



COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION

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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 the 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 millenia. 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.

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.

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.

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.

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 Heinith 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.

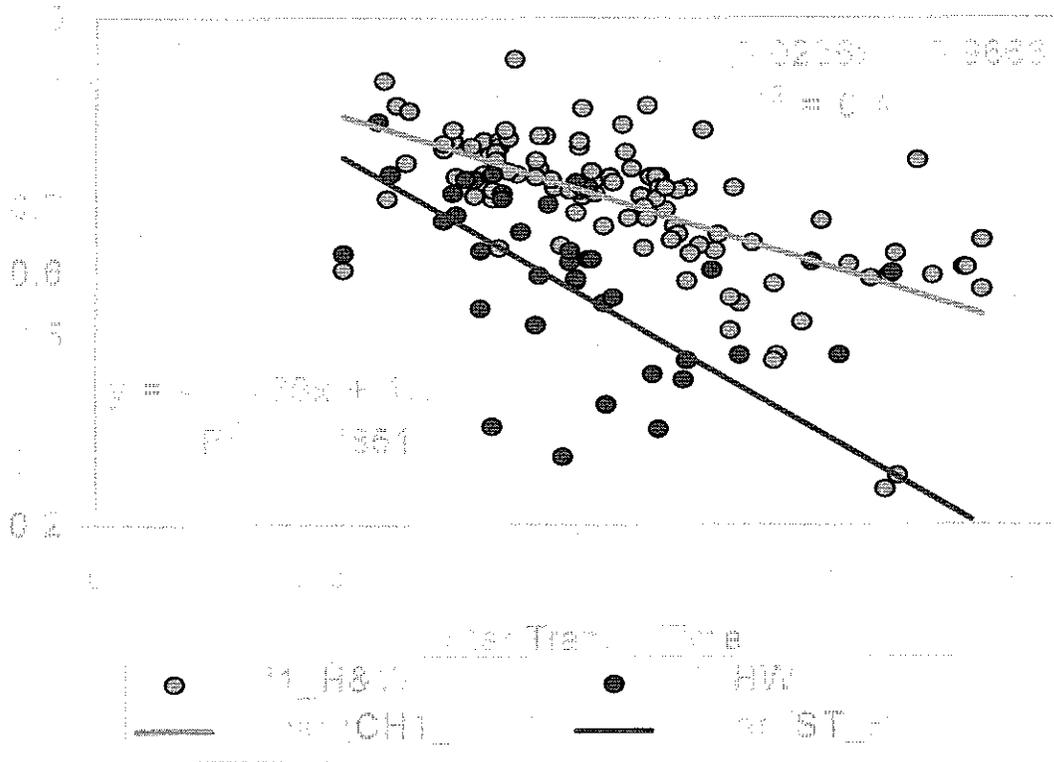


Figure 1. Yearling Chinook and Steelhead – Travel Time versus WTI IQR to McN 1998 to 2005 (Fish Passage Center).

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/da) From NMFS (1995).

