



**Independent Scientific Review Panel**  
for the Northwest Power & Conservation Council  
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## MEMORANDUM

January 20, 2004

**TO:** Doug Marker, Fish and Wildlife Division Director, Northwest Power and Conservation Council

**FROM:** ISRP

**SUBJECT:** ISRP Review of Criteria for Evaluating Proposals to Secure Tributary Water for 2004 (ISRP 2004-2; see also ISRP 2002-15 & 2003-1)

This review is a follow-up to a previous ISRP review. In January 2003, as specified in the 2000 Fish and Wildlife Program and requested by the Northwest Power and Conservation Council, the ISRP completed a review of the criteria for evaluating proposals to secure tributary water for the Columbia Basin Water Transactions Program. The National Fish and Wildlife Foundation (NFWF), Pacific Northwest Regional Office, administers this five-year, Bonneville Power Administration-funded program that is charged with increasing tributary flows in the Columbia River Basin through innovative water transaction projects. The Foundation receives, evaluates, and ranks innovative water proposals submitted by qualified local entities using the criteria being reviewed here; obtains BPA approval on selected projects; and facilitates the implementation of those BPA approