1. Comment noted. See the Master Response regarding Opposition to Dams and Reservoirs.

Sandison, Derek (ECY)

From: calbright@peoplepc.com
It: Sunday, November 19, 2006 12:44 PM
To: Sandison, Derek
Subject: Public Comment--Proposed Sand Hollow Reservoir Site

November 19, 2006

The Proposed Sand Hollow Reservoir Site

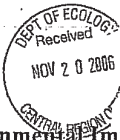
34-1 This area was designed to be productive irrigation land by the Bureau of Reclamation. We object that the land and its purpose be changed for any reason.

Nancy Albright
Albright Farms

11/25/2006

Comment Letter No. 34 – Albright, Nancy

34-1. Comment noted. See the Master Response regarding Future Studies for Off Channel Reservoir Proposals.



Comment Form

Draft Programmatic Environmental Impact Statement (EIS)

Open House

Please provide us with your comments on the Draft Programmatic EIS for The Columbia River Water Management Program. You can complete this form and leave it in the box provided or mail to the address on the back. In addition, you can email your comments to dsan461@ecy.wa.gov.

Comments on the Draft EIS must be received by 5 p.m. November 20, 2006.

35-1

I am very much against the building of dams on any of these four creek tributaries to the Columbia River. The impact on wildlife and people would be devastating. To complete the storage plans formulated when Grand Coulee Dam was built makes better sense.

Lois J. Aldrich

Department of Ecology
Attn: Derek Sandison
15 West Yakima Avenue, Suite 200
Yakima, Washington 98902

Department of Ecology
Attn: Derek Sandison
15 West Yakima Avenue, Suite 200
Yakima, Washington 98902

Follow progress on the EIS at our website <http://www.ecy.wa.gov/programs/wr/cwp/crwmp.html>. Provide your contact information- you will be added to the CRWMP e-mail list and receive automatic updates on the Program.

Name: LOIS J. ALDRICH
Address: 33917 HAWK CREEK RANCH ROAD N.
City, State, Zip: DAVENPORT WA 99122
E-mail: _____

Comments must be received by 5 p.m. November 20, 2006.
Please return this comment form tonight or mail to the address above.

Comment Letter No. 35 – Aldrich, Lois

35-1. Comment noted. See the Master Response regarding Opposition to Dams and Reservoirs.

“Comment on Programmatic Environmental Impact Statement (EIS)”

I have been a long term resident of the Hawk Creek area (almost 33 years) that would be directly impacted if this project were to go forward. Not only did my wife Jan and I raise three sons in this location, we also handcrafted our home and developed 18 acres of land into a small farm, through a continuum of our love, ingenuity, and labor during this period of time. We are located approximately at the 1650 foot elevation level, so according to your projections of water to the 2000 foot elevation, our “home” would lie under 350 feet of water should this project ever be realized.

36-1 I know there are many facts and figures that compute into the logistical analysis around such an endeavor and I am not an expert in regard to any of them. What I do know is that it is a serious undertaking to potentially disrupt the lives and destroy the homes of folks who have labored to create a space on this planet that is dear to them. From the perspective of maps and aerial photos this may seem like a relatively isolated area, but to those who reside here it represents their lives, and in our case at least, it has been the focus of our creative energy. To this regard, I would ask that you maintain this awareness throughout your “feasibility study”.

36-2 In addition, I would like to state that the general impression from our perspective has been that information regarding this project and the meetings that have been scheduled so far have been purposely designed to “fly under the radar” and not invite public participation. The information is very difficult to find on your website and the meetings have been located a substantial distance away during a timeframe that most working folks would have difficulty attending.

36-3 Although I am extremely opposed to this project, I am also realistic in knowing that we are only a small voice in the path of an ever-increasing demand for precious resources. As a result, it is often easier to view the earth through the eyes of how we can manipulate it to meet our demand rather than contemplate alternatives that would both conserve our use and preserve the environment that we are so dependent upon. As decisions such as these can quickly undo the natural habitat that has evolved over a great expanse of time, they should be evaluated in a holistic manner.

Sincerely,

Barney Bowdish
31350 Aspen Lane
Davenport WA 99122
509.725.6731
bbowdish@watrust.com

Comment Letter No. 36 – Bowdish, Barney

- 36-1. Comment noted. Additional environmental review will be conducted on the proposed reservoir sites. See the Master Response regarding Future Studies for Off Channel Reservoir Proposals.
- 36-2. Ecology welcomes public input on the Management Program and has attempted to provide timely information on the process and meetings. There is a link to the Columbia River Water Management Program on Ecology’s home page with extension information on the components of the Program. Meetings were scheduled in four locations in eastern Washington—Moses Lake, Colville, Kennewick, and Wenatchee.

The Columbia River Mainstem Off-Channel Storage Study is considered part of the storage component of the Columbia River Water Management Program and is briefly described in Section 2.1.2.1 of this Programmatic Environmental Impact Statement (EIS). However, this EIS is intended to address the Columbia River Water Management Program (Management Program) as a whole, and is not intended to provide detailed information or analysis regarding potential new storage sites. Such information would be provided in future project-level EISs specifically addressing the storage sites, which would be prepared if the study proceeds beyond an appraisal level of evaluation to a feasibility study.

Ecology chose to conduct four open houses on both the scoping process for the EIS regarding the Management Program and for the public comment process regarding the Draft EIS. There is no requirement in the State Environmental Policy Act (SEPA) or the SEPA Rules for Ecology to hold such open houses, but such events are viewed by Ecology as important vehicles for public outreach regarding the Management Program. The locations of those open houses were selected by the SEPA Responsible Official based primarily two criteria. The first criterion is their proximity to the first projects that are likely to be implemented as part of Management Program, identified in the EIS as “Early Actions.” Those actions are the Supplemental Feed Route Project, Lake Roosevelt Drawdown Project, and the Columbia-Snake River Irrigators Voluntary Regional Agreement. The second criterion was to attempt to provide broad geographic coverage within the Columbia River watershed in Washington State.

Should Congressional authorization be provided to perform a feasibility study on potential storages sites, a National Environmental Policy Act (NEPA) EIS would be prepared and a SEPA EIS would either be prepared jointly with the NEPA document, or subsequent to the completion of the NEPA EIS. As part of the EIS process, it is anticipated that public meetings would be held in locations near any sites under active consideration.

- 36-3. Comment noted.

Sandison, Derek (ECY)

From: mjadireccion@gmail.com on behalf of Paul Bryant [Paul@EveKennedy.com]
sent: Wednesday, November 15, 2006 11:51 AM
To: Sandison, Derek
Subject: Columbia River Draft EIS Comments

Dear Mr. Sandison,

As a resident and farm property owner in Washington state I want to make clear my position on several projects being reviewed by your department.

I am STRONGLY against any addition dams being built to store water along the Columbia river and its tributaries. Our water systems are already severely compromised and I believe additional dams will hurt, not help, the ecosystem already under extreme stress.

I also STRONGLY OPPOSE the construction of additional canals in the Columbia Basin. Current canals are terribly inefficient (eastern Washington is a desert after all) and more wasted water is not a wise idea. As a farm owner I know the terrible effects of our current agricultural policies and adding more heavily subsidized crops to the market will only make life harder, not better for farmers.

It would be far better, both in cost and benefits, to get your department and everyone else to focus and support water conservation and diversified farming. Drip irrigation, dry land farming, and improved tilling methods would save money and the environment, and be more profitable for us farmers as well.

We live in the 21st century, lets stop thinking in ways befitting the last 200 years and think about the next 200 instead.

Thanks you for listening.

Paul Bryant
property owner in Spokane and King county.

37-1

Comment Letter No. 37 – Bryant, Paul

37-1. Comment noted. The Management Program does include a substantial conservation component. See the Master Response regarding Future Studies for Off Channel Reservoir Proposals.

Sandison, Derek (ECY)

From: Bernie Buday [bbbrn@harbornet.com]
Sent: Wednesday, November 15, 2006 3:42 PM
To: Sandison, Derek
Subject: Columbia River Management Program

Attachments: couver letter15.doc; public hearing25.doc



couver letter15.doc
(30 KB)



public hearing25.doc (31 KB)

38-1

Please note attachments. We on the west side of the state, also, in some areas, have a shortage of water supplies as called out in water shed and ground water plans. For these identified reasons we need to under go a similar posses as afforded Eastern Washington under RCW 90-90. In addition because there may be some future administrative or other changes occurring in our State's water laws. We should should be part of the on going public hearing process associated with RCW 90-90.

11/2/06

Western Washington Water Issue. Part I

Within the last several years major changer have occurred in our State's policies concerning water and how we will use it and how much of it can be put to beneficial use.

A number of issues have arisen which have caused this to occur. Primarily these are Indian fishing rights and the associated rights of fisheries to instream flows large enough to sustain their existence. The need to solve the water issues arising between quantities need for fisheries and the amount of water needed for production of food, energy and other beneficial uses have recently brought this to a head in the Columbia River basin.

At the present time, because of the existing water laws of the State, fisheries have the primary right to instream flows. This means that in stream water levels cannot be lowered for irrigation or other activities below a defined amount. The Washington Administrative Codes (WAC 173-510-030) defines the in stream water assessing process and the amounts that are to be maintained.

38-2 To solve this problem the State in acted RCW 90-90, which will provide a methodology and funds for obtaining additional new water supplies for both of these needs. RCW 90-90 was written exclusively for the Columbia River Basin - Water Supply (contained within USA)

The new water is expected to be divided 1/3rd for fisheries and 2/3rds for food or other needs. The new water is expected to be made available through conservation and by capturing excess in stream flows (seasonal excess runoff) and placing them in storage facilities; a water harvesting approach to solving the problem.

For reasons outlined in the attached paper the west side of the State has a need to obtain new harvested water also. This will be for different activities but for the same basic need to put limited water supplies to maximum beneficial use.

The West Side of the State contains 76% of this state's population (2005 DOT data) or 4,824,727 persons.

BB Buday
 Olalla WA.
bbbrn@harbornet.com
 253-857-2978

A Western Washington Water Issue.

11/2/06

From October 15th to November 7th Public hearings were scheduled exclusively in Eastern Washington on an Environmental Impact Statement concerning the recently passed RCW 90-90 legislation. This addresses the need for acquiring additional water supplies to satisfy the growing water needs of the Towns, the production of food and for maintaining fisheries, in the Columbia River basin.

RCW 90-90 identifies the process around which this is to occur. The public hearings are intended to get feed back on the pros and cons of this effort. The hearings will end on the 7th of Nov. 06. Public comment will be taken until the 20th of Nov, 06.

What may be the result of this effort are changes in legislation (RCWs), or changes in the WAC codes or internal administrative water policies, which may impact the West side of the State, good or bad. The west side harbors many urban and semi urban areas which also need water and which must also accommodate fisheries. While we don't grow a lot of food we do have a population which continues to expand and we need water for purposes other than food. We should not be excluded from efforts which will likely provide us with additional water supplies derived from and needed in our urban and semi urban environment and water sheds were applicable.

38-3 The West side of the State has a grate deal of rain fall and it appears that we do not have a shortage of water. This is an elusion. We cannot use the shallow groundwater that is in hydraulic continuity with stream flows, or in stream flows, in quantities that will jeopardize fisheries. This is limiting the amount that is available. As a result we are becoming more and more dependent on ground water contained in aquifers which are well below the stream beds and which are not in direct hydraulic continuity with them. An example of the amount contained in the deep aquifers, located on the Kitsap peninsula, the WRIA 15 water shed, was estimated to be 19% of the rainfall it receives each year. This amounts to 10 inches of rain fall out of an estimate 50 inch average. (In general the deeper aquifers recharge rates are small and will vary from location to location) In addition the amount of water that can be taken from the deep aquifers is farther limited to the aquifer's safe sustaining yield (SSY). This is a quantity that can be safely taken from the aquifer which will not deplete it. For planning purposes, this is estimate to be about 1/3 rd of the aquifer's capacity. In terms of our 10 inches example, this is a little in excess of 3 inches. While we do not exactly have the same sort of water problems the East Side has, there are similarities in that the quantities available for beneficial use are small; as a result we are close to being in the same boat as far as future water needs are concerned. The need to increase water supplies for public benefit and to accommodate fisheries is basically the same, and for that reason we should hold public hearings on this side of the State also.

Contact Derek Sandison, DOE, for information on RCW 90-90 and the on going public comment process @ 1-509-454-7673.

BB Buday
Olalla Wa.
bbbm@harbormet.com
253-857-2978

Comment Letter No. 38 – Buday, Bernie

- 38-1. Comment noted. The Washington Legislature created the Columbia River Water Management Program specifically to address water issues in the Columbia River Basin. Chapter 90.90 RCW applies to the portion of the Columbia River Basin in the state of Washington from the Canadian border to Bonneville Dam. It is intended to address ongoing problems in that area. The Management Program does not apply to other portions of the state. Ecology has other programs, including the Watershed Planning process, to address water issues in other parts of the state.
- 38-2. Comment noted. The public meetings were scheduled in eastern Washington, the area to which the Columbia River Water Management Act applies.
- 38-3. See the response to your comment 38-1 regarding applicability of the Columbia River Management Program to eastern Washington.



November 20, 2006

To: Derek I. Sandison
 Re: EIS for Columbia River Water Management Program
 From: Peter S. Burgoon, PhD., PE

These comments will focus primarily on the Supplemental Feed Routes - Section S2.2.2 and Affected Environment Section 3.4.2 Surface Water Quality.

In general all these comments talk around the premise that additional flows to Moses Lake will have beneficial impacts to the trophic status of Moses Lake. A Washington State Department of Ecology (WA DOE) TMDL phosphorus assessment (Carroll 2006) has highlighted the need for reducing phosphorus loads to Moses Lake. Additional flows will dilute lake concentrations and may have similar net impacts as would actual phosphorus load reductions. Consideration and selection of feed routes and time of delivery to the Potholes Reservoir should be required to provide maximum benefit to the trophic status of Moses Lake.

Comment: A Rocky Ford Feed Route should be evaluated. If it is not considered an alternative to Crab Creek it should be included as part of the Crab Creek Alternative.

Reasons are:

1. A significant portion of the flow for the Crab Creek Alternative will flow into Rocky Ford Creek. This has already appears to be occurring during early action flow tests.
2. An earthen dike of unknown structural integrity located in Adrian, Washington could be removed and the flow would go toward Rocky Ford instead of Crab Creek.
3. The route from Adrian to Rocky Ford Creek is underlain by highly permeable sand and gravel and may provide a subsurface transport route to Rocky Ford. This would reduce water loss by evaporation and erosion of unstable channels.
4. Rocky Ford 90th percentile flow is 94 cfs (WA DOE - Carroll 2006). Supplemental flow may significantly reduce the elevated concentrations of phosphorus in groundwater that enters Rocky Ford Creek. Carroll (2006) reported a mean TP of 103 ug/L from Rocky Ford Source Springs. Dilution of Rocky Ford Spring flow may improve the trophic status of Moses Lake.
5. Dilution is currently used to reduce phosphorus concentrations and improve the trophic status of Moses Lake. This dilution water enters the lake from Rocky Coulee on Crab Creek.
6. Moses Lake is on the 303(d) list for phosphorus and a TMDL assessment has been completed (Carroll 2006). This TMDL assessment should be referenced and discussed in the EIS.
7. If additional dilution water entered Rocky Ford Creek the trophic status of the main arm of Moses Lake (that is fed by Rocky Ford Creek) may improve.

Comments regarding Section 3.4.2.2 Supplemental Feed Route -- Water Quantity

8. A significant portion of the flow for the Crab Creek Alternative will flow into Rocky Ford Creek.
9. Potential impacts to flows in Rocky Ford Creek may need to be discussed or evaluated.
10. The route from Adrian, Washington to Rocky Ford Creek is underlain by highly permeable sand and gravel and may provide a subsurface transport route to Rocky Ford.
11. A real time flow station should be installed on Rocky Ford Creek to record flows and changes in Rocky Ford Creek.

103 Palouse Street, Suite 2
 Wenatchee, Washington 98801
 509-663-1303 Fax: 509-663-9449

Comment Letter No. 39 – Burgoon, Peter

- 39-1. Comment noted. Reclamation is performing the evaluation of the Supplemental Feed Routes and the routes you suggest were not selected for study

- 39-2. The potential impacts to Rocky Ford Creek from the Crab Creek Alternative are discussed in Section 5.2.1.3 and 5.2.1.4. Those sections address the water that would flow from Crab Creek to Rocky Ford Creek, the impacts to flows in Rocky Ford Creek from the Crab Creek Alternative, and the highly permeable sand and gravel near Adrian that could provide a subsurface transport route from Crab Creek to Rocky Ford Creek. Reclamation will determine if it is appropriate to install a real time flow station on Rocky Ford Creek if that route is selected.

Wellner, Joanne (ECY)

From: WMDaehlin@aol.com
Sent: Wednesday, November 15, 2006 11:13 AM
To: Sandison, Derek
Subject: Columbia River dams

40-1 My husband and I wish to convey our strong opposition to any further dams on the Columbia River, which would mean the destruction of thousands of acres of prime wildlife habitat.

Wanda Daehlin
1608 S Ash St
Spokane, WA 99203
509.922.0212

11/27/2006

Comment Letter No. 40 – Daehlin, Wanda

40-1. Comment noted. See the Master Response regarding Opposition to Dams and Reservoirs.

Mr. Derek Sandison
Department of Ecology
15 W. Yakima Av, Ste 200
Yakima, WA. 98902-3452

Columbia River Water Management Program

A key concept being omitted with this proposal has to do with public investments needing public benefits, not state subsidies noted thru the VRA process.

41-1 Thank-you for the opportunity to comment on the PEIS. Most of my outdoor experience within Eastern Washington has been related to canoeing with friends and some excursions with the Spokane Canoe and Kayak Club. Overall, it appears that public funding will benefit private corporate agricultural entities, without considerable consideration to degradation of fish, already threatened with extinction due to existing dams. Even if the Columbia Plateau water supply were siphoned from Hawk Creek, Foster Creek, Sand Hollow Creek, and Lower Crab Creek, water supplies after damming could not meet ever growing demands for irrigation. Other creative options and technologies need further exploration.

41-2 I'm concerned that impacts in the PEIS do not reflect unintended year round consequences. With expanding the Columbia Basin Project eastward existing funded conservation projects will be negatively impacted from sustained increase in water temperatures and sediment accumulation. Proposed mitigations do not come close to matching negative year round impacts projected.

41-3 Do not issue uninterruptible new water rights for advancement of irrigation, while promoting degradation to fish habitat and decreasing water flows necessary.

41-4 Please reevaluate the proposed policy to see the Columbia-Snake River irrigators, Yakima Basin, and Odessa Subarea demands for more dam building are excessive. Year round mitigations that are overlooked, without sustaining habitat and wildlife ecosystems attributable to dam building suggest public policy readdress the proposal for another dam. Key issues for sustainable alternatives that balance public needs should be further considered.

Thanks, *Julie Dalsano*
Julie Dalsano
P.O. Box 5053
Coeur d'Alene, ID 83814

Comment Letter No. 41 – Dalsaso, Julie

41-1. Comment noted.

41-2. The projects that you mention will undergo additional environmental review. See the Master Response regarding Future Studies for Off Channel Reservoir Proposals. Expanding the Columbia Basin Project eastward is not a part of the Management Program and will undergo separate environmental review by Reclamation and Ecology. See Section 2.1.2.1 and Section S.4 of the EIS.

41-3. Comment noted.

41-4. Comment noted. See the response to your Comment 41-2 regarding additional environmental review.

Ann Root

From: Wellner, Joanne (ECY) [JWEL461@ECY.WA.GOV]
Sent: Tuesday, December 05, 2006 12:34 PM
To: Ann Root
Subject: Susan Droz: Columbia Water Plan

Joanne R. Wellner, Dept. of Ecology-CRO
15 W. Yakima Avenue, Suite 200
509/575-2680 509/575-2809 fax
jwel461@ecy.wa.gov

From: Susan Droz [mailto:sdroz@verizon.net]
Sent: Thursday, October 12, 2006 10:49 AM
To: Sandison, Derek
Cc: Paul F. Marker
Subject: Columbia Water Plan

October 12, 2006

To: The Department of Ecology
Attn: Derek Sandison

In regards to the Columbia River water management shed, I would like to express my disappointment in eliminating the Palisades Moses Coulee area for a reservoir.

The terrain seems so appropriate to accommodate a massive water supply that would have the potential to benefit the entire state in many ways, such as:

- * a water supply for increased farm land
- * the potential for a magnificent recreational area, which we need more of, due to the increased population growth. Our existing recreational areas are beginning to become overcrowded
- * a contribution to salmon recovery with the possibility of restoring salmon behind Grand Coulee Dam into Lake Roosevelt
- * creating good paying jobs that would come with the construction and maintenance of the project

Yes, it would be very expensive but when you look at all of the benefits it would serve, it would be worth it. With global warming a reality, we need to conserve our natural resources as much as possible at any expense.

Why specifically, was the Palisades Moses Coulee area eliminated from consideration?

Thank you for your consideration of my views on this matter.

Sincerely,

12/5/2006

Paul Marker
711-14th NE
East Wenatchee, WA 98802
509-884-6763

You may reply to this e-mail sent on my behalf by sdroz@verizon.net

12/5/2006

Comment Letter No. 42 – Droz, Susan

42-1. The off-channel storage proposals are being evaluated under a separate process from the Management Program. See the Master Response regarding Future Studies for Off Channel Reservoir Proposals. The Moses Coulee site was eliminated from further consideration because it did not meet the review criteria for feasibility.

Jason Duba
 Faith & Enviro. Network
 2612 W. Gardner
 Spokane WA 99201 (509) 325-3071
jasonduba@gmail.com

I am writing to you as a Christian young man who feels strongly about the need for sound conservation policy. I am concerned about some plans for use of the Columbia River.

I urge you not to build new dams at Foster Creek in Douglas County Sand Hollow and Lower Crab Creek in Grant County and especially Hawk Creek in Lincoln County.

I am concerned that construction of these dams would lead to the loss of thousands of acres of prime wetlands and shrub-steppe habitat. These habitats are critical for several endangered species including the pigmy rabbit sage grouse and spotted leopard frog.

I am also concerned about claims that water stored behind these dams would be available for salmon augmentation flows and would ultimately help in salmon recovery efforts. However water stored in these reservoirs could actually cause more problems with high water temperatures and sedimentation issues due to constant filling and emptying of the reservoirs.

I am concerned that water stored through the construction of these dams would be allocated on a 1/3 to 2/3 basis. Only 1/3 of stored water would be made available for salmon recovery efforts. The remaining 2/3 would be used for out-of-stream uses such as industrial development community water supply agriculture irrigation and changing interruptible water rights to uninterruptible water rights. I think this could lead to problems in dry years and for downstream users.

Additionally expanding the scope of the Columbia Basin Irrigation Project poses some problems. Instead of additional canal construction and water diversion please focus on conversion of irrigated crops to dryland farming. Please work on strict water conservation programs. Currently canals within the Columbia Basin are unlined and uncovered. This results in water being lost to evaporation and seepage of water into the ground. If these canals were lined and covered around 90% of the water would reach its intended destination. Currently only 40% to 60% reaches its destination. Another conservation strategy would be to move from flood irrigation to drip irrigation.

Finally I would like to caution against further draw downs on Lake Roosevelt. An additional 2 foot draw down could expose heavy metal laden sediment to people that recreate on the lake. This draw down would also expose the sediment to

winds that could pick up the heavy metal laden sediment and deposit it in other locations. Another major problem would be the exposure of cultural sites along the banks of Lake Roosevelt which are currently flooded to looters.

Additional water withdrawals from the Columbia River CANNOT CONTINUE. Water from the Columbia River has already been over allocated. Hydroelectric power production irrigation industry and communities all take water from the Columbia River. If additional water is taken from the river there will be continued degradation to the river.

If the current pending water rights are granted through this program it is very possible that we will be in the same situation further down the road. There will always be a demand for water from the Columbia River and dam construction is not the way to supply that demand. We must move towards a sustainable economy that doesn't rely on Columbia River water for all of our water demands.

11/19/2006 1:04:00 PM

Comment Letter No. 43 – Duba, Jason

- 43-1. Comment noted. The off-channel reservoir sites are being evaluated under a separate process from the Management Program. See the Master Response regarding Future Studies for Off Channel Reservoir Proposals.
- 43-2. See the response to your Comment 43-1.
- 43-3. The one-third/two-third allocation would apply to the portion of water resulting from state funding of a storage project (RCW 90.90.010). The allocation was established by the legislation.
- 43-4. See the response to Comment 41-2.
- 43-5. Ecology has determined that additional review of the Lake Roosevelt drawdowns is required and will be preparing a Supplemental EIS. The Supplemental EIS will consider contaminated sediments and exposure of cultural sites. The exposure of archaeological sites along the shore of Lake Roosevelt is addressed in Section 5.1.1.9 of the Final EIS.
- 43-6. Comment noted.
- 43-7. Comment noted.

Frans Eykel
N/A
199 Ostervold Road
Cathlamet WA 98612 (360) 849-4254
franseykel@juno.com

Dear Derek

As you are probably aware of several proposed Liquefied Natural Gas (LNG) facilities on the Lower Columbia River Estuary with the Bradwood OR facility leading the application process may I hereby submit my concerns related to water conservation management.

These facilities when under construction or in operation will use a tremendous amount of water and will effect the water quality of the estuary. Following are amounts of water use from the NorthernStar EIS draft reports;

Ship ballast water 14mg/ship X 125 ships/yr = 1 750mg

Ship cooling water (18hrs at dockside) 1 800mg

Fire Suppression 4400gpm X 60 minutes X weekly = 13.7mg

Wellwater during construction (3years) 13.4mg

Hydrostatic testing of storage tanks 60.0mg

Wellwater for irrigation/sanitation 1.0mg

They also will add 84.0mg of treated vaporizers condensation water which has 10X the salinity of the water at this location. (0.04)

I have voiced my concern also in a letter to Brian Baird our US senators and our Governor.

Thank you for the opportunity to voice my concerns.

Frans Eykel

10/10/2006 11:46:00 AM

44-1

Comment Letter No. 44 – Eykel, Frans

44-1. The liquefied natural gas facility in Bradwood, Oregon is outside the scope of the Management program. The facility is being evaluated separately by the Federal Energy Regulatory Commission and the state of Oregon.



Comment Form

Draft Programmatic Environmental Impact Statement (EIS)

@ Colville WA Open House

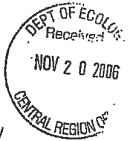
Please provide us with your comments on the Draft Programmatic EIS for The Columbia River Water Management Program. You can complete this form and leave it in the box provided or mail to the address on the back. In addition, you can email your comments to dsan461@ecy.wa.gov.

Comments on the Draft EIS must be received by 5 p.m. November 20, 2006.

See letter. Building these storage dams will not solve your problem. Sometimes we need to say no to progress - get to basics. We don't need more housing in an area that can't support it. Why don't we look at nuclear which would reduce the need for hydro power - may ↑ the water that could be used ~~for~~ different use. There are too many projects that continue to encroach on habitat. We need to figure out something else. Why should we build these when pretty much only private citizens will benefit - Not the whole society. LET'S work together to figure out something else.

I own property in Indian Creek.

Sincerely,
 Yvonne Eyles
 10411 E 24th Ave
 Spokane VLY, WA
 99206



Stopping the Dams ...

I received the Spokesman Review paper on October 2, 2006 and read with a sickening feeling in my stomach about the proposed dams being considered on Hawk Creek, Foster Creek, Sand Hollow and Crab Creek. I contacted the author of the article, James Hagengruber, and he sent me the email address where all of the information can be found. From that email address, there are links to other pieces of information. The email address is http://www.ecy.wa.gov/programs/wr/cwp/crwmw_info.html (between "crwmw" and "info" are 2 underscores). There are documents of many pages and like all government agencies, you will be awash in information that you need to plow through.

As best as I can tell, House Bill 2860 which was sponsored by Representatives Grant, Newhouse, Hankins, Hafer, Walsh and McCune and was proposed to figure out a water management plan of the Columbia River Basin "to meet the economic and community development needs of people and the instream flow of fish". In early 2006, Governor Gregoire signed the bill into law. With this came an aggressive program to figure out how best to meet the water needs for irrigation, fish and development through new "dams" and conservation. This legislation does not require building new "dams" i.e. storage facilities but it is part of the plan.

45-2 From this web site, I found out there were 4 public meetings being conducted. The open houses will be held from 4 to 7 p.m. at these locations:
 Oct. 24 - Moses Lake: Big Bend Community College, Advanced Technologies Education Center (ATEC), 7662 Chanute Street N.E.
 Oct. 25 - Colville: Agricultural Trade Center, 317 W. Astor
 Nov. 1 - Kennewick: Three Rivers Convention Center, Meeting Rooms E & F, 7016 W. Grandridge Blvd.
 Nov. 7 - Wenatchee: Wenatchee Convention Center (The Coast Wenatchee Center Hotel), Fuji Room, 201 N. Wenatchee Ave.