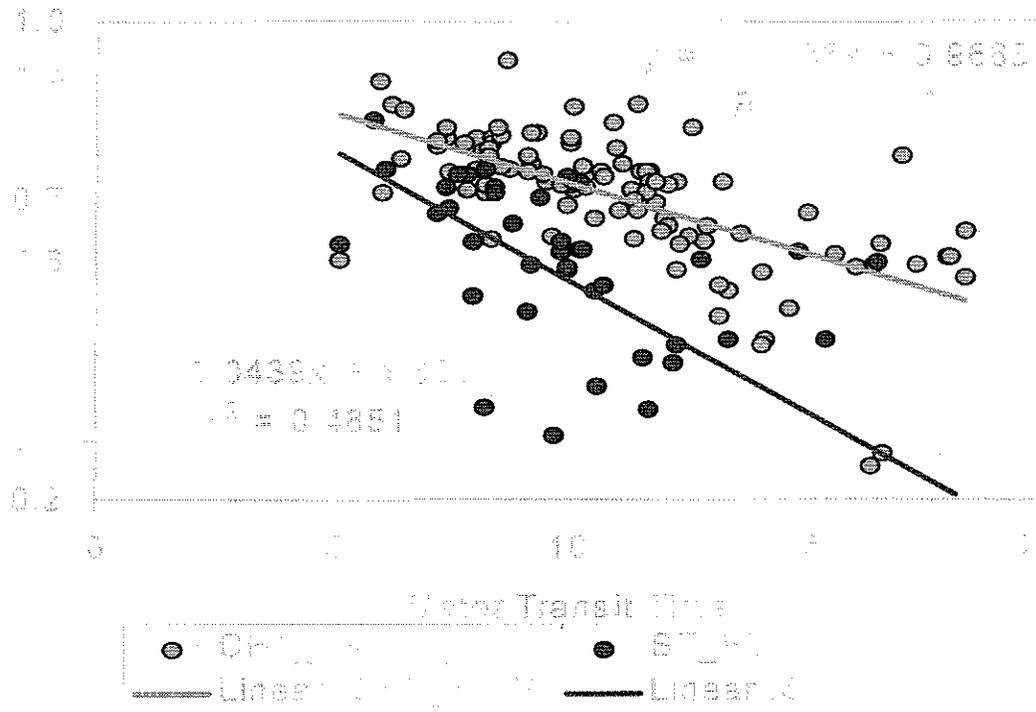


Figure 2. Yearling Chinook and Steelhead – Survival versus WTI LGR to McN 1998 to 2005 (Fish Passage Center).

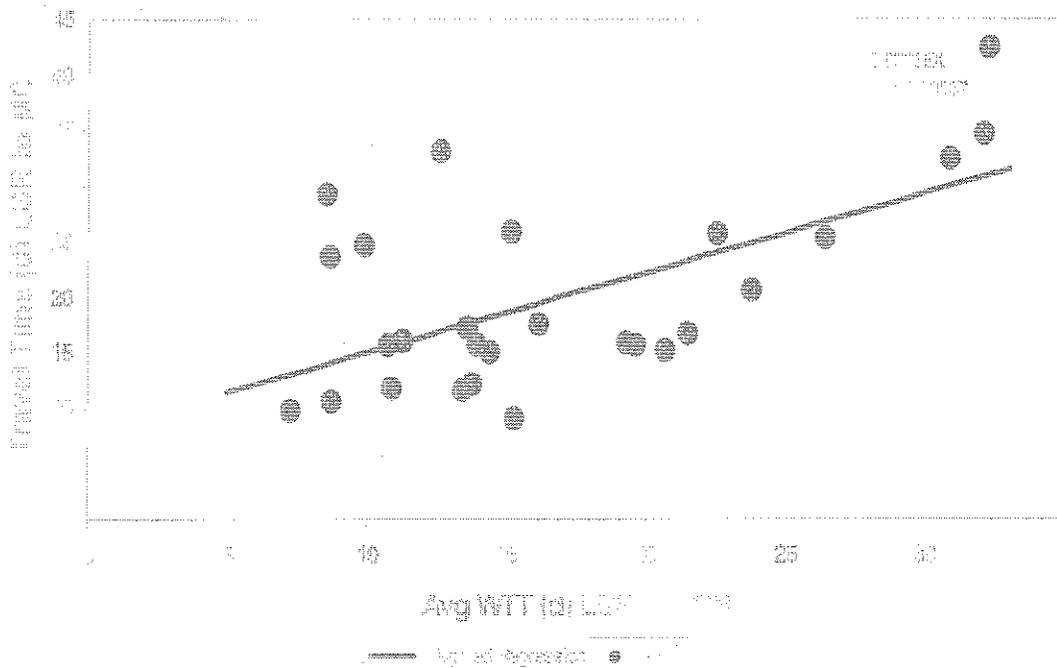


Figure 3. Subyearling Chinook – Travel Time versus WTI Lower Granite Dam to McNary Dam (Fish Passage Center).

