



COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION

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**SUBJECT: Comments on Draft 2005 FCRPS Water Management Plan for the
Federal Columbia River Power System**

Dear Mr. Anderson and Mr. Ruff:

On behalf of its member tribes, the Columbia River Inter-Tribal Fish Commission (CRITFC) appreciates the opportunity to comment on the November 4, 2004 draft 2005 Water Management Plan (DWMP) for the Federal Columbia River Power System (FCRPS). The actions in the plan have a significant bearing on the restoration of listed and unlisted salmon, Pacific lamprey that are a candidate for ESA listing, listed and unlisted sturgeon and other tribal trust resources. We incorporate by reference the December 15, 2004 State, Federal and Tribal Agencies Joint Technical Staff memo commenting on the DWMP (Attachment 1).

We believe that significant information that is necessary to develop the final 2005 WMP has yet to be available or materialize. It is premature at this time to be considering many foundation WMP issues. However, we realize that water management actions, particularly flood control operations (i.e. Libby) and below Bonneville chum and Vernita Bar flow operations, begin to be implemented in November and December.

In the future we suggest that that a first draft of the plan be released on September 1 with a 30-day comment period to address early water management actions. Subsequently, when critical information on flow forecasts and research study results are available, a final draft should be released for a 30-day comment period on January 15. This information includes but is not limited to:

- The first official water supply forecast is not released until mid-January 2005. Water supply forecasts are integral to the final water management plan. The plan should contain specific, state-of-the-art methodologies to provide reasonable water supply predictions before the mid-January forecast. We offer several of these methodologies in specific DWMP comments below.
- Research results for many hydro-system and fishery studies that will highly influence draft plan measures are not currently available.
- Other issues such as new transmission capability that are still under development.

General Comments

- In 2004, neither summer nor spring target flow objectives were met for the Columbia and Snake Rivers, similar to most past years since the issuance of the FCRPS Biological Opinion in 1995. Meeting target flows is the overall priority of the WMP. Flow runoff in 2004 was a little less than normal, but if operational actions suggested by CRITFC were implemented by the Action Agencies, we believe the target flows could have been met.
- The DWMP should be based upon a “normative river system” paradigm necessary for anadromous fish recovery, expressed and described in the NWPPC’s landmark salmon recover document, *Return to the River* (Williams et al. 1996) and the CRITFC tribes salmon recovery plan, *Wy-Kan-Ush-Mi Wa-Kish-Wit* (Nez Perce et al. 1995). Chief elements of the normative river system include a spring peaking hydrograph with an extended summer reclining limb, minimum flow fluctuations and spill over dams during fish migrations. The “target flows” in the DWMP at key river index sites are flat, seasonal flow that are often missed. Further, the daily cycle of peaking flows allowed in the DWMP significantly and negatively impacts salmon life histories and critical habitat in the mainstem river (ISAB 2001-3; ISAB 1998).
- The DWMP should be supported by the state-of-the-art science with respect to the biological and ecological needs of anadromous fish. The stated objectives of the plan should include important components of the 1999 NWPPC review of the Corps of Engineers’ capital construction plan:
- ***Protect biodiversity*** -- passage solutions must be designed to benefit the range of species, stocks and life-history types in the river, which may require multiple passage solutions at a project, and
- ***Favor passage solutions that best fit natural behavior patterns and river processes*** -- the best passage solutions are those that take into account and work with the behavior and ecology of the species and life-history types using the river system, that mimic the natural situations and processes that emigrating salmonids encountered in their evolutionary history.

Flat target flows, 24 hour flow fluctuations and passing fish through screen systems and turbines and transporting fish are not supported by the relevant science of anadromous fish ecological needs expressed in *Return to the River*, or other important studies (see: Vannote et al. 1980, Heede and Rinne 1990; Power et al. 1996; Hynes 1970; Lichatowich and Mobrand 1995 and ISAB 2003).

- The DWMP fails to integrate the operation of the Canadian Projects, which are part of the Columbia River Treaty that significantly impact Columbia River flows and water quality. Yet, annual and five year plans through the Columbia River Treaty and the Pacific Northwest Coordinating Agreement are implemented that impact water quantity and quality through flood control, resident fish, recreational use, irrigation and power generation. The 1995 Action Agencies' System Operations Review EIS adopted the 1995-1998 FCRPS BiOp as the preferred alternative, which included examination of the Canadian storage projects in the environmental baseline. The final WMP should have provisions that allow consideration of obtaining additional water through flood control modifications and power swaps with Canadian entities. In taking this approach, the DWMP disregards over 17 million acre-feet of Canadian storage to provide better flows and mainstem habitat for the listed and unlisted anadromous fish stocks.
- The DWMP fails to describe the impacts of flow management on the estuary and near ocean plume. The accumulation of evidence from studies indicate that increasing flows lead to biological productivity of fish stocks by increasing estuary habitat and organic and inorganic inputs into the near ocean plume (Simenstad et al. 1982; Sherwood et al. 1990; NOAA 2004). Pulses of high flows creating a semblance of a normative hydrograph, such as that provided in high flow years, is linked to higher adult anadromous fish returns.
- Available evidence with respect to extant juvenile in-river survival rates indicates that the FCRPS operations in the DWMP, which are nearly identical to past water management plans, will not achieve rates necessary to recover listed ESUs. For example in the July 1, 2004 Findings Report on Actions Agencies' 2004/2004-2008 Implementation Plan, NOAA Fisheries stated that in-river survival for Snake River juvenile fall chinook was 10.2% on average from 1995-1999, and only averaged 8.7% from 2000-2003. Further, in that report NOAA Fisheries stated that the 2010 in-river survival performance standard has not yet been met, and is not expected to be met for six more years. The 2000 FCRPS BiOp set a performance standard of 14.3% in-river survival for 2010. It is evident that more aggressive water management actions, such as provided in these comments and CRITFC's *River Operations Plans* (CRITFC 2004) are necessary if juvenile in-river performance standards are to be met.
- The conduct and process of the Technical Management Team does not allow the free exchange of information between the fishery managers and the FCRPS operators. This is because power marketing representatives are allowed to

observe and “listen in” on discussions regarding river operations that influence power marketing and sales, which may place federal operators at an economic disadvantage. This “openness” leads the federal operators to restrict fishery manager access to important river operation information, such as forecasted daily reservoir outflows and reservoir elevations. Thus, the tribes and other fishery managers cannot access critical information to plan operations to best benefit fish populations before and during the fish migration season.¹ To address this problem, we recommend that the federal operators convene a routine pre-season and in-season forum that excludes the marketing representatives, but allows the free exchange of hydrological and other information to the tribes and other fisheries managers. We suggest that the final water management plan (WMP) include a reference to this forum.

- As we have stated in the past, CRITFC strongly recommends that the Corps’ Annual Fish Passage Plan be appended to the final WMP. The FPP has specifics on spill operations, transportation, research and fish facility operations that are intricately tied to the WMP. Both of these documents are called for by the 2000 Biological Opinion. It does not make sense that the FPP and WMP are kept in separate forums and never formally integrated.
- Although the CRITFC tribes officially withdrew from the NMFS’ Adaptive Management Forum in 1997,² the federal operators and federal fishery agencies still have a trust responsibility to formally consult with the CRITFC tribes before implementing actions, such as in the WMP, that will impact their trust and treaty resources. The current forum assigns the federal executives full authority to make critical operational decisions without the tribes at the table and without tribal consultation. For example, and as stated in the DWMP, the federal executives and the USFWS decided to eliminate spill protection at Bonneville Dam for the annual Spring Creek Hatchery release of fall chinook in March without even contacting the tribes. CRITFC can assist the federal agencies in arranging river operations consultations. The final WMP should contain a specific section indicating how the federal agencies intend to coordinate and consult with the tribes regarding all actions that will affect their treaty trust resources as required by the 1998 Secretarial Order for the Departments of Commerce and Interior,

¹ This information includes forecasted elevation at storage reservoirs and outflow information. Without this information, fishery managers cannot make well-informed decisions about flow management for fishery needs.

² In a letter dated May 16, 1997 from Ted Strong, CRITFC Executive Director to Will Stelle, NMFS Regional Director, CRITFC informed the federal government that it would, “... no longer participate in the NMFS adaptive management process, except as necessary to obtain information on system operations and configuration that cannot otherwise be obtained.” In reaching this conclusion, CRITFC stated, “It is absolutely inappropriate for the policies of the United States, with respect to fulfillment of our treaties, to be determined by technical committees of biologists and engineers.” CRITFC recommended that, “NMFS and the other federal agencies work with the Commission’s member tribes to establish meaningful government-to-government relationship between the federal agencies and the tribes.” And, “Consultations must be structured to reach agreement between NMFS and the tribes on policy issues before technical issues are referred to technical committees”.

BPA's obligations to tribes, and the Corps' Nationwide Policy for Native American Tribes.

- The final WMP should include reference to and the details of the Detailed Operating Plan and annual PNCA planning hydro-regulations and non-power fishery constraints data submittals as the overarching plan to operate the FCRPS. The Corps and Reclamation's respective data submittals create the foundation for real-time decision making for river operations. Thus, while real-time river operations may be "tweaked" by the TMT, the actual plan to operate the river has already been established the February before the water year begins by the PNCA parties.
- The DWMP lacks emphasis on water quality. Other than a section on dissolved gas and reference to Dworshak cool water releases, the plan is essentially silent on water quality actions to establish preferred temperatures and turbidity for the survival and productivity of anadromous fish. For example, water temperatures at the McNary juvenile bypass facility violate standards for an extended period of time every summer. There is no mention of point source pollution from the FCRPS (i.e., leaks from turbine and other equipment on dams) and there are no plans or contingencies outlined to address oil spills and other emergencies related to river operations.
- There are no specific operations required to reduce load following or power peaking operations in the plan. Such operations can cause desiccation of salmon redds, stranding of juvenile anadromous and resident fish and cause delay of juvenile and adult salmon. The final plan should acknowledge the impacts of power peaking on fish and offer management actions to reduce these impacts, such as limited peaking to some small percentage of the predicted base flow for the month. Such actions as experimental measures were offered by the ISAB in Report 2003-1, *Review of flow augmentation: Update and Clarification*. The ISAB further highlighted the federal agencies' lack of addressing this issue in their recent report, *ISAB Findings from the Reservoir Operations/Flow survival symposium* (ISAB 2004-2).

Specific Comments

Section 1.2: Preparation of Plans

The DWMP does not refer to the tribes' *Spirit of the Salmon* (Nez Perce et al. 1995) anadromous fish restoration plan that has specific measures for river operations for all anadromous fish. As in the 2000 FCRPS Biological Opinion, the federal agencies should include reference to the tribes' plan, consistent with the federal agencies' obligations to consult and provide trust responsibility to the tribes.

As stated above, river operations implemented in past water management plans have not provided SR Fall Chinook juvenile in-river survival rates necessary to meet BiOp standards. The operations proposed in the DWMP are nearly identical to those in recent water management plans. For UCR Spring Chinook the FCRPS BiOp states that despite the strong adult returns, both recent and 5-year and long-term productivity trends remain below replacement. The SR Steelhead ESU is also not replacing itself despite the recent abundance of adult returns. With respect to the URC Steelhead ESU: 1) the Biological Review Team is concerned about the lack of data regarding productivity for this ESU, 2) the low replacement rate for this ESU (0.25-0.30) has not appreciably increased and, 3) the mean proportion of natural spawners declined 10% from 1992-1996 to 1997-2001. Yet, the DWMP does not offer any additional protective measures over that of past water management plans (i.e. more normative conditions with more flow and spill) that could specifically reduce hydro impacts to this stock to avoid extinction.

Section 1.3: BiOp Strategies

This section lacks any reference to a basin-wide, ecosystem approach to increase productivity of listed and unlisted anadromous and resident fish (see *Return to the River*; Williams et al. 1996). Simply measuring reach survival of migrating juvenile fish from one point of the river downstream to another point as a performance standard is an important metric but it is not adequate to evaluate anadromous fish productivity. For example, delayed mortality from hydro-system passage does not occur until after the fish leave the last dam and enter saltwater (Budy et al. 2002). Further, there is no mention of increasing adult survival through the hydro-system and increasing spawning success, two metrics essential to increasing anadromous fish productivity (Lichatowich and Cramer 1979). This section should be expanded beyond mere reach survival-performance standards.

Pacific lamprey should be specifically identified in this section.

Section 1.3.1. Hydro Strategies and Substrategies

Actions to meet water quality standards are needed for this section. Among other things, actions should include investigation of selected water releases from Lake Roosevelt, keeping fish out of dam bypass and transportation systems under elevated temperature conditions that exceed standards, avoiding trapping adult fish under elevated temperature conditions that exceed standards, and monitoring of disease at dams under elevated temperature conditions. As stated previously in these comments, the foundation of the final WMP should be establishment of a natural peaking (i.e., normative) hydro operation (CRITFC 2004; Martin 2004) that provides for the environmental and passage conditions that support anadromous fish productivity to recovery goals (Williams et al. 1996).

While operations for Kootenai sturgeon are specified, there are no specified operations for other Columbia and Snake River sturgeon. Peaking flows and spills in dam tailraces have been shown by ODFW and USGS to promote sturgeon recruitment.

Section 1.4: Non-Biological Opinion Actions

Tribal fishing is a very high priority action and operations to promote tribal fishing consistent with treaties should be listed for all of Zone 6 that includes John Day and The Dalles pools—not just Bonneville. Other actions that significantly affect fish survival are lower priority and include filling the McNary pool for power boat races on the July 4th weekend and raising pools from MOP for navigation.

Section 2.1: Hydro-System Priorities

The action agencies should meet with the fishery managers in a formal meeting before establishing priorities in the plan. We recommend that:

- The spring refill operation of reservoirs to their upper rule curve by approximately April 10 should be priority one. This will ensure that spring flows can be shaped to a normative hydrograph and that target flows can be met.
- Refill of reservoirs by June 15 should be priority two. Earlier refill will ensure summer flow augmentation will be met.
- Reduction of flow fluctuations during spawning, rearing and migration should be the next priority.
- Operation of storage reservoirs to meet criteria for bull trout and sturgeon as the next priority.

Meeting these priorities should take precedence over meeting power generation needs. If flood control is operated with flexibility and a reasonable minimum spawning flow for chum is established and maintained through reduction of lower river power peaking, it is not necessary to consider reducing Hanford Reach flows established to protect thousands of fall chinook redds. The 2000 FCRPS Biological Opinion, through adoption of the 1995 FCFPS Biological Opinion, established scientific evidence why the flow targets must be met as the minimum to avoid jeopardy to listed stocks. Meeting flow targets must be given a higher priority than meeting minimum elevations in reservoirs at the end of August and not the other way around as stated by the DWMP.

Adaptive management is not, as described in the DWMP, “... The concept that the operation of the system should be adjusted based on acquired knowledge about current conditions in the system...”, but is instead involves active management actions (McAllister and Peterman 1992) that will increase the ability to discriminate between alternative states of nature (Hilborn 1987). This requires that exploratory, probing actions be employed that provide information about the true state of nature. An example of this probing could be that no fish are transported in an average flow year. The final WMP should reflect this difference in the use of the terminology. We concur with the ISAB (2003) that, “... decisions to implement actions that have any potential for

adversely affecting an ESU will be required to satisfy a burden of proof that no harm is likely to be done as a result of the action.”

We disagree with the statement that, “...[t]he use of water for any one fish species or project purpose will most likely affect the amount of water available for other fish species or project purposes.” This is not correct. For example, storage added to natural runoff will provide good migration conditions for a particular year class for all anadromous fish stocks that are present. On the other hand, filling of reservoirs for recreational purposes, such as boat races, will increase water particle travel time through those reservoirs and delay fish migrations. The final WMP should correct this broad, incorrect statement.

Because chum spawning requirements affect storage and refill for all anadromous fish the following year, a precautionary approach should be used when setting chum flows in November and December. Preseason forecasts, groundwater storage and the previous year’s runoff and meteorological conditions should be carefully considered when setting minimum chum flow spawning regimes. For example, the Climate Impacts Group has projected a 92 MaF January- July runoff at The Dalles for 2005, while CRITFC independently projects a 94 MaF runoff for the same period. Use of this information and the status of deficient groundwater supplies from the below normal runoff in 2004 supports limiting minimum chum spawning flows below Bonneville Dam to 120-125 kcfs. Power peaking from load following tends to complicate chum spawning and the maintenance of flows to protect chum redds. CRITFC strongly encourages the Corps and the other federal operators to consider reducing load following at Bonneville Dam to reduce these impacts.

The 2000 FCRPS Biological Opinion requires flow and spill measures to increase the survival of listed anadromous fish in order to avoid jeopardy and to meet tribal trust obligations, since these fish must pass many dams and reservoirs. The action agencies must consult, not coordinate, with the fishery managers including the tribes on all aspects of river operations that affect this very high priority. The final WMP should reflect these commitments and responsibilities.

Section 2.2.1: Conflicts: Flood Control Drafts vs. Project Refill

In order to meet the 2000 Biological Opinion river operations requirements and other requirements, flood control rule curves should be modified. In 2004, water was prematurely released from Lake Roosevelt for flood control. A reduction in water runoff after the release resulted in the reduction of the probability of spring flows not being met and summer flow augmentation being reduced. Early release of Lake Roosevelt storage in March for flood control can also increase the potential for stranding and entrapment of Hanford Reach fall chinook. Premature release of storage for flood control is a serious problem that is not addressed in the DWMP.

There is additional flood control space located in Canadian reservoirs that is available for purchase that could be utilized as part of this modification.³ The DWMP fails to include relaxing flood control management in Arrow, Mica, Grand Coulee, Libby, Dworshak, and Brownlee. Further, several advanced hydro-modeling tools that incorporate future climate information are available to be used to modify flood control or improve existing flood control, especially when conducting long-range water planning.⁴ These include: probabilistic streamflow and climate forecasts, multivariate ENSO (El Niño Southern Oscillation) index, ENSO Risk Model, and sea-surface temperature departure analysis. As mentioned above, the Climate Impacts Group now produces a one-year lead ensemble forecast for the Columbia at The Dalles that should be considered. Even NOAA's NWRFC is now experimenting with long-range ESP-based flow forecasts for The Dalles that could be considered. A comprehensive package of the above tools is needed to better manage all Columbia Basin reservoirs. These methods are recommended in the 2000 FCRPS Biological Opinion and should be included in the final plan.

Section 2.2.2: Spring Flows vs. Project Refill

CRITFC continues to advocate for a natural peaking flow or normative hydrograph concept. Since 2001, we have offered the federal operating agencies detailed *River Operations Plans* that meets the dual objectives of a peaking hydrograph and meeting reservoir refill levels. We have yet to receive any written comments on these plans. Again, we ask the federal operators to review our *River Operations Plans*, provide written comments and consider using them as a paradigm to meet flow objectives and reservoir elevations.

Section 2.2.3: Chum Tailwater Elevations vs. Spring Flows

We responded to this issue in our above comments.

Section 2.2.4: Sturgeon Pulse vs. Summer Flows

The DWMP fails to adequately describe how the proposed sturgeon operation comports with VAR-Q operation at Libby that is likely to occur in WY 2005. The final WMP should carefully explain this issue.

Section 2.2.5: Fish Operations vs. Other Project Uses

If non-power constraints are identified in detail and specified in the 2004 PNCA planning, there should only be minimal in-season conflicts between fish and power operations. Spill levels and flows should be clearly specified from the PNCA non-power

³ This space of 500 KaF, is noted in the 1995 FCRPS Biological Opinion.

⁴ RPA Number 35 in the 2000 FCRPS Biological Opinion specifies use of these new technologies that, "...[w]ould enhance system response and afford greater precision in system flood control operations". To our knowledge, the federal operators are not using available technologies that could make available more water available for fish flows.

constraint in the 2005 final WMP. Irrigation demands and recreational elevations can and should be modeled prior to the water management season to determine if conflicts will exist. In any case, they should have a lower priority than meeting fish flows under the Endangered Species Act. If pre-season runoff forecasting tools are utilized and an increased level of precision and detail is applied to planning to avoid conflicts before the fish passage season begins, in-season conflicts should be minimal and all parties involved with water management actions will know beforehand what to expect. The tribes have not been consulted on the conflicts between other project uses and fish operations. The federal agencies have a trust responsibility to provide consultations with the tribes before actions are implemented.