Since the proposal of the dam in Hawk Creek affected my father, Wayne Geissler who lives in Indian Creek and the rest of my family, my husband and I decided to attend the meeting in Colville. On the way up to Colville from Spokane, we chatted back and forth as to why the meeting was in Colville and not in Davenport or Odessa, etc.

When we came to the meeting, it was an informal affair with different stations with information about the water and the ideas they had come up with. Our first encounter was with Brian Watkins who is with the Lands Council in Spokane and we told him right away we are against all 4 dams being proposed. We thought he was part of the group of people who set up this meeting but he was not. We told him we were going to fight this. He said the Lands Council was aware of the proposals and already were planning to become involved to stop them. He also mentioned there were other groups that did not want the dams built. There were only about 8-10 people that attended the meeting when we left at 6 p.m.

45-3 I asked many questions to the people who put on the meeting... such as "why the meeting here in Colville?". Tim Hill, who is with the department of Ecology, could not answer that. I asked why there was not any notice in the Davenport Times, Odessa Record, etc. He did not have an answer for that either. They also did not put any notice of the meetings in the Spokesman Review. They did put notices in the Yakima, Wenatchee and the Colville papers none of which reached all of the people that could be impacted. We explained to Tim Hill that the perception is reality and we were very concerned that the people impacted by these dam proposals were not being given sufficient notice to attend the meetings. Our trust in government agencies is not running very high these days.

45-4 As of now there are 450 pending water right applications that have not been approved. I understand we need water, need to help the salmon and need irrigation. I understand we need some development but maybe an answer to some of the development is NO. If there is not enough water to support your development, maybe it should not be built. After all, Eastern Washington is a desert.

45-5

What I don't understand is why they want to cover acres of wild life habitat and peoples houses to gain what they need? There are other sources of renewable energy, which needs to be considered. This would generate energy that would not have to be from hydropower. This would take away the demand for hydropower and would enable water to be there for the fish if this is 33% of their concern as they stated. (I do have some suggestions for the salmon recovery). To build storage dams, taking water from the river and using it to generate electricity...which was not mention in the press releases...yes, generate electricity and to build another dam to correct the problems created by building a dam in the first place doesn't seem to me to be the best solution. I also understand dams serve many purposes.

45-6

I was told there were about 60 people at the 1st meeting and one person with the Ecology group told us that Odessa people were against the dam. I do not know if this is accurate or not and would like to hear from anyone who attended that 1st meeting.

45-7

I am against all 4 dams being put in. There were storage plans made when they build Grand Coulee that have not been completed. The plans are already in place if this is what they decide to do. My husband and I are going to continue to fight this. Our lands will be taken by eminent domain and paid "fair market price" determine by the government. There will not be any "lake front property as the water behind the dam at Hawk Creek will ebb and flow...It will be drawn down in the summer time....Prqbably will only have 100 to 200 feet behind the dam in summer and be filled in the spring. In the dry years there may be little water behind this storage dam.

In my opinion, we as a community, have a lot to lose if this dam is built...whether it is here or anywhere else. We need to get the message to the people who are in place to make a decision regarding this. There is form you can fill out and state your opinion about these proposed dams or the entire Programmatic Environmental Impact Statement for the Columbia River Water Management Program. You can obtain a form on-line at the email address above or from Jan Bowdish in Davenport @509.725.6731 or I can fax or email you a copy. Call me...509.990.8759 & leave a message or email me yeyler@comcast.net. OR you can write directly to Department of Ecology; Attn: Derek Sandison; 15 West Yakima Avenue, Suite 200; Yakima WA 98902 and note this is for "Comment on Programmatic Environmental Impact Statement (EIS)". This needs to be sent by November 20th, 2006. As always, you can write your legislator regarding your opinion about this.

I will continue to write articles on this subject as long as it is a threat to our way of life and plans for our future. Yvonne Eyler

Comment Letter No. 45 – Eyler, Yvonne (Letter)

45-1. Comment noted. See the Master Responses regarding Future Studies for Off Channel Reservoir Proposals and Opposition to Dams and Reservoirs.

45-2. Comment noted.

45-3. See the response to Comment 36-2 regarding meeting locations.

45-4. Comment noted.

45-5. See the response to your Comment 45-1.

45-6. There were approximately 60 people in attendance at the Moses Lake meeting.

45-7. Comment noted.

Weilner, Joanne (ECY)

From: Peter A. Fraley [pfraley@omwlaw.com]
Sent: Thursday, November 16, 2006 9:01 AM
To: Sandison; Derek
Cc: Haller, Daniel R. (ECY)
Subject: Comments on the Draft EIS

Derek I. Sandison, Regional Director
 Washington State Department of Ecology

RE: Comments to Draft Environmental Impact Statement in response to
 the Columbia River Water Management Act (Chapter 90.90 RCW).

Our law firm represents a number of cities, towns, water districts, sewer districts, irrigation districts, and other public and private owners of water rights in Central Washington. I am a board member of the Chelan County Water Conservancy Board and have been actively involved in water right related issues since 1993.

These comments are being submitted as a private individual and not on behalf of any of our public or private clients. I was unable to review the entire EIS, and will focus my comments on some of the Alternatives for Program Implementation set forth in Chapter 2 of the Draft EIS.

Section 2.2.1 Selecting Storage Projects. Ecology should aggressively pursue storage options that take advantage of the peak in the hydrograph each spring.

Section 2.2.3 Funding Criteria. With the local success of the watershed planning efforts in the Entiat and Wenatchee River basins, funding should focus on mitigation for permits authorizing out-of-stream beneficial use, with some priority given to municipal uses.

Section 2.2.5 Conditioning Water Rights on Instream Flows. Ecology should waive the instream flow rule for new permits or change applications that shift consumptive demand away from the critical summer months. In other words, a change application seeking to change irrigation to year-round municipal use should be permitted without a condition that makes the municipal water right interruptible during the winter months. The current rule is especially frustrating because Ecology has never implemented the winter time portion of the instream flow rule because the primary concern has been and will continue to be the summer months.

Section 2.2.7 Processing Voluntary Regional Agreements. Ecology should amend the Hillis Rule to permit the processing and conversion of interruptible rights to non-interruptible rights "out of order". This should be the primary focus before any consideration is given to processing new water rights, that would presumably be non-interruptible, out of order, even if the new water right is sought in furtherance of a VRA (unless the new water right otherwise qualifies to be taken out of order under existing rules and regulations).

Section 2.2.8 Defining "No Negative Impact" to Instream Flows. Since a definition of "major reach" is not provided it is difficult to compare the "same pool and downstream" option with the "same major reach" option. The depictions in Figure 6-2 are misleading and give the impression that "same pool and downstream" provides the most flexibility, however that is not necessarily the case (if I understand the proposal correctly). I would encourage Ecology to consider combining these two options so that net water savings can be recognized anywhere upstream in the same major reach, however that is ultimately defined, and anywhere downstream of the net water savings.

Section 2.2.9 Defining the One Mile Zone. Ecology should strongly consider including the backwater areas as described in the draft EIS. Water rights need to be treated as consistently as possible. The possibility that some water right owners that are subject to instream flows (WAC 173-563) would be excluded from the application of the Act would be inconsistent.

Section 2.2.10 Coordinating VRA Mitigation and Processing New Water Rights. Ecology should seek legislative authority to skip pending VRA applications so the applicant is not penalized (by having to start over) if mitigation is not available.

Section 2.2.12 Funding Projects Associated with a VRA. It is my impression that VRA's are going to be pursued by entities that can afford to implement the Agreement, like the Columbia-Snake River Irrigator's Association. While I support the general concept behind the VRA's, conservation project money should not be designated only for those applicants in a VRA. Some water right owners simply are not going to participate in or understand the VRAs (suspicion of DOE runs very high). Thus, I would encourage Ecology to retain the flexibility to spend conservation project money on all projects that provide mitigation.

Section 2.2.13 Inclusion of Exempt Wells in Water Use Inventory.

Whether or not exempt wells are included in the analysis is simply not as critical as the other matters identified above. However, in order to support investment backed expectations, including lenders, realtors, and builders, exempt wells within one mile of the mainstem that have been installed since WAC 173-563 should not be subject to interruption. If the trade-off is to consider prohibiting future exempt wells unless they participate in mitigation (a one-time fee would be best and easiest to manage), then that seems like a logical trade-off (but perhaps beyond the scope of this EIS).

Thank you for the opportunity to comment.

Sincerely,

Pete Fraley
 Ogden Murphy Wallace, P.L.L.C.
 1 Fifth Street, Suite 200
 PO Box 1606
 Wenatchee WA 98807
 Phone: (509) 662-1954
 Fax: (509) 663-1553

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Comment Letter No. 46 – Fraley, Peter A.

46-1. Ecology has revised the Policy Alternatives and selected Preferred Alternatives for policy implementation. See the revised Section 2.2 and Chapter 6 in the Final EIS.

COMMENT LETTER NO. 47

Jena Gilman
Self
1480 SW 10th Street
North Bend WA 98045 (425) 765-6274
jfgilman@aol.com

47-1

I oppose the construction of reservoirs in the Crab Creek and Foster Creek Drainages. I was born in Yakima and raised in Moses Lake. I am intimately familiar with the areas that the agencies want to drown. And yes I was nurtured by the agriculture and other industries that power and irrigation projects permitted in the Columbia Basin. But ENOUGH IS ENOUGH! Let's learn to live with the status quo. We aren't going to bring back the salmon to the upper Columbia and we aren't going to recharge the Odessa aquifer. Let's begin to be realistic about conservation and sustainability. Are the agencies going to fill every drainage they can find in order to repair the damage of the reservoirs and dams already built? You are proposing to rob Peter to pay Paul. The State is hell-bent on the Black Rock project. But NO MORE!

Thank you

Jena Gilman

10/10/2006 10:24:00 AM

Comment Letter No. 47 – Gilman, Jena

47-1. Comment noted. See the Master Responses regarding Opposition to Dams and Reservoirs and Future Studies for Off-Channel Reservoir Proposals.

Bart Haggin
bartmh4118@msn.com

48-1

I am sending you an article on the harmful effects of water storage to the environment. Global warming can be increased when large areas are flooded for water storage. Putting more water into the underground aquifer may be practical in some areas but it is best to just pay off the people who have water claims and abandon further agricultural programs that require more water.

Your truly
Bart Haggin

Big Hydro's role in global warming - Patrick McCully
Friday November 17 2006

It comes as a surprise to most people but the reservoirs behind the world's dams are likely a major source of global warming pollution. In the case of big reservoirs in the tropics -- where most new dams are proposed -- hydropower can actually emit more greenhouse gases per kilowatt-hour than fossil fuels including dirty coal.

Climate change scientist Philip Fearnside estimates that hydro projects in the Brazilian Amazon emit at least twice as much greenhouse gas as coal plants. The worst example studied Balbina Dam had a climate impact in 1990 equal to an astonishing 54 natural gas plants generating the same amount of power according to Fearnside.

How is this possible? When a big dam is built its reservoir floods vast amounts of carbon in vegetation and soils. This organic matter rots underwater creating carbon dioxide methane and in at least some cases the extremely potent warming gas nitrous oxide. While emissions are particularly high in the first few years after a reservoir is filled they can remain significant for many decades. This is because the river that feeds the reservoir and the plants and plankton that grow in it will continue to provide more organic matter to fuel greenhouse gas production.

Some of the emissions bubble up from the reservoir's surface. The rest occur at the dam: When methane-rich water jets out from turbines and spillways it suddenly releases most of its methane just like the fizz from a newly opened bottle of Coke. While the scientists working in the field agree on the emissions from reservoir surfaces there is a heated dispute between industry-backed and independent researchers on the amount of gases released at dams. Accounting for these "fizz" emissions greatly increases estimates of the global-warming impact of hydropower. It is not surprising that the hydropower industry is alarmed that it would be considered another global-warming culprit. In the coming green economy energy technologies with the lowest greenhouse-gas emissions will dominate. There's a lot of money to be made in this energy

transformation and the Big Hydro lobby is pushing hard to be seen as climate-friendly. Canadian and Brazilian hydro interests dominate funding for reservoir emission science and have tried hard to control the interpretation of the results. In Canada industry giant Hydro-Quebec has cut funding to scientists whose work was leading to conclusions the utility considered inconvenient. Hydro-Quebec also tried unsuccessfully to pressure a scientific journal (Lakes and Reservoirs Management) into not publishing an article by these scientists.

In hydropower-dependent Brazil the hydro utilities and government have backed a group of scientists who Fearnside charges have "made a career out of trying to prove me wrong." The industry-backed scientists accuse Fearnside a rigorously independent researcher of being seduced by the "lures" of the fossil fuel and nuclear lobbies.

Fearnside's findings were supported in a recent editorial in the scientific journal Climatic Change written by Danny Cullenward and David Victor from Stanford University. Cullenward and Victor criticize the hydro industry's control of the reservoir emissions research agenda and call for an independent analysis of the data and their interpretation by the U.N.'s Intergovernmental Panel on Climate Change (IPCC). This is an eminently sensible suggestion.

Given the high stakes -- the billions of dollars that will be directed to reducing climate change and the importance that these investments be as effective as possible -- it is vital that decisions on climate policy are not made based on evidence produced by self-interested industry lobby groups. This is why an independent review of reservoir emission science is essential. Only the IPCC has the resources and reputation needed to clear the fog of confusion created by the hydro industry and its control of the reservoir emissions research agenda.

Patrick McCully is the executive director of the International Rivers Network a Berkeley-based nonprofit organization that protects rivers and defends the rights of communities that depend on them. IRN opposes destructive dams and the development model they advance.

Page B -- 11 URL:
<http://sfgate.com/caibin/article.cgi?file=/c/a/2006/11/17/EDG6ELJ3U01.DTL>

11/20/2006 1:30:00 PM

Comment Letter No. 48 – Haggin, Bart

48-1. Comment noted. The article you supply relates to reservoirs in tropical climates with high amounts of biomass that decay and produce greenhouse gasses. A similar result is unlikely in arid eastern Washington with a low biomass.

Jacqueline Halvorson
Jacqui Halvorson
3417 S. Division
Spokane WA 99203
jdih12@hotmail.com

We do not need to build more dams in the Columbia Basin. Can't you people learn anything from past mistakes?

There has been a mammoth discussion for the past ten years or more concerning the removal of Snake River and other dams in this region. I have personally spoken with retired employees of the US Army Corp of Engineers who said many of the dams in this region should have never been built because the costs far outweigh the benefits.