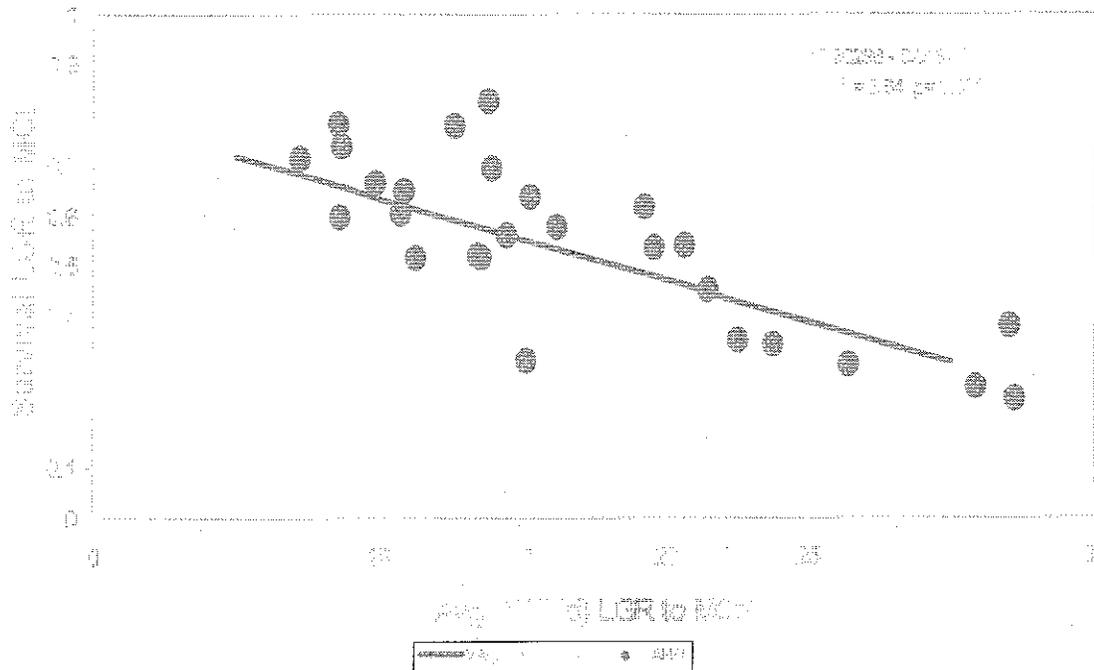


Figure 4. Subyearling Chinook – Survival versus WTI
Lower Granite to McNary Dam (Fish Passage Center).

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.

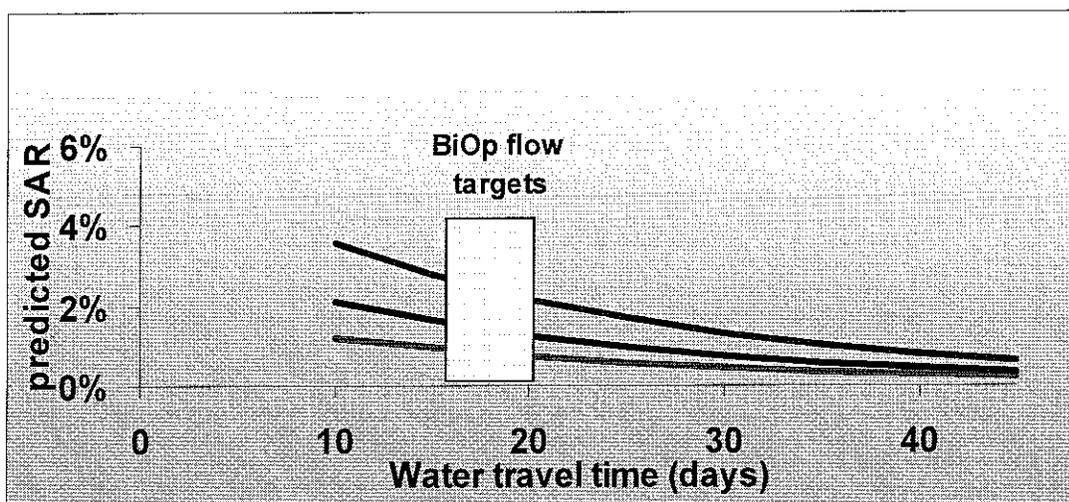


Figure 5. Influence of Water Travel Time and Ocean Effect on Spring/Summer Chinook SAR. The blue line signifies good ocean conditions, the black line average ocean conditions and the red line poor ocean conditions (predicted). (Fish Passage Center)

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.

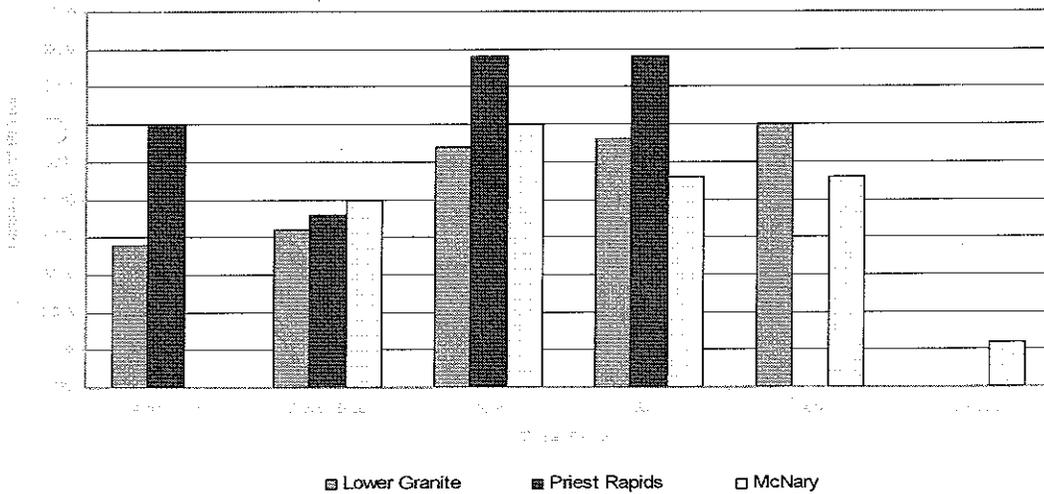


Figure 6. Likelihood of meeting BiOp target flows under current operational conditions. (Fish Passage Center)

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

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.

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).

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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).

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

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

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

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.

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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