Section 2.2.6: Conflicts and Priorities

As mentioned above, CRITFC's member tribes withdrew from the NMFS' Adaptive Management Forum several years ago. The regional federal executives have a trust responsibility to meet with our member tribes' government officials before and during the fish passage season with respect to FCRPS operations.

Section 2.3: Emergencies

Short-term FCRPS emergencies that impact fish flows, spill and dam operations over a few hours or days should be avoided. If they do occur, tribal technical and policy representatives should be immediately notified and consulted and appropriate in-kind mitigation should be implemented as soon as possible. In no case should fish operations be interrupted due to financial reasons such as poor financial planning.

Section 2.4 Research

Consistent with the paradigm of active adaptive management (McAllister and Peterman 1992; Hilborn 1987), operations that are considerably different from the status quo in the DWMP should be implemented and evaluated using state-of-the-art scientific designs (McAllister and Peterman 1992; Marmoreck et al. 2004) developed cooperatively with the fishery managers.

Section 4.1.1: Reservoir Passage

The Corps operated the four Lower Snake reservoirs to MOP+1.5 in 2004, as it did in 2003, contrary to the Biological Opinion. CRITFC expects that Lower Snake reservoirs will be operated within one foot of MOP in 2005.

Section 4.2.1.1: John Day Pool Level

The Corps needs to restrict the John Day pool to one-foot fluctuations when SORs are submitted for treaty fishing. During the Autumn 2004 fishing season, many tribal fishers complained that the pool was too low (262.5 to 263 foot range) in late August and early September 2004. This fact was mentioned at TMT on October 27th, 2004.

Section 5.1: Flow Objectives

The 1995 FCRPS Biological Opinion stated that the minimum flows were set as bare thresholds to avoid jeopardizing the listed salmon ESUs. If the minimum flows are not met, then the listed species are placed in jeopardy. Thus, every effort must be made to meet the minimum flows through modification of flood control and purchase of flood control space and purchase of power produced off of the river. This effort includes meeting the minimum flows during weekends. To migrating salmon that need flows for critical life history functions, a weekend is the same as a weekday. The FCRPS must be adjusted to meet the needs of salmon, instead of salmon trying to exist in the face of federal operators running the FCRPS to achieve financial gains.

As noted elsewhere in these comments, in CRITFC's *River Operations Plan*, we have developed a natural peaking hydrograph that meets seasonal target flow objectives and reservoir refill objectives more often than Federal operations. A natural peaking flow regime also provides the physical habitat parameters—sediment transport, nutrient cycling, enhancement of mainstem and estuarine riparian corridors and water quality elements—that are critical to salmon life histories (Williams et al. 1996). Using this paradigm, combined with trended-and corrected Water Supply Forecasts (Martin 2002) during the fish passage season, the Federal Operators can deliver more water in a timely manner to better coincide with the salmon's life cycle and better protect listed and unlisted salmon and other anadromous fish. We recommend that these paradigms be tested for the FCRPS in WY 2005.

Section 5.2 All Storage Projects

Available research indicates a direct flow-survival relationship for juvenile steelhead, which are spring migrants (NMFS 1998). For example, Mullan et al. (1992 in NMFS 1998) ran a regression of smolt-to-adult returns of Wells hatchery steelhead against spring flows which indicated that flows over 140 kcfs resulted in smolt-to-adult returns that were three times higher than for lower flows. Berggren and Filardo (1993) also showed a strong relationship with steelhead migrations and increased flows. Under low flows in 2001, only 4% of Snake River steelhead were estimated to survive, the survival rate in 2002, a near normal runoff year, was about 26%. All efforts, described above, must be made to achieve spring flows and reservoir refill. All of these elements should be included in the final WMP.

For Grand Coulee, we understand the need to lower the pool to msl 1255 feet for maintenance work. This elevation is 11.4 feet less than CRITFC's URC for April 30th. CRITFC is concerned about the possibility of missing refill and lower seasonal flows in the Hanford Reach. We request that the maintenance work be done as early in the season as possible so as to minimize the impact on refill and Hanford Reach spring flows.