I believe the same thing could be said for these proposed dams - the costs far outweigh the benefits.

I am asking that you do not construct another dam in this region. You need to be studying the removal of some of them instead.

Sincerely,

Jacqui Halvorson

11/20/2006 10:11:00 AM

49-1

Comment Letter No. 49 – Halvorson, Jacqueline

49-1. Comment noted. See the Master Response regarding Opposition to Dams and Reservoirs



Architectural
Utilities
Civil

DWIGHT P. HANSEN
DRAFTSMAN

509-725-5605

COMMENT LETTER NO. 50



Dept. of Ecology
Attn: Derek Sandison
15 W. Yakima Ave.
Yakima, Wash. 98902
Nov. 17, 2006

Dear Mr. Sandison:

This is to continue the dialogue of the of the phone conversation we had on Nov. 2, 2006.

I am requesting written notification of any hearings, meetings or advertisements you or your agency are holding on the Hawk Creek project. I am further asking that these events be staged in the county where the project is being contemplated, rather than Spokane or Chelan counties.

The people in this county have an interest in knowing why your agency wants to inundate an incorporated area, what amount of hydro power you plan to dump into the Northwest Power Pool, how much it would cost this county for road relocation and a myriad of other unanswered questions.

I have no "email", so I anticipate hearing from you by mail.

Thank you.

Sincerely,
Dwight P. Hansen

50-1

Comment Letter No. 50 – Hansen, Dwight

50-1. See the Master Response regarding Future Studies for Off Channel Reservoir Proposals. By commenting on the Draft EIS, your name has been added to Ecology's mailing list and you will be notified of future meetings.

Suzi Hokonsoon
Many but grandchildren
1315 w woodside
Spokane WA 99208 (509) 326-2216
suzihokonson@yahoo.com

51-1

Please allow no more dams on the Columbia Basin Sustainable Agriculture is essential and the best use of land for the most and longest good. Voluntary agreement to rules is not effective and not inforcable.

Thanks

Suzi.

11/18/2006 1:33:00 PM

Comment Letter No. 51 – Hokonsoon, Suzi

51-1. See the Master Response regarding Opposition to Dams and Reservoirs. See the response to Comment 23-3 regarding sustainable agriculture. Your comment regarding Voluntary Regional Agreements is noted.

James Hollingsworth
self
2508 So. Adams Rd.
Veradale WA 99037 (509) 999-7307
JLHOLLY@mac.com

52-1

I object to spending \$200 million dollars on a speculation when there are many existing environmental projects that go unfunded. If we can spend \$200 million on studies why can't we spend \$1 million dollars a year to gain proper representation on the Basin Environmental Improvement Commission and protect the source of the Spokane River and Spokane's sole source aquifer? This is a political boondoggle pandering to a powerful agricultural industry.

52-2

This study is intended to find storage for water to meet demands of over-allocated water rights. If a grand scheme of storage facilities were built there would still be a water shortage because the water would all be spoken for.

There is no such thing a "new" water. Conservation and the efficient use of what we have is the only way to meet demand. Every method of waste prevention should be implemented before public money is spent on storage facilities.

If you make more of the existing water available to agriculture and industry they will simply expand to absorb the supply.

In regard to Hawk Creek the size and expense of the contemplated impoundment dam is outrageous. The public should not be insulted with such a wasteful allocation of tax dollars.

52-3

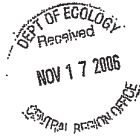
Perhaps this study should include the cost of the subsidy we are now providing to the farmers in the basin. This study should examine the real cost of water in the basin and recommend new rates that share the cost appropriately. Why are we using expensive water to grow crops that are over-produced and uneconomical?

11/15/2006 10:08:00 AM

Comment Letter No. 52 – Hollingsworth, James

- 52-1. Comments noted. The Basin Environmental Improvement Commission and the Spokane aquifer are outside the scope of the Management Program.
- 52-2. See the response to Comment 25-5 regarding “new” water. Hawk Creek will be evaluated in future environmental review. See the Master Response regarding Future Studies for Off-channel Reservoir Proposals.
- 52-3. Text has been added to section 3.2.1.3 Distribution of Costs and Benefits to describe subsidies to irrigated agriculture. Section 3.2.2 Columbia Basin Specific discusses the issue of water costs. A more detailed analysis will be undertaken on a project-by-project basis.

Mary Jokela
35417 N. Dalton Road
Deer Park, WA 99006



November 15, 2006

Mr. Derek I. Sandison
Regional Director
Columbia River Draft EIS Comments
Washington State Department of Ecology
15 W. Yakima Ave., Ste. 200
Yakima, WA 98902

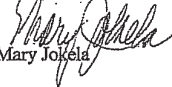
Re: Columbia River Draft EIS Comments

Dear Mr. Sandison:

- 53-1 [Additional dams in the Columbia River Basin would inundate thousand of acres of prime wetlands and shrub-steppe habitat critical for several endangered species.
- 53-2 [Furthermore, the mere one-third of impounded waters intended to augment river flows for migrating salmon would flush excessively warm water resulting from shallow impoundment—no assistance, rather, exacerbated and additional hazards for these cold-water fish.
- 53-3 [Rather than resources for private agriculture, I urge focus on conversion from irrigation to dryland farming operation, from flood to drip irrigation. And let us have NO additional canals in Washington.
- 53-4 [Rather than additional drawdowns for Lake Roosevelt which would expose heavy metal laden sediment to lake users and wind erosion as well as expose cultural relics previously inundated to looters, let's work together for sustainable economy that doesn't rely upon the Columbia River for all our water demands.

Additional water withdrawals from the Columbia River can not continue; this water is already over allocated.

Very truly yours,


Mary Jokela

Comment Letter No. 53 – Jokela, Mary

53-1. See the response to Comment 1-84 regarding shrub steppe habitat.

53-2. The one-third allocation to instream flows was established by the legislation. The water quality of water released for stream flow augmentation will be evaluated during future project specific review (See Section S.4 of the Final EIS).

53-3. Comment noted.

53-4. Comment noted. Ecology has determined that additional review of the Lake Roosevelt drawdowns is required and will be preparing a Supplemental EIS.

The exposure of archaeological sites along the shore of Lake Roosevelt is addressed in Section 5.1.1.9.

Carol Kriesel
WFOR
c1ricket@yahoo.com

Please take into account the following information regarding the proposed LNG regasification plant for Bradwood OR.

Ballast	14 mg/ship (x125)	1750 mg/yr*
Ship Cooling water (18 hrs. dockside)		1800 mg/yr
Vaporizer condensation	160 gpm (x60x24x3)	84 mg/yr
Fire suppression testing	4400 gpm	13.7 mg/yr
Well water useage (during construction)		13.4 mg/yr
Hydrostatic testing of storage tanks		60 mg/yr
Well water for irrigation/personal sanitation		1 mg/yr
Water total of river/well		3 722 101million gallons per year

54-1

This proposed plant of Northern Star is a total negative impact on the Lower Columbia.

10/10/2006 9:37:00 PM

Comment Letter No. 54 – Kriesel, Carol

54-1. See the response to Comment 46-1.

Beatrice Lackaff
citizen
2018 W Bridge Ave
Spokane WA 99201 (509) 327-8303
beala@icehouse.net

Thank you for the opportunity to express my opinion on the Programmatic Environmental Impact Statement for the proposed new dams in the Columbia River Water Management Program.

I think building huge vastly expensive new dams on these side canyons of the Columbia River is a terrible idea. I think the PEIS is inadequate to actually consider basin wide impacts compared to questionable at best benefits and does not truthfully identify the few for whom there is any real benefit at all.

Specifically:

We must not sacrifice these beautiful canyons which have considerable varied native habitat wildlife and recreational value. They should not be destroyed inundated or developed. This habitat is already rare harboring threatened species of plants and animals. These canyons provide a buffer for all of us to enjoy that protects us from turning our land into a faceless development.

Migrating salmon and other fish will have even less cold oxygenated water than they do now. these dams would be another assault on our fisheries and other wildlife which we/they can not afford.

We the taxpayers would pay millions for construction costs higher utility bills with less water over the dams to subsidize the Project farmers and make all the farmers outside the project struggle to get by with less water higher taxes to support the subsidies for Project water users and then try and compete with subsidized Project crops. (See comments of WSU economist Norm Whitley before 1984 State Legislature.)

These dams won't create more water - they will just redistribute it. What about the folks who will lose water to the reservoirs?

Did those who wrote the PEIS read the State Water Inventory for 2005 or 2006 that summarizes there will be LITTLE if any demand for new irrigated cropland in coming decades. This report eliminates the case for these destructive and expensive dams.

This whole project smells of mindless development that would ultimately hurt all of us little guys and especially the family scale farmers to subsidize and benefit developers and industrial agriculture.

Don't sell us out - we don't want more dams on the Columbia.

Thank you.

Bea Lackaff
2018 W Bridge Ave
Spokane WA 99201

11/20/2006 11:51:00 PM

Comment Letter No. 55 – Lackaff, Beatrice

- 55-1. Comment noted. Additional environmental review will be conducted on the off-channel storage facilities, which will include the issues you raise. See the Master Response regarding Future Studies for Off Channel Reservoir Proposals.
- 55-2. Comment noted. Text has been added to section 3.2.1.3 Distribution of Costs and Benefits to describe subsidies to irrigated agriculture.

Sandison, Derek (ECY):

From: langforjc12@juno.com
Sent: Tuesday, October 24, 2006 3:03 PM
To: Sandison, Derek
Subject: Fw: RE: DOE water plans

----- Forwarded Message -----

James,
Why not send that as your comment?

Andrew Sirocchi
Tri-City Herald
509:582.1521

> -----
> From: langforjc12@juno.com
> Sent: Tuesday, October 24, 2006 2:43 PM
> To: asirocchi@tricityherald.com
> Subject: DOE water plans

>
> 10-24: Dear Sir:

> I came to Richland in 1951 and worked to retirement at Hanford. My
> experience with the DOE and now the Dept of Ecol. is not very favorable.
> Your headline that the public can comment on plans is a joke to me. They
> want us to comment as it looks good on the record but they do what they
> want and ignore most comments. My experience is the work of the DOE is
> too late, insincere to the public and will always be that way as they want
> to string out their job. They surely knew that a water shortage would
> come and did almost nothing, hoping it would become a crisis that might
> make it appear their job was important. Meanwhile, as usual, the public
> will suffer for their shortcomings. They talk of decisions about the
> water problem and water management as if they are experts. I don't see it
> that way. Just knowing of the problems and doing nothing is not exactly
> expert to me. They talk about aggressively pursuing the problems--sounds
> more like a Congressman pursuing a page or something. Public is ignored.
> That is why I finally quit commenting. No use.

>
> Sincerely James C. Langford 1338 Sacramento Richland, Wa 99354 946-5893

>
> -----
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11/25/2006

56-1

Comment Letter No. 56 – Langford, James

56-1. Comment noted.

Sandison, Derek (ECY)

From: Susan Droz [sdroz@verizon.net]
Date: Thursday, October 12, 2006 10:49 AM
To: Sandison, Derek
Cc: Paul F. Marker
Subject: Columbia Water Plan

October 12, 2006

To: The Department of Ecology
Attn: Derek Sandison

In regards to the Columbia River water management shed, I would like to express my disappointment in eliminating the Palisades Moses Coulee area for a reservoir.

The terrain seems so appropriate to accommodate a massive water supply that would have the potential to benefit the entire state in many ways, such as:

- * a water supply for increased farm land
- * the potential for a magnificent recreational area, which we need more of, due to the increased population growth. Our existing recreational areas are beginning to become overcrowded
- * a contribution to salmon recovery with the possibility of restoring salmon behind Grand Coulee Dam into Lake Roosevelt
- * creating good paying jobs that would come with the construction and maintenance of the project

Yes, it would be very expensive but when you look at all of the benefits it would serve, it would be worth it. With global warming a reality, we need to conserve our natural resources as much as possible at any expense.

Why specifically, was the Palisades Moses Coulee area eliminated from consideration?

Thank you for your consideration of my views on this matter.

Sincerely,

Paul Marker
711-14th NE
East Wenatchee, WA 98802
509-834-6763

You may reply to this e-mail sent on my behalf by sdroz@verizon.net

11/25/2006

57-1

Comment Letter No. 57 – Marker, Paul

57-1. See response to Comment 42-1.

SADDLE MOUNTAIN RANCHES, INC.

LAND • CATTLE • HAY • HUNTING

26516 W. HWY 26 • OTHELLO, WA • 99144
PHONE: 509 488-9819 • FAX: 509 488-0252

October 26, 2006

Derek Sandison
Washington Department of Ecology
15 W. Yakima Ave. Suite 200
Yakima, WA 98902-3452
dsan461@ecy.wa.gov

Bill Gray
U.S. Bureau of Reclamation
Ephrata Washington
wwgray@pn.usbr.gov

RE: COMMENTS ON DRAFT EIS FOR COLUMBIA RIVER MANAGEMENT PROGRAM

Dear Derek and Bill,

As the President of Saddle Mountain Ranches, Inc. I am writing to address some concerns we have regarding the proposed Lower Crab Creek Dam project. My family has farmed and ranched along Lower Crab Creek for five generations; and it appears from the draft plan that the land we farm and raise cattle on would be rendered useless for these purposes if the proposed project is constructed.

The following are some of the questions that we believe must be considered and answered in a competent and credible EIS for any proposed projects effecting Lower Crab Creek below Potholes Reservoir to the Columbia River.

QUESTIONS RE TIMELINE & OBJECTIVE STUDIES:

- 58-1 [• What is the time line for making a final decision of which sites will be chosen for storage?
- 58-2 [• What impartial studies will be done on the economic impacts to the inundated landowners?
- 58-2 [• Will any studies be commissioned on the economic impacts to the landowners inundated by the proposed storage sites before acquisition?
- 58-2 [• We request that a study be done prior to any final decisions on storage projects so

- 58-2 [that a complete net economic benefit can be calculated for the Columbia River water management program. This should include the economic impacts to the farming and ranching operations inundated by the proposed storage sites.

QUESTIONS RE EFFECT TO LANDOWNERS:

- 58-3 [• Has the agencies considered the economic impact to the farmers and ranches involved by a proposed reservoir and what does those agencies figure in economic terms those will be to the effected farms and ranches inundated by the proposed dam and reservoir?
- 58-4 [• How will the project affect the active farming and ranching operations' businesses and efficiencies if they lose their land that is in a consolidated economic unit?
- 58-4 [• What environmental mitigation will be done to private lands?
- 58-5 [• What rights would the agencies involved intend to take from the existing private landowners in the inundated area of Crab Creek Dam, Reservoir and associated right of ways or easements needed?
- 58-6 [• What will the proposed projects do to the inundated farms and ranches' "Economies of Scale"? How will the agencies calculate these costs and damages?

QUESTIONS RE PROPERTY VALUATION:

- 58-7 [• What is the value of the existing state water rights in Crab Creek per acre foot and per acre?
- 58-7 [• What is the value of the privately held existing state water rights in hydro-electric generating terms per acre and per acre foot on Crab Creek?
- 58-7 [• What is the estimated land and right of way acquisition cost for the proposed reservoir?

QUESTIONS RE COMPENSATION OF LAND OWNERS:

- 58-8 [• How will the DOE and Bureau of Reclamation compensate landowners along lower Crab Creek for the economic impacts and damages to their farming and ranching operations if Lower Crab Creek Dam and Reservoir is constructed?
- 58-8 [• How will DOE and the Bureau of Reclamation compensate mineral owners for the Natural Gas and other mineral production under Crab Creek Dam and Reservoir?
- 58-8 [• Will the agencies involved replace the land and water rights taken for the proposed dam with land and water rights of equal value and priority which are similarly situated and consolidated?

- 58-8
- What will be the basis for compensation to the landowners whose lands will be taken for the proposed dam, reservoir and associated easements and right of ways?
- 58-9
- Will the agencies consider making the landowners under the proposed reservoirs shareholders in the proceeds from the hydro-electricity generated from the storage of the water on their land?
 - Will the agencies consider paying to the landowners inundated by the proposed storage sites a royalty from the hydro electricity generated in exchange for use of their lands?

Sincerely,

Devon Michel
President, Saddle Mountain Ranches, Inc.

Wellner, Joanne (ECY)

From: Devon Michel [dmichel1@hotmail.com]
Sent: Monday, October 30, 2006 9:21 AM
To: wwgray@pn.usbr.gov; Sandison, Derek
Subject: additional Comments on Draft EIS
Attachments: Commentletter10-26-06.doc

Here are some comments that are in addition to the ones I made on 10-26-06.

- 58-10
- I am also concered that the DEIS does not adequately address cumulative effects of the proposed project. As you know the cumulative effects are the impact on the environment which results from the incremental impact of the proposed action when added to the other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or Non Federal) or person undertakes such other actions. For example, the DEIS doe not appear to have addressed all of the past, present and reasonbaly foreseeable actions pertaining to the operation of the Federal Columbia River Hydropower System as it may impact endangered salmonids, even though the very purpose of the project is purported to be additional storage of water to address the impacts of that sytem.
- 58-11
- Has the draft EIS identified and considered the impact on any historical cultural resources on Lower Crab Creek below Potholes resevoir? What would be done to avoid those areas?
- 58-12
- Has the Draft EIS considered all the economic impacts to area farmers and ranchers? Have the agencies involved calculated an net economic impact to inudated area farmers and ranchers?

Sincerely

Devon Michel

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11/27/2006

Comment Letter No. 58 – Michel, Devon (Saddle Mountain Ranches, Inc.)

- 58-1. Crab Creek has not been selected as a storage location at this time. It is unlikely that any storage facility could be developed before 2020. See the Master Response regarding Future Studies for Off Channel Reservoir Proposals for the anticipated timeline.
- 58-2. Additional site-specific evaluations, including economic evaluations, will be conducted as part of specific project proposals. These studies will be completed prior to decision making. For more information, please refer to the Master Response for Future Studies for Off Channel Reservoir Proposals.
- 58-3. At this time, economic impacts are being considered at a broad, programmatic level. Additional, more detailed evaluation will be conducted as part of site-specific feasibility evaluations for specific proposals. Impacts to the local economy, including impacts to farms and ranches, will be included in these evaluations. For more information, please refer to Master Response for Future Studies for Off Channel Reservoir Proposals.
- 58-4. As noted in response to your Comment 58-1, additional environmental review will be conducted in the future and mitigation and compensation would be determined during that time if Crab Creek is selected as a storage site.
- 58-5. If the Crab Creek location were selected as a storage site, property acquisition, rights-of-way and easements would be negotiated at that time following federal and state regulations.
- 58-6. Economic impacts to existing businesses, farms and ranches, will be evaluated on a project-specific basis using broadly accepted economic tools. For more information, please refer to Master Response for Future Studies for Off Channel Reservoir Proposals.
- 58-7. At this time, the specific value of water rights in the Crab Creek area have not been calculated, nor have the estimated land and right of way acquisition costs. It is speculative to estimate the costs of acquiring land that may or may not be included within a specific project proposal. Such concerns will be addressed when a specific project arises. Please also refer to the Master Response for Off Channel Reservoir Proposals.
- 58-8. It is not possible to estimate the compensation to landowners at this time, prior to identification of specific projects. This information will be developed at the time that a specific project is identified. Any compensation for lands taken will be prepared in accordance with all applicable state and federal regulations regarding acquisition of private property for public uses. For more information, please refer to Master Response for Future Studies for Off Channel Reservoir Proposals.
- 58-9. Any discussions about payments to landowners would be conducted at the time that a specific proposal has been identified.
- 58-10. The cumulative impacts section (4.3) has been revised to be more comprehensive.
- 58-11. Section 3.10.4.2 briefly summarizes the cultural resources in the general Crab Creek region. As discussed in Section 5.1.2.9, further cultural resources investigations would be conducted

and mitigation measures would be identified at the project level if the alternative were selected.

- 58-12. The Programmatic EIS has considered the broad range of impacts associated with implementation of the Management Plan. This includes identifying short term and long term impacts and tradeoffs that could occur on a broad scale. Impacts to the agricultural economic community are included in this broad discussion. Additional economic evaluations will be conducted as part of project-specific investigations. For more information, please refer to Master Response for Future Studies for Off Channel Reservoir Proposals.

ROCKY BUTTE LAND AND CATTLE, LLC

November 25, 2006

Derek Sandison
 Washington Department of Ecology
 15 W. Yakima Ave. Suite 200
 Yakima, WA 98902-3452
 Dsan461@ecy.wa.gov

Bill Gray
 U.S. Bureau of Reclamation
 Ephrata, Washington
 wwgray@pn.usbr.gov

Dear Derek and Bill:

As co-owner of Rocky Butte Land and Cattle, LLC, I am writing to give you some formal comments as requested regarding the proposed Lower Crab Creek Dam project. My family has farmed and ranched along the Lower Crab Creek for five generations and it appears from the draft plan that the land we farm and raise cattle on would be rendered useless for the purposes if the project is constructed.

The following are some of the questions that we believe must be considered and answered in a competent and credible EIS for and proposed projects effecting Lower Crab Creek Below Potholes Reservoir to the Columbia River:

Questions RE TIME LINE & OBJECTIVE STUDIES:

- What is the time line for making a final decision of which sites will be chosen for storage?
- What impartial studies will be done on the economic impacts to each individual land owner and their related businesses and farming and ranching practices.
- Will any studies be commissioned on the economic impacts to the land owners before acquisition?
- We request that a study be done prior to any final decisions on storage projects so that a complete Net economic benefit can be calculated for the Columbia River Water Management program. This should include the economic impacts to the farming and ranching operations inundated by the proposed storage sites.
- Has the agencies considered the economic impact to the farmers and ranchers involved by a proposed reservoir and what does those agencies figure in economic terms those will be to the effected farms and ranches inundated by the proposed dam and reservoir?
- What environmental mitigation will be done to private lands?
- What rights would the agencies involved intend to take from the existing private landowners in the inundated area of Crab Creek Dam, Reservoir and associated right of ways or easements needed?
- What will the proposed projects do to the inundated farms and ranches "Economies of Scale"? How will the agencies calculate these costs and damages?

- 3 -

November 25, 2006

59-1

- We are concerned that DOE and Bureau of Rec. are creating a large project for one type of endangered or threatened species but at the expense of other threatened or sensitive plants and animals that reside in the areas to be inundated?
- Where will you replace the Wild Life refuge lands that are inundated by the reservoir?
- Were will you replace the wetlands lost to the reservoir? What will that cost?

Sincerely,

Darin Michel
 Owner/Manager

[STREET ADDRESS] • [CITY/STATE] • [ZIP/POSTAL CODE]
 PHONE: [PHONE NUMBER] • FAX: [FAX NUMBER]

Comment Letter No. 59

59-1. See responses to Comment Letter Number 58.

Sandison, Derek (ECY)

From: Harvey [harvey@roenassociates.com]
Date: Monday, October 30, 2006 4:41 PM
To: Sandison, Derek
Subject: RE: Columbia River Management Program

60-1 With all due respect, I think your answer is bull. Check the map. Spokane is closer to Hawk Creek than Colville. Maybe you should have scheduled your meeting in Davenport, Wilbur or Seven Bays. I am truly interested in these water storage projects and believe that we all deserve better opportunities to make our voices heard. Since I and many others believe that this is a bad idea, you should come here and convince me and other non believers that we are wrong.

Harvey Morrison

-----Original Message-----

From: Sandison, Derek [mailto:DSAN461@ecy.wa.gov]
Sent: Monday, October 30, 2006 3:59 PM
To: Harvey
Subject: RE: Columbia River Management Program

Mr. Morrison:

In selecting the meeting sites, I attempted identify locations near to where the major impacts associated with the program and related projects were likely to occur.

Derek Sandison
(509) 457-7120

From: Harvey [mailto:harvey@roenassociates.com]
Sent: Tuesday, October 24, 2006 1:43 PM
To: Sandison, Derek
Subject: Columbia River Management Program

Why are you not having an information workshop in Spokane?
Harvey Morrison
3805 S Lamonte
Spokane WA 99203

Comment Letter No. 60 – Morrison, Harvey

60-1. See the response to Comment 36-2 regarding meeting locations.

Mark Peterson
Peterson Law Office
103 Palouse Street Suite 5
Wenatchee WA 98801 (509) 667-8097
markp@nwi.net

Dear DOE

I am an attorney who regularly provides general council to numerous municipal providers of potable and irrigation water in Chelan and Douglas Counties. I also have a practice dominated by water right transfer work and have served on the Chelan County Water Conservancy Board. In those roles I have become intimately familiar with the needs of nearly every municipal entity purveying significant quantities of potable water in those two Counties. As these entities grow the only present practical method for them to acquire new water resource authority is to obtain irrigation rights and transfer them to municipal use.

61-1

I strongly urge the adoption of the policy that would allow waiver of instream flow restrictions on transfers or permits that shift consumptive use away from the critical period in July and August.

Conditioning such transfers and permits on instream flows in spite of the environmental benefits of such a shift is ridiculous and threatens the ability of municipal providers to continue provide for the health safety and welfare of their constituents.

11/9/2006 2:46:00 PM

Comment Letter No. 61 – Peterson, Mark

61-1. Comment noted.

Mark Peterson
see below
103 Palouse Street Ste.5
Wenatchee WA 98801 (509) 667-8097
markp@nwi.net

11/15/06 the City of Wenatchee East Wenatchee Water District Chelan County PUD Chelan County Douglas County City of Rock Island and Malaga Water District met pursuant to an interlocal agreement to create a forum for discussing and developing water resource policy. These entities discussed portions of the Draft EIS as it relates to their interests. While it is early in their process of determining the impacts and implications of the proposed policies of the EIS they wish to support the DOE in its efforts to facilitate a more refined management of water resources. These entities discussed and unanimously authorized me to make the following comments on behalf of the entities that they represent:

Section 2.2.1 Selecting Storage Projects. Ecology should aggressively pursue storage options that take advantage of peaks in the hydrograph.

Section 2.2.3 Funding Criteria. With the example of local success of the watershed planning efforts in the Entiat and Wenatchee River basins funding should focus on mitigation for permits authorizing out-of-stream beneficial use with some priority given to municipal uses.

Section 2.2.5 Conditioning Water Rights on Instream Flows. Ecology should waive the instream flow rule for new permits or change applications that shift consumptive demand away from the critical summer months. In other words a change application seeking to change irrigation to year-round municipal use should be permitted without a condition that makes the municipal water right interruptible during the winter months.

Section 2.2.7 Processing Voluntary Regional Agreements. As it relates to the Columbia River Ecology should amend the Hillis Rule to permit the processing and conversion of interruptible rights to non-interruptible rights "out of the order". This should be the primary focus before any consideration is given to processing new water rights that would presumably be non-interruptible out of order even if the new water right is sought in furtherance of a VRA (unless the new water right otherwise qualifies to be taken out of order under existing rules and regulations).

Section 2.2.8 Defining "No Negative Impact" to Instream Flows. Since a definition of "major reach" is not provided it is difficult to compare the "same pool and downstream" option with the "same major reach" option. The depictions in Figure 6-2 are misleading and give the impression that "same pool and downstream" provides the most flexibility. Ecology is encouraged to consider combining these two options so that net water savings can be recognized anywhere upstream in the same major reach however that is ultimately defined and anywhere downstream of the net water savings.

Section 2.2.9 Defining the One Mile Zone. Ecology should strongly consider including the backwater areas as described in the draft EIS. Water rights need to be treated as consistently as possible. The possibility that some water right

owners that are subject to instream flows (WAC 173-563) would be excluded from the application of the Act would be inconsistent.
Section 2.2.10 Coordinating VRA Mitigation and Processing New Water Rights. Ecology should seek legislative authority to skip pending VRA applications so the applicant is not penalized if mitigation is not available.

Section 2.2.12 Funding Projects Associated with a VRA. It is our impression that VRA's are going to be pursued by entities that can afford to implement the Agreement like the Columbia-Snake River Irrigator's Association. While the general concept behind the VRA's is supported conservation project money should not be designated only for those applicants in a VRA. Some water right owners simply are not going to participate in or understand the VRAs (suspicion of DOE runs very high). Thus Ecology is encouraged to retain the flexibility to spend conservation project money on all projects that provide mitigation.

Section 2.2.13 Inclusion of Exempt Wells in Water Use Inventory. Whether or not exempt wells are included in the analysis is simply not as critical as the other matters identified above. However in order to support investment backed expectations including lenders realtors and builders exempt wells within one mile of the mainstem that have been installed since WAC 173-563 should not be subject to interruption. If the trade-off is to consider prohibiting future exempt wells unless they participate in mitigation then that seems like a logical trade-off (but perhaps beyond the scope of this EIS).

11/16/2006 4:13:00 PM

Comment Letter No. 62 – Peterson, Mark

62-1. Your comments regarding your preferences for the Policy Alternatives are noted. See the revised Chapters 2 and 6 in the Final EIS and the responses to Comments 12-1 and Comments 9-9 through 9-19 for information Ecology's revised Policy Alternatives.

Wellner, Joanne (ECY)

From: Joan Prchal [jsprchal@yahoo.com]
Sent: Monday, November 20, 2006 4:27 PM
To: Sandison, Derek
Subject: Environmental Impact Statement

Nov. 20, 2006

Dear Sirs,

63-1 Sham on you! Not making a effort to contact the people whom this will effect. The only way I found out about this project was an article in the Capital Press.

How dare you think about take good productive farm land out of production so you can build a dam and flood it for the FISH.

The Grant Co. PUD doesn't know about this when I call about it. I believe the placing of these storage sites could jeopardize your main dams on the Columbia River.

63-2 I am tied of the Department of Ecology running around crying the sky is falling. There is allot of water coming out of Canada. You have the public and the Legislatures believing all of our water comes from the Cascades. Because Dept. of Ecology wants salmon in the basin so it can control the water. If they control the water they control the people.

Displacing thousands of family's and there way of life and income. And it becomes a rolling effect to the system. Eliminating property you eliminate taxes, money and income to schools, county and state.

63-3 Grant County PUD has a plan in effect to better get fish through the dams called Hydro Fish Bypass System which will be completed in March 2007 at Wapum Dam. Apparently the Dept. of Ecology has not talk to Grant County PUD about fish and water saving plans.

I would like you to meet with the people, Grant Co, Commissioners, and Grant Co. PUD that are involved.

A Concerned Landowner,

Joan Prchal

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11/27/2006

Comment Letter No. 63 – Prchal, Joan

- 63-1. Comment noted. See the response to Comment 36-2 regarding public notification and meeting locations.
- 63-2. Comment noted. See the Master Response regarding Future Studies for Off Channel Reservoir Proposals.
- 63-3. Ecology is coordinating with a variety of interest in the Columbia Basin, including Grant County PUD. The PUD's Hydro Fish Bypass System is one component to improve fish passage. The Management Program includes other components that would benefit the entire Columbia River Basin in Washington.

Sandison, Derek (ECY)

From: walsoe@allmail.net
ent: Thursday, November 09, 2006 8:36 AM
o: CWP; Sandison, Derek
Subject: Draft Programmatic Environmental Impact Statement For The Columbia River Water Management Program

Friends--

I wish to record in your good offices my complete opposition to any provisions in the Columbia River WMP for the creation of new dams and the resultant flooding of natural habitat. The health of the land and its human inhabitants, its flora, and its fauna depend upon our limiting agricultural and economic development to that which honors and preserves the natural world. More dams along the Columbia River do not do that.

64-1 The problems already created along the Columbia River due to dams is clear in both historic and scientific data. It is incomprehensible that we would continue on a course that further compromises natural processes and environments.

If economic development is important, then environmentally sensitive and sound ways must be found to promote it, not ways that do violence to the natural world around us. As for agricultural development, we already produce more food than we or the world requires. Until we are capable of developing ways to distribute the food we already produce, suggesting that we need agricultural growth is foolish.

Thank you.

Sincerely,
W. Thomas Soeldner
801 W. Riverside Avenue, Suite 220
Spokane, WA 99201

Comment Letter No. 64 – Soeldner, W. Thomas

64-1. Comment noted. See the Master Response regarding Opposition to Dams and Reservoirs.

Sandison, Derek (ECY)

From: Don Stewart [Dstewart@gcpud.org]
sent: Tuesday, November 14, 2006 12:55 PM
to: Sandison, Derek
Subject: Crab Creek Water Storage

Dir Sir

My name is Don Stewart, I was born and raised on Lower Crab Creek and still live there today. I work for Grant County Pud and am in my 25th year of employment. I have a small ranch and I am aware of the water issue that faces the Odessa Aquifer. I agree that we have to act now to battle against the onset problem of dropping water levels. I also am aware of the fish issues that are associated with the Columbia and Snake rivers. I have a few questions and concerns that you may or may not be able to answer. I hope that you and your staff already are aware of these issues.

I have read (what a lay person can understand) the report that Michael W West and Associates, Inc. produced from 1988 - 1997 containing earthquakes. It is titled

A Continuation of a "Pilot" study of quaternary surface deformation, Saddle mountains Anticline, Northern Pasco Basin, Washington

65-1 If the Crab Creek storage is considered, has anyone reviewed this report or anything like it? This report states that Saddle Mountain has had earthquakes ranging in magnitudes from 6.9 - 7.3. It states (quote from report)

Interpretation of late Quaternary deformation in the Saddle Mountains is significant because of the proximity to nuclear facilities on the Hanford Reservation and major dams on the Columbia River. Moreover, the fact that late Ahtanum Ridge-Rattlesnake Hills and the Saddle Mountains, raises significant questions about seismotectonic evolution of the fold belt in general and potential hazard related to other folds and faults in the region.

65-2 Question #1 If the Crab Creek storage is done, The weight of the reservoir on the plate north of the Saddle Mt fault line. (impossible to answer)? I have taken an interest in the faults associated with Saddle Mountain and have seen new creeks at different locations show up over the years. The Mountain is moving.

65-3 Question #2 The Ice Cave on lower Crab Creek expels a flow of cold air at approx four locations. With air flow coming out, with enough pressure, the flow possibly will move in the opposite direction.

(Rumor has it) The latest gas well drilled on Walluke slope penetrated a large layer of ice at a deep level between layers of basalt. With the possible flow of water to the layer of ice, Could the Hanford Storage be in jeopardy? The Hanford site is 6 to 7 miles south from the reservoir east end.

65-4 Question #3 The added flood easement being expanded to the Crab Creek drainage. Has a Hydrostratigraphy study of lower Crab Creek been done? Going from I believe 2000 to 10,000 cfs could develop added water elevations not only downstream areas but to other subbasins. Also would dredging the creek be done?

Thank you for you time. I am also signed up with email at scstewart@qosi.net

Don D. Stewart
 15908 Rd. E SW
 Royal City Wa
 99357

Comment Letter No. 65 – Stewart, Don D.

- 65-1. The Crab Creek off-channel reservoir site is being studied under a separate process by Ecology and Reclamation. See the Master Response regarding Future Studies for Off Channel Reservoir Proposals. Seismic studies are included as part of the appraisal studies for the Crab Creek site.
- 65-2. See the response to Comment 65-1.
- 65-3. Potential impacts to the Hanford site will be considered in the appraisal study for the Crab Creek site.
- 65-4. Hydrologic studies will be part of the future studies done on the Crab Creek site. It is not known at this time whether Crab Creek would be dredged if it were selected as a storage site.

Sandison, Derek (ECY)

From: kelly tansy [kellyt99201@yahoo.com]
ant: Saturday, November 18, 2006 10:32 AM
ro: Sandison, Derek
Subject: Columbia River Draft EIS comment

66-1

Please don't build or re-build the dam, otherwise critical wildlife habitat will be threatened or destroyed. Our state needs this area wild. I want the area to be safe from human destruction. I am confident that human needs will be respected while this area can remain healthy and safe for the plants and animals that live there.

Sincerely,
Mr. Kelly Tansy
Spokane, WA.

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Comment Letter No. 66 – Tansy, Kelly

66-1. Comment noted. See the Master Response regarding Opposition to Dams and Reservoirs.

Jan Treecraft
self
1203 West 16th Avenue
Spokane WA 99203 (509) 624-3730
jaberspo@icehouse.net

When I hear of the possibility of a new dam being built I feel dismayed and discouraged. I also feel alarmed. My need here is for protection of existing wild areas including the health of the rivers themselves. My husband and I love to hike and camp. Eastern Washington offers many possibilities for these activities and also for the hunting and fishing that many of our friends engage in. We have friends who literally feed themselves through much of the year with the game they hunt themselves.

I feel a sense of urgency with regard to preserving our natural resources for generations to come. I want this preservation to be prioritized ABOVE any desire to stay at current levels of resource use. We use far more than is necessary at this time.

It is my belief that with conservation alone we can get by without any more dams and perhaps without some that we already have. Please refer to Leroy Brown's informative and hopeful work including his very up-to-date work "Plan B 2.0."

Thank you for this opportunity to respond. Please with the power that you have respond to the long-term needs of the populations of this area. Please act as fierce stewards of the natural world.

Sincerely,

Jan Treecraft

11/18/2006 3:46:00 AM

67-1

Comment Letter No. 67 – Treecraft, Jan

67-1. Comment noted. See the Master Response regarding Opposition to Dams and Reservoirs.

Ann Root

From: Wellner, Joanne (ECY) [JWEL461@ECY.WA.GOV]
Sent: Tuesday, December 05, 2006 12:33 PM
To: Ann Root
Subject: Cathy Verret: New Columbia River dams aren't the answer!

Joanne R. Wellner, Dept. of Ecology-CRO
15 W. Yakima Avenue, Suite 200
509/575-2680 509/575-2809 fax
jwel461@ecy.wa.gov

From: Cathy Verret [mailto:cverret@prodaware.com]
Sent: Thursday, November 16, 2006 12:42 PM
To: Sandison, Derek
Subject: New Columbia River dams aren't the answer!

I am adamantly opposed to the proposition that new dams be built on the Columbia River at several sites: Hawk Creek in Lincoln County, Foster Creek in Douglas County and Sand Hollow and Lower Crab Creek in Grant County.

68-1 Construction of these dams would inundate thousands of acres of prime wetlands and shrub-steppe habitat. These habitats are critical for several endangered species including the pigmy rabbit, sage grouse and spotted leopard frog. Prior to development and agriculture in Washington State, there was 10.4 Million acres of shrub-steppe habitat. In 1996, a study found that only 4.6 million acres of shrub-steppe habitat remained. Today, the amount of shrub-steppe habitat is unknown, but there has been significant loss to agricultural conversion. These dam projects would only add to the amount of lost habitat.

68-2 Ecology and the USBR say that water stored behind these dams would be available for salmon augmentation flows and would ultimately help in salmon recovery efforts. However, water stored in these reservoirs could actually cause more problems. The reservoirs are shallow and would result in high water temperatures that are actually a problem for salmon. Constant filling and emptying of these reservoirs would cause major sedimentation issues that could cause additional problems for salmon recovery efforts.

It's a bad idea.

Cathy Verret
2450 Foster St
Eugene, OR 97405

Comment Letter No. 68 – Verret, Cathy

- 68-1. Comment noted. See the Master Response regarding Future Studies for Off Channel Reservoir Proposals.
- 68-2. Water quality impacts of the proposed storage facilities will be evaluated in future environmental review if a reservoir site is selected.

November 17, 2006



Derek I. Sandison, Regional Director
 Central Regional Office
 Washington State Department of Ecology
 15 West Yakima Avenue, Suite 200
 Yakima, WA 98902

Dear Mr. Sandison:

Attached for your consideration are comments on the Draft Programmatic Environmental Impact Statement for the Columbia River Water Management Program. These comments focus on Chapter 6.0, "Policy Discussions" and specifically on the storage and water conservation items.

My interest stems from having been involved in the Bureau of Reclamation-Washington State Department of Ecology Yakima River Basin Water Enhancement Project activities of the 1980's and 1990's culminating with Title XII of the Act of October 31, 1994. This interest has continued since my retirement with some involvement in Yakima River basin water resource activities.

Thank you for the opportunity to provide input on some of the policy issues of the Columbia River Water Management Program.

Sincerely,

Larry
 Larry Vansonhaler
 2567 Lynx Way
 Boise, Idaho 83705

Chapter 6.0 Policy Discussion

6.2 Selecting Storage Projects

69-1 The question being addressed is "how aggressively Ecology will pursue storage projects?" The most proactive role put forth in the Draft Programmatic Environmental Impact Statement (DPEIS) for the Washington Department of Ecology (Ecology), in addition to reviewing and screening storage projects proposed by applicants, is to propose storage options independent of those proposed by applicants. The illustration presented in the DPEIS is to use watershed plans to identify and pursue smaller storage projects (emphasis added), purchase stored water in Idaho and/or Canada, consider buying or negotiating changes in operations of federal facilities, consider studies for ASR or passive ground water recharge, and promote small scale projects that benefit small landowners.

If the foregoing illustrations define the most proactive role, then Ecology is truly not aggressively addressing the State's present and future water needs. It raises the question of the extent of Ecology's current role in the Columbia River off-stream storage assessment. It is suggested Ecology's role should be broadened to aggressively identify water resource needs, water supply deficiencies, and to pursue water storage projects in conjunction with federal and other interests through the investigation and development of storage projects.

Sections 6.2.1, 6.2.2, 6.2.3, and 6.2.7

69-2 Sections 6.2.1, 6.2.2, 6.2.3, and 6.2.7 are so interrelated they must be considered conjunctively. These sections and their interrelationships follow:

- A question addressed in Section 6.2.1 is "what are net water savings?" Are they only the consumptive use portion of conserved water or are they something broader in scope?
- Section 6.2.2 raises the following questions: (1) to what purposes will net water savings achieved from conservation projects funded from the Columbia River Water Supply Development Account (Account) be assigned, will it be to out-of-stream purposes only, to instream purposes only, or a combination of these purposes; and (2) how will proposed conservation projects be screened and ranked for funding from the Account?
- Section 6.2.3 addresses the definition of water acquisitions and water transfers. This is because the Columbia River Management Act (Act) restricts the area of use of acquired and transferred water obtained with funds from the Account to the Water Resource Inventory Area (WRIA) of origin.
- Section 6.2.7 deals with the aerial extent of the "no negative impact" on Columbia River July-August stream flows and Snake River April-August flows associated

69-2 with water withdrawals under Voluntary Regional Agreements (VRA). The question is how and where to measure whether a withdrawal results in a net reduction in stream flow in the Columbia and Snake Rivers during the foregoing respective months.

6.2.1 Calculating Net Water Savings from Conservation

Net water savings has been defined in the Trust Water Rights Program; the methodology for calculating it has not. This calculation is extremely critical to the extent conservation measures will assist in meeting out-of stream and instream water needs.

The Columbia River Water Supply Inventory and Long-Term Water Supply and Demand Forecast Report identifies a potential water savings of 955,000 acre-feet from plans of conservation districts (on-farm measures of about 530,000 acre-feet) and from irrigation districts (main conveyance and distribution system measures of about 425,000 acre-feet). If one were to assume that conservation projects resulting in conserved irrigation water of 955,000 acre-feet is the primary source of meeting present and future irrigation demands, it is an erroneous assumption.¹

69-3 The irrigation district water saving estimate is essentially system losses from the point(s) of diversion to the farm deliveries, the major portion of which return to the river system as surface and sub-surface return flows. As such, the effect of reducing main conveyance and distribution system losses diversions is (1) in an unregulated river system to increase stream flow from the point(s) of diversion to the point(s) where return flow from the conserving entity reenters the river system, and (2) in a regulated river system to also permit the possible retention of the stored water portion of the diversion which would have otherwise been released. An example of the latter is the Yakima and Naches River systems regulated by 5 reservoirs with about 1 million acre-feet of storage capacity. There is merit in considering conservation projects in conjunction with storage space to regulate conserved water.