The Hells Canyon Complex operation coordinated with federal operations is not detailed in this section. In the final WMP, the Hells Canyon Complex operations for fish

should be specified. Included in these specifications should be 1) arrangements between the Corps and Idaho Power should be made so that a flood control shift of up to 110 Kaf can be realized from Brownlee to augment spring flows in the lower Snake River if desired by the fishery managers. The Bureau of Reclamation should assure that that 427 Kaf of upper Snake flow augmentation will be delivered in a timely manner for 2005 fish migrations. Water from the upper Snake reservoirs and the Hells Canyon Complex should augment natural flows. Water from Brownlee should be released in July to save limited Dworshak cool water for later temperature control.

Section 5.8.3: Dworshak Summer Operations

Dworshak should be prioritized for temperature control, not flow augmentation. Summer drafts should be limited to 1535 feet by August 31st unless additional water is needed for temperature control. Dworshak should be targeted for refill to msl 1600 feet by June 1 or earlier and be targeted for msl 1520 feet by mid-to-late September. Lower Snake pools should not refill while Dworshak flow augmentation continues during September. A monitoring program should be put in place to evaluate effectiveness of Dworshak operations. The Corps should provide the Nez Perce Tribe with financial resources to protect cultural sites and resources during reservoir drawdowns. All of these elements should be included in the final WMP.

Section 6.0 Hydrosystem Substrategy 2.3: Spill operations for project passage

The final WMP should describe the 120% total gas pressure as conservative, because, among other things, salmon can and do achieve depth compensation in the river from elevated levels of dissolved gas. This comports with the relevant regional research (Backman et al. 2002, Backman and Evans 2002), a risk assessment by the regions' fishery managers (Columbia Basin Agencies and Tribes 1995) and the water quality appendix to the 2000 FCRPS Biological Opinion. All of these indicate that total dissolved gas levels cause little harm up to 125% TGP. Thus, spill management should not be overly concerned about some excursions above 120% TGP.

Recent data obtained from turbine survival and transportation studies at McNary Dam indicate that turbine and bypass system mortality of summer migrants is very high (15-26 %; Perry et al. 2004) and that transportation from McNary and the Snake River dams, with respect to smolt-to-adult returns is at best the same as in-river passage and may be worse (NOAA 2004; CRITFC 2004). Implementing a spread-the-risk spill passage operation⁵ for McNary and the lower Snake dams for summer migrants should be included in the final WMP. Further, it is critical to evaluate the removable spillway weir at Lower Granite for summer migrant passage to determine if this technology is a viable complement to conventional spill.

Further, substantial numbers of juvenile salmon migrate in September (FPC 2003 unpublished data; Connor et al *in press*) and recent evidence indicates that "reservoir

⁵ This action would entail summer spill at McNary and the lower Snake dams as necessary to pass 50% of summer migrants over the spillways or a combination of removable spillway weirs and spillways. .

type” SR Fall chinook migrate throughout the late fall, winter and early spring (Connor et al. *in press*). Given these facts, serious consideration should be given to extending salmon flows and spill through September.

Recent data for spill at Bonneville Dam indicates that adult fallback is not substantially affected by daytime spill. The final WMP should examine a 24-hour spill program at Bonneville without a daytime spill cap.

Bonneville spill for Spring Creek National Hatchery fall chinook is not mentioned in this section. The final WMP should include a 3-7 day spill program in March to protect this stock of international importance.

Section 7.1.3: Libby Storage Reservation Diagram

The December 31st preemptive draft at Libby to msl 2411 feet should not be implemented in this year to leave additional water in storage for WY 2005. Right now, the Corps is starting their pre-season draft. We ask that the Corps to draft to no lower than msl 2424 feet by December 31st.

Section 7.7: Dworshak Draft to 1500 feet

CRITFC does not support any draft below msl 1520 feet. Drafts below this level may reduce refill probabilities the following year and cultural resources are particularly exposed at drawn down elevations and are vulnerable to vandalism and theft.

Section 7.8: Other Reclamation Water Management Actions

The final WMP should incorporate, in detail, what specific actions will be taken in 2005 to reduce illegal water spreading. The Columbia Basin Institute, in its 1994 report on the Columbia Basin Irrigation Project, identified 800 to 1000 KaF, out of the 2800 KaF, being diverted by the Bureau of Reclamation that is illegally spread by some irrigation districts. The upper Snake contribution from Reclamation reservoirs should be specified in the final WMP as a minimum of 427 KaF.