It appears entity conservation projects dealing with main conveyance and distribution system measures may not result in net water savings beyond specific stream reaches of the tributary if any diminishment of the existing flow regime downstream of the point(s) of return flow from the "action" is a constraint. This is because the conserved water results from a nonconsumptive use rather than from a consumptive use. If this were the case, then even a portion of the saved water on regulated tributaries which could be retained in storage facilities may have to be released to maintain existing stream flow. The potential constraint of no diminishment of the downstream flow regime must be addressed.

It appears net water savings are appropriately defined by the Trust Water Program. However, the method of determining net water savings must include more than

¹ The reasons that the 955,000 acre-feet does not all equate to net water savings is aptly explained in the Executive Summary of Ecology's Report on pages ES-10 and 11.

69-3 quantifying the conserved water. Other factors such as the characteristics of the water supply (unregulated and regulated), water rights downstream of the point(s) of diversion and return flows, the policy regarding diminishment of existing stream flow, and the location of the conserving participant (unregulated or regulated tributary or the Columbia River) also needs to be assessed. Neither alternative appears to express the factors which may be needed to determine net water savings. However, it is noted, the Executive Summary on page ES-11 recognizes the need for flexibility in matching individual conservation projects and water right applications.

6.2.2 Funding Criteria for Conservation Projects

This section deals with two issues (1) assignment of net water savings funded from the Account, and (2) criteria for screening and ranking conservation projects. These two issues are discussed below.

Assignment of Net Water Savings

It is assumed conservation projects could be implemented on Columbia River tributaries or on the main-stem river. With respect to tributaries, it appears consideration needs to be given to whether it is an unregulated or regulated tributary and the policy regarding the diminishment of stream flow downstream of the point(s) of return flows of the conservation project participant.

69-4 In figure 6-2 of the DPEIS, alternative 4C-1 indicates the hypothetical point where net water savings would occur and the point where net water savings would be measured for a tributary project. It is possible, the only net water savings resulting from tributary projects which would extend downstream of the mouth of the tributary may, depending on how net water savings are computed, be just the consumptive use portion associated with on-farm conservation projects. If so, the magnitude of net water savings from conservation projects would be significantly diminished. It may then be desirable to assign all of the net water savings to mitigation of Columbia River permits authorizing out-of-stream beneficial use. There would of course be instream flow benefits in the tributary.

It seems there may be the need for further assessment of net water savings prior to making a determination of how these savings are to be assigned. As referenced in the foregoing comments on Chapter 6.2.1, the DPEIS indicates the need for flexibility in matching individual conservation projects with water right applications. Such flexibility may also be desirable in assigning net water savings within some specified parameters.

Criteria for Screening and Ranking Conservation Projects

69-5 In regards to the criteria for screening and ranking conservation projects it is suggested Ecology's Columbia River Policy Advisory Group may want to review appropriate sections of the document prepared by the Yakima River Basin Conservation Advisory

69-5 Group entitled *The Basin Conservation Plan for the Yakima River Basin Water Conservation Program* and the *Appendix to the Basin Conservation Plan*.

6.2.3 Defining Acquisition and Transfer

The concern expressed is that the Act prohibits Ecology from expending money from the Account on conservation projects that will result in water acquisitions or transfers from one WIRA to another. The term "water acquisition and transfer" is not defined by the Act. However, it is defined to include net water savings realized from conservation projects then use of such net water savings is restricted solely to the WIRA of origin.

69-6 In the Yakima River basin water acquisitions and water transfers are considered separate transactions from water realized from conservation projects. In this instance there is federal legislation authorizing the Yakima River Basin Conservation Program and funding and implementation of conservation projects is contingent on "diversion reduction agreements" with the participating entity specifying the use of the conserved water, in this case two-thirds to instream flow and one-third retained by the irrigation entity. Further, conserved water is being used within the Yakima River basin.

It seems desirable to define water acquisitions and transfers as those related to direct purchase and/or gift separately from conservation projects in which case under the Act the water could only be used in the WIRA of origin. By so doing, this would result in the option of net water savings from conservation projects being used in other WIRA's. However, it is suggested this entire matter be referred to the State legislature with the suggestion that the restriction on the area of use of water acquisitions and transfers in solely the WIRA of origin be amended.

6.2.7 Defining "No Negative Impact" to Instream Flows of the Columbia and Snake Rivers

This issue concerns the question of the measurement point to determine if a proposed water withdrawal has an impact on the policy of "no negative impact to stream flow" in the Columbia River in July and August and the Snake River in April through August as the result of a Voluntary Regional Agreement (VRA). How and where to measure the "no negative impact" has not been defined. It is indicated however, that net water savings from a tributary conservation project would be measured at the mouth of the tributary.

69-7 Figures 6-2A and 6-2B of the DPEIS illustrates the four alternatives presented in section 6.2.7. It seems appropriate to align the area of consideration for determining impact with the management units for instream flow in WAC 173-563-040 (1) as illustrated in Alternative 4C-2 of Figure 6-2A.

The 6.2.7 discussion is confined to the legislative policy of "no negative impact" to instream flows in specified months as a result of a VRA. But Ecology raises further

questions of legislative authority as to the non-specified months on page 4-49 of the DPEIS as follows:

The administrative rule for the Columbia River establishes instream flows for all months of the year, not just July and August. By providing that if a new water right does not have a negative impact on the Columbia River flows during the months of July and August, impacts to instream flows have been mitigated, the legislature decided that water is available during the other ten months of the year. Further, by directing Ecology to only consider impairment of instream flows during the referenced summer months, the legislature has effectively made an overriding consideration of the public interest determination that the adopted instream flows outside of July and August will not be protected.

69-7 This appears to be inconsistent with RCW 90.90.030(8), which prohibits any interpretation or administration of the section regarding VRAs "that impairs or diminishes a valid water right or a habitat conservation plan for purposes of compliance with the federal endangered species act."

The Ecology views quoted above are an interpretation of legislative intent on a fundamental and critical foundation policy of the Act. It appears the "no negative impact" policy should be clarified by the Legislature for all months of the year in relation to new water right applications as may be filed with Ecology within or outside of a VRA process.

While the question of how to measure the "no negative impact" policy is not addressed, it seems clear there is to be no net reduction in flow in the specified months. However, what is the baseline against which this is to be measured? Is this to be based on some historical flow period of monthly averages such as used in the Federal Columbia River Power System Biological Opinion, or some other base?

Comment Letter No. 69 – Vinsonhaler, Larry

69-1. See the response to Comment 12-1.

69-2. See the responses to Comments 9-8, 9-9, 9-10, and 9-14.

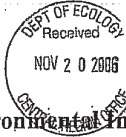
69-3. See the response to Comment 9-8.

69-4. See the response to Comment 9-8.

69-5. See the response to Comments 9-9 and 21-15.

69-6. See the response to Comments 9-10 and 21-17.

69-7. See the response to Comment 9-14.



Comment Form

Draft Programmatic Environmental Impact Statement (EIS)

Open House

Please provide us with your comments on the Draft Programmatic EIS for The Columbia River Water Management Program. You can complete this form and leave it in the box provided or mail to the address on the back. In addition, you can email your comments to dsan461@ecy.wa.gov.

Comments on the Draft EIS must be received by 5 p.m. November 20, 2006.

70-1 When in college I studied Geology and did research on the Columbia River Basin in Washington. Why start another LAND GRAB when you have not completed the previous Columbia Project.

70-2 The eventual cost of building a dam in the Hawk Creek area could be prohibitive as the eventual sloughing-off of the hillsides fill the water basin unless extensive construction of walls to hold back rocks and soil are completed and kept in excellent condition.

Don't forget the Eagles that nest in the lower Hawk Creek area. They may not survive the disturbance of their habitat.

70-3 In 1985 I finally earned and saved enough money to begin building my leg home on the inside corner of Hawk Creek & Whitney Roads. It is for myself and family. It cannot be moved (without tearing it down) just because a few people have decided to take our property for the benefit of other people.

Our Family has lived on Stock Creek or Hawk Creek since 1948

Department of Ecology
Attn: Derek Sandison
15 West Yakima Avenue, Suite 200
Yakima, Washington 98902

Department of Ecology
Attn: Derek Sandison
15 West Yakima Avenue, Suite 200
Yakima, Washington 98902

Follow progress on the EIS at our website <http://www.ecy.wa.gov/programs/wr/cwp/crwmp.html>.
Provide your contact information- you will be added to the CRWMP e-mail list and receive automatic updates on the Program.

Name: Helen Whitney Virgin, Ph.D.
Address: 22583 Whitney Rd E.
City, State, Zip: Davenport, WA 99122
E-mail: None

Comments must be received by 5 p.m. November 20, 2006.
Please return this comment form tonight or mail to the address above.

Comment Letter No. 70 – Virgin, Helen, PhD

70-1. Comment noted.

70-2. The Hawk Creek site has not been selected for a reservoir site and is undergoing additional studies for feasibility. See the Master Response regarding Future Studies for Off Channel Reservoir Proposals.

70-3. Comment noted.

COMMENT LETTER NO. 71

Lynn Fackenthal Wells
self
5924 Homestead Way
Nine Mile Falls WA 99026 (509) 467-2571
lynnfwells@juno.com

71-1

Please do not consider creating more Dams. In Lake Spokane (created by Long Lake Dam in 1917) we have many issues with noxious weeds and sediment buildup. Creating a new Dam will further degrade the immediate area and the BENEFIT has not been shown to the majority of people adversely impacted.

11/20/2006 11:23:00 AM

Comment Letter No. 71 – Wells, Lynn Fackenthal

71-1. Comment noted. See the Master Response regarding opposition to dams.

Sandison, Derek (ECY)

From: Barbara Winkle [Barb@rockwoodretirement.org]
Date: Sunday, November 19, 2006 10:09 PM
To: Sandison, Derek
Subject: Regarding the construction of new dams in our state.

Derek Sandison
 Department of Ecology CRO
 15 W. Yakima Ave., Suite 200
 Yakima, WA 98902-3452

Dear Mr. Sandison,

As a Sierra Club member, and also one involved with environmental issues through my church, I would like to add my voice to those who are very concerned about possible new dam construction in our state - in particular, right now, on the Columbia River. We human beings tend to take so much, and take much of what we have for granted, then full speed ahead, grabbing even more - regardless of who or what we have to destroy to get it. Ironically we are the species who know, or at least should know just how interconnected all life is to each other, and how important that connection is. And yet we seem not to have realized that so many of our actions have resulted in our not only "messing our own human nest", but the nest of all life on this planet.

Dams have given us some wonderful benefits, I wouldn't deny that, but we need to focus more on other means of obtaining energy, ways to obtain water, ways of conserving in many areas of our life - and use our intelligence & common sense to re-define how we will live. We can actually have a better life working towards preserving and protecting our environment.

We may be at the top of the food chain, but when those supposedly below us start to collapse, we won't be far behind - and we'll take with us the shame that we had choices that other life forms did not. We just didn't have the strength of character to care enough to make the right choices.

Some destroy lands that support a diversity of species, including endangered wildlife. These habitats on the Columbia Plateau be protected from development. How much land do we have to grab? How much will be enough? We do not have the right to ...doze, pollute or poison other life forms from this planet. They are important in their own right. As with so many other areas on this earth, these last pockets of the Columbia Plateau habitat are valuable and should be protected from development.

I am sure that those involved in this decision have heard all of the pros and cons - many arguments stated well by those who really know details of both the benefits and dangers. I know that other comments and arguments have been presented, so I won't list all that I have researched in favor of my argument. But just to say that we all know that dams do not help fish. And more dams - well... And the release of this so-called "new water"? Won't help - there is not enough available water as it is and if our global environmental status in general continues "status quo" or worsens, we might one day, have to rename the Columbia River, the Great Dry Run.

Our state needs to do more to promote sustainable earth friendly agricultural methods that will allow the production of (& most likely, healthier) crops and/or livestock while preserving and improving the ecosystem, including maintaining soil fertility, as well as water quality and quantity, preserving biodiversity, and otherwise protecting natural resources. With thought, determination, and heart, it can be done.

Please, reconsider the many negative impacts of new dam building - and please take into consideration, the intrinsic value of all life, and the right of all species to that life. It will make us better human beings, not only from a practical standpoint, but more importantly, from the standpoint of the character of our souls - for this time and for the future. Thank you for considering this letter.

Respectfully yours,

Barbara Winkle
 3231 W. Boone Avenue #911 Spokane, WA 99201-3111
 Home: 328-6624

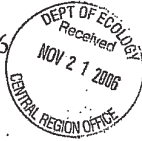
This is my work e-mail address. If any response, feel free to e-mail or use my home address.

11/25/2006

Comment Letter No. 72 – Winkle, Barbara

72-1. Comment noted. See the Master Response regarding opposition to dams.

NOVEMBER-16-2006



DEREK.

73-1

After reviewing some of the maps and listening to some of the citizens whom attended your meetings in the towns, which by the way were not held next to where the people will be impacted.

73-2

I realize this is yet another bureaucratic democratic waste, not only of my tax dollars but of the time and resources of many people and nature. For one you people have yet to show me, a land owner two pieces of paper that are consistent with one another. Are these dams for power generation, are they for irrigation, or are they for salmon recovery? They can not be for all three at the same time. Simple plans exist for answers to all three of the problems poised above but you narrow minded democratic politicians cant seem to understand common sence. And i for one will not support you nor will many others support you in your efforts to fast track an idia brewed up by a bunch of people whom havent a clue to solving what the real issues are and refuse to look not only at ideas and programs that are working but to realize that change although inevitable is not the best for all people involved. Many questions remain to be asked on this project but alas i myself am very passionate to the point of anger and would only cause a big disturbance if i was to attend your meetings, which i would like to do with my father but him being 87 years old and unable to travel the distance to attend them to voice his opinion backed by years of wisdom is something that is not possible at this time. [Did i mention both him and I are land owners?] I understand the Dept. of Ecology is given the task to protect the natural resources of the United States, which i personally feel is an agency totally out of control and needs to be reigned in drastically, why are you doing this investigation? Have you ever stopped to look at what will be lost forever if you put these dams in? Natural habitat for thousands of animals and birds some endangered and some you will never know about because you have never spent time walking where i have walked next to the land that will be flooded and listened to the sounds of nature and to spirit of the land and the souls that dwell their. [Read burial grounds in the last sentence]. A suggestion to you Derek, why dont you make a stand if you are for these dams, then stand up and say i am for them and this is why and these are the reasons for such, try to convince me of the wisdom of your plan. However, if you are against these dams then why dont you make a stand and remove yourself from the podium go to your supervisor and proclaim that due to the conflict of my personal ethics i can no longer work on this project, and if it means securing another job, so be it. How much forituide do you posses Derek? Probably not as much as is needed to do what i suggested you to do. I on the other hand posses a lot and am willing to make a stand and fight to the end a bunch of democratic bureaucratic idiots who can call this idea theirs. This is a loose loose program stop the program quite wasteing the money now and put it into the programs that are working and into research to find some new answers to the above problems, finish the columbia basin project as devised years ago, sorry dude it never got done. DON'T however try to cover my land with water it wont be an easy thing to do.

73-3

A handwritten signature in black ink, appearing to read "Derek".

Comment Letter No. 73 – Indecipherable Signature

73-1. See the response to Comment 36-2 regarding public notification and meeting locations.

73-2. Ecology is implementing the Management Program that was enacted by the state legislature. Impacts to the resources you mention will be evaluated in future project level review (See Section S.4 of the Final EIS).

73-3. Comment noted.



Comment Form

Draft Programmatic Environmental Impact Statement (EIS)

Wenatchee Open House

Please provide us with your comments on the Draft Programmatic EIS for The Columbia River Water Management Program. You can complete this form and leave it in the box provided or mail to the address on the back. In addition, you can email your comments to dsan461@ecy.wa.gov.

Comments on the Draft EIS must be received by 5 p.m. November 20, 2006.

Conditioning Water Rights on in-stream

flow -

Policy Alt # 2 is the most

practical and beneficial for

municipal users while still giving

reasonable protection to in-stream flows

Comment Letter No. 74 – Anonymous

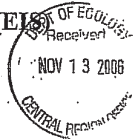
74-1. See the response to Comment 9-11.



Comment Form

Draft Programmatic Environmental Impact Statement (EIS) OF ECOLOGY RECEIVED

Open House



Please provide us with your comments on the Draft Programmatic EIS for The Columbia River Water Management Program. You can complete this form and leave it in the box provided or mail to the address on the back. In addition, you can email your comments to dsan461@ecy.wa.gov.

Comments on the Draft EIS must be received by 5 p.m. November 20, 2006.

To whom it may concern:

I live in Hawk Creek Canyon and built in 2000 - Since then I have built a horse ranch with over 500 RR trees for fences and buildings for my horses when I heard about the proposal I was just sick because I was born and raised in this area and it has been my home for 55 years.

Hawk Creek is a beautiful area and creek. It would be such a loss to my family and grand children who also live in Hawk Creek.

PLEASE RECONSIDER!

Why was the meeting held in Colville ???
I didn't hear about it!
Frank Yarn
John E. Johnson
36550 Hawk Creek Rd

75-1

75-2

Comment Letter No. 75 – (Indecipherable First Name) Johnson

75-1. Hawk Creek has not been selected as a reservoir location and is undergoing additional feasibility studies. See the Master Response regarding Future Studies for Off Channel Reservoir Proposals.

75-2. See the response to Comment 36-2 regarding meeting locations and public notification.

DOE 10-24-06

1 MR. LOUIS NEVSIMAL, Washington State Bass
2 Federation, Consu. Project Manager: My first comment is
3 most of the water being diverted in this project will pass
4 through Banks Lake Reservoir as its first step from the
5 Columbia. This will increase flows through Banks Lake
6 approximately 20 percent.

7 There are comments in the draft that indicate that
8 Banks Lake may be operated two feet higher than current pull
9 restrictions allow. There are also comments they may
10 operate lower than their current restricted low levels
11 without need for an EIS and as required, quote, unquote, out
12 of the document.

13 Both of these operations on Banks Lake would have
14 adverse effects on fisheries as well as economic impacts on
15 resorts and tourism. Some of them would require significant
16 mitigation to flooding of low lying resort areas.

17 The current draft EIS is woefully inadequate on the
18 studies of the effects of warm water species within Banks
19 Lake, Potholes Reservoir, as effected by this document.

20 More information is displayed in the draft on carp
21 issues than any other warm water species. We find this to
22 be unacceptable.

23 Current studies on Banks Lake indicate that photo-
24 plankton, zooplankton, and chronic mid levels are low and
25 fluctuate dramatically with irrigation demands.

DOE 10-24-06

1 We are concerned that increase in water through Banks
2 Lake would further deplete these current base items of the
3 food chain.

4 We are concerned with increased entrainment and would
5 hope this would lead to better fish exclusion devices on
6 Banks Lake. And we are very concerned with the designated
7 effects on wetlands and other critical or essential
8 habitats.

9 It would benefit the final draft document of this EIS
10 to indicate to some degree projected watt of levels under
11 this plan for Crab Creek, Potholes Reservoir, Scootney
12 Reservoir, Billy Clap Reservoir and Banks Lake.

13 That's about all I have right now.

14 MS. TERESE SCHROM: Our first question is what
15 considerations have been done as far as the families that
16 would be displaced? We have very old farms down there.
17 They are probably some of the oldest in the county.

18 And the second question is what does your evaluation
19 process do to our property values?

20 MS. ANITA SATHER: So what I wanted to add to
21 that was that we get the appraisal study in March and it
22 looks like it's going to be a definite, then nobody wants to
23 buy our property.

24 What kind of consideration is it -- whoever is doing
25 it, ecology or whoever, what kind of consideration are they

DOE 10-24-06

76-7 [1 working on to make that easier?

2 MS. TERESE SCHROM: To add on to that, we operate
3 a farm, we need to make improvements. Will we be able to go
4 to a bank and make improvements to keep our livelihood up as
76-8 5 this whole process goes? Or is it going to be -- they are
6 going to say no, we are not going to loan you money for
7 improvements because everything is up in the air?

8 MS. SHIRLEY STEWART: I'm concerned with the
9 future of our ranch; that I have a son and grandsons that
10 are wanting to run it after this, how much time they've got
76-9 11 or if it really is going to happen?

12 We're in the cattle business and you have to look to
13 the future of developing the place for more, if it's
14 feasible. I guess that's my comment.

15 MR. M. L. SEROSKY: I want to say that anything
16 and everything here is all tainted towards the government's
17 view of things. And dealing with the Milwaukee Railroad
76-10 18 right-of-way, I am rather bitter at the way things are
19 tainted towards the government. And I am also a resident of
20 Smyrna and a water user. And I am in opposition to this
21 project.

22 An ungrateful rebellious dissident, truly yours, me.

23 (Proceeding concluded at 6:30 p.m.)
24
25

DOE 10-24-06

1 REPORTER'S CERTIFICATE

2
3 I, CATHY S. OLSEN, Certified Court
4 Reporter, do hereby certify:

5 That the foregoing proceedings were taken
6 before me at the times and place therein set forth;

7 That the testimony and all objections made
8 were recorded stenographically by me and were thereafter
9 transcribed by me or under my direction;

10 That the foregoing is a true and correct
11 record of all testimony given, to the best of my ability;

12 That I am not a relative or employee of
13 any attorney or of any of the parties, nor am I financially
14 interested in the action;

15 IN WITNESS WHEREOF, I have hereunto set my
16 hand and affixed my official seal this 6th day of November,
17 2006.

18 Cathy S. Olsen
19 CATHY S. OLSEN, CCR
20 CCR # 1929
21 Notary Public in and for the
22 State of Washington, residing
23 at Wenatchee.

24 My commission expires on November 1, 2009.
25

Comment Letter No. 76 – Transcript Moses Lake Public Open House

- 76-1. **Louis Nevsimal** See the response to Comment 29-1.
- 76-2. See the response to Comment 29-4.
- 76-3. Comment noted. Additional information on Banks Lake has been included in the Final EIS.
- 76-4. The projected water levels for Crab Creek have not yet been determined and are the subject of a study and environmental review being performed by Reclamation as part of the Supplemental Feed Route Study. The proposal to withdraw 30,000 acre-feet for Odessa Subarea groundwater users could slightly change operating levels in Banks Lake; however, the future operating levels have not been determined and are subject to an environmental review that Ecology will prepare for the drawdown proposal. Billy Clapp Lake is small and does not have significant storage and the water levels would not likely change for this drawdown proposal. The water levels for Potholes Reservoir should not change as no additional water is being delivered to Potholes with this proposal. The water level for Scootenev Reservoir also will not change as the operations of the East Low Canal would not change near its terminus.
- 76-5. **Terese Schrom** If a reservoir location is selected at Crab Creek, compensation for property acquisition and displacement would be negotiated according to federal and state regulations. Impacts to existing residents, including displacement impacts, would be incorporated into site-specific studies of reservoir alternatives.
- 76-6. The impact of the studies on property values is difficult to predict. Because of the high degree of uncertainty about locating a reservoir at any of the locations, it is unlikely that property values will be affected in the short-term. See the Master Response regarding Future Studies for Off Channel Reservoir Proposals for the expected timeline of studies, including future economic studies. Site specific impacts, including potential impacts to property values, will be incorporated into the feasibility analyses and environmental evaluations for specific reservoir proposals.
- 76-7. **Anita Sather** See the response to Comment 76-6.
- 76-8. **Teresa Schrom** All proposed projects will be evaluated in terms of economic cost-effectiveness. Impacts to property owners, including potential for displacement of homeowners, will be incorporated into this analysis. Impacts to property owners resulting from proposed projects associated with the Management Program will be mitigated in accordance with applicable federal and state guidelines. Implementation schedules for proposed projects will be publicly available, and project proponents will coordinate with all potentially affected property owners, to reduce uncertainty and provide notification well in advance of proposed actions. Ecology acknowledges the potentially disruptive effects on property owners and will work with them to reduce impacts to their livelihood as proposals are being evaluated.

- 76-9. **Shirley Stewart** See the Master Response regarding Future Studies for Off Channel Reservoir Proposals for the anticipated timeline.
- 76-10. **M.L. Serosky** Comment noted.

COMMENT LETTER NO. 77

From: Paneen Allen [mailto:paneenallen@msn.com]
Sent: Monday, November 20, 2006 9:32 AM
To: Sandison, Derek
Subject: Columbia River Water Resource Management Program

TO: Washington State Department of Ecology
FM: Paneen Allen
RE: Proposed Dam of Hawk Creek Canyon

I am a resident of Hawk Creek Ranch. The proposed dam is an example of short sightedness. The US Government has not taken on such a project in decades. In fact, we can't even build a wall along our southern border. We need to think of other ways to solve the water needs of the agricultural industry that is located outside of Lincoln County.

Your stated objective "Sustains growing communities and a healthy economy and meets the needs of fish and healthy watersheds." Growing beyond the sustainability of the natural resources is surely illogical. And, it seems that the Dept of Ecology is playing God, trying to make a garden in the desert and full it with people beyond natural capacity. It is absurd. Perhaps Washington should also try to grow bananas, pineapples, coconuts and coffee.

Solutions. Stop pushing growth. Just say no to more water use. The bigger the farms, the more illegal aliens will flood here to pick the fruit, the more water they will need to use. Improve existing irrigation systems. Use non-violent prison labor to pick fruit and work on upgrading the existing irrigation. Why not dig a reservoir near the places that need water? A driving trip into the heart of the Washington desert reveals less inhabited and closer sites for a reservoir than Hawk Creek.

First you propose to build a huge dam. (billions of dollars). Then pump water from the Columbia River into the reservoir. Then pump the water many miles to the areas in need. (billions of dollars) We may as well construct a canal from the Columbia and divert a portion to the desert like what was done to the Colorado River. Digging a reservoir closer to the needed areas (billions of dollars) and pumping water from the Columbia (billions of dollars) could be cost effective. And, there are the long-term maintenance of the dam and pumping stations that will cost forever.

Who will pay for this project? -Tax payers from Florida? The farmers? The Yakima Valley residents? I know that the residents of Hawk Creek will be paying hefty legal fees to stop this absurd dam project. It is rather deceitful that none of the residents of the effected areas have had any notification nor been invited to attend any of the meetings that you have conducted.

We understand that your department is just trying to solve a problem that exists all over the world, even in the animal world - "who gets the water?" Surly the highly educated minds of your department can be creative and design a water use plan that has less environmental impact. Obviously the old model of "dam and pump" has not worked.

Paneen C. Allen

Comment Letter No. 77 – Paneen C. Allen

- 77-1 See the Master Response regarding Future Studies for Off Channel Reservoir Proposals.
See the response to Comment 36-2 regarding meeting locations and notification.

COMMENT LETTER NO. 78

From: Paneen Allen [mailto:paneenallen@msn.com]
Sent: Monday, November 20, 2006 9:33 AM
To: Sandison, Derek
Subject: Columbia River Water Resource Management Program

TO: Washington State Department of Ecology

FM: Baron Allen

RE: Proposed Dam of Hawk Creek Canyon

Our family was driven out of Southern Arizona because the Federal Government would not enforce immigration law. Violence and crime became so pervasive that we couldn't even go for a walk in the desert. I had to guard our son at the bus stop because there might be young men walking down the highway from Mexico, some sporting gang tattoos. Even our Representative, Jim Kolby's home was invaded. So, I retired from a 30-year teaching career and moved our family business to Hawk Creek last year only to learn that we may be submerged by more government insanity.

Hawk Creek is located far from the place where the irrigation water is needed as wheat is not irrigated. This valley is full of families, animals and is sacred Indian land. Expect a large class action lawsuit from the property owners immediately upon the announcement of a dam as no one can sell and no one will invest in the area.

78-1

Because the Hawk Creek site is the most illogical, I'm sure the government will choose it for the dam, casting a pall on all of our property values. Remember, the government subsidized many of the agricultural wells that have depleted the aquifers.

In my 56 years on Earth, I have seen growth destroy the quality of life throughout the nation. It is ironic that this growth has come from outside the country. The US, Canada and Japan have stagnant population growth, yet the US has absorbed 90 million legal and illegal immigrants in the last 32 years

There are enough dams on Washington's rivers. We need to change the way we use water. We cannot grow forever. Conservation techniques should be the thrust, not the demands of California on the BPA. How many pumping stations using electricity would be required to move this water? Is Rube Goldberg the Chief Engineer?

Comment Letter No. 78 – Baron Allen

78-1 See the Master Response regarding Future Studies for Off Channel Reservoir Proposals.