Section 12.4.1: Kokanee—Grand Coulee

The upper Columbia Tribes have indicated to us that Lake Roosevelt needs to be at msl 1283 feet by the end of September to allow kokanee spawning access to tributaries. Filling to elevation 1285 feet by October 1 is not necessary for kokanee spawning and such refill could reduce lower Columbia flows in September that would negatively impact CRITFC’ member tribes treaty fisheries in September and October.

12.5 Hanford Reach Protection Flows

Flow fluctuations from Grand Coulee and Chief Joseph dams can overwhelm efforts of the mid-Columbia public utility districts to re-regulate and stabilize flows into

the Hanford Reach. Stable flows in the Hanford Reach are vital to protect millions of emerging and migrating fall chinook from stranding and entrapment and to protect redds and spawning activity specified under the Vernita Bar Agreement. The federal operators should work with the PUDs to limit flow fluctuations during the juvenile susceptibility period from late March until early June and in October and November for adult spawners. Specifically, the federal agencies should remain on Mid-Columbia Hourly Coordination during these times of fish life history susceptibility to flow fluctuations. These issues should be specifically detailed in the final WMP.

Section 12.9.1: Tribal Fishing

As previously mentioned in these comments, CRITFC's member tribes' treaty fisheries occur in all of Zone 6 (Bonneville to McNary dams). Pool elevation restrictions and steady flows should be provided during tribal fisheries for all of Zone 6, not just Bonneville Pool. The federal operators have a trust and treaty responsibility to provide this operation. The final WMP should specify these requirements.

Section 12.9.2 Spring Creek Hatchery Releases

The 2004 evaluation of the corner collector at Bonneville Powerhouse II during the Spring Creek release indicated that the Bonneville Project fish passage efficiency was reduced from 60% to 51% from a 50 kcfs spill operation to a no spill and corner collector operation (Ploskey et al. 2004). As survival rates through the turbines are considerably less than through the bypass system and corner collector, there is a distinct survival disadvantage for the Spring Creek migration when no spill is implemented.

Further, it has been determined through WES hydraulic studies that a minimum of 50 kcfs spill should be provided for good tailrace egress conditions to occur below the corner collector. Implementation of active adaptive management requires modifying project operations based upon monitoring and evaluation when the goal is to increase passage protection for juvenile salmon. The 2005 final WMP should require 24-hour spill at the dissolved gas cap level during the majority of the Spring Creek out migration through the dam, which historically occurs over 3-5 days.

While, as stated in the DWMP, the Corps and other federal agencies entered into a 2004 agreement on Bonneville operations during the 2005-2006 Spring Creek release that does not require any spill, the best available scientific information now at hand indicates that not providing spill at the project to pass 7-8 million Spring Creek fish will significantly reduce their direct survival and probably, based upon route specific studies at Bonneville and other dams, reduce adult returns (Gilbreath 1993; Dawley 1996; Marmorek et al. 2004; Budy et al. 2002). Further, the Corps never consulted with the tribes regarding this agreement and impacts to their trust resources from Spring Creek Hatchery. Apparently, the Corps has failed to consider the implication of reducing survival of these fish on international fisheries under the U.S.-Canada Pacific Salmon Treaty. Fish released from this hatchery are in themselves mitigation for the construction of Bonneville and other lower Columbia River dams. Thus, the Corps is eliminating mitigation fish without

mitigating for these fish that were established as mitigation for the original harm to natural stocks of lower Columbia fall chinook. This is not acceptable.

Conclusion

CRITFC appreciates the opportunity to review and comment on the 2005 DWMP. We request a staff to staff meeting with your agencies and other federal agencies as appropriate to discuss these comments and recommendations for consideration in the final WMP. Should you have questions about these comments, please contact Bob Heinith at (503) 238-0667.

Sincerely,

/s/

Olney Patt, Jr.
Executive Director

Attachment 1

CC: Commissioners, tribal staffs, tribal attorneys, CBFWA Fish Managers, Regional Executives, C. Henriksen, Corps RCC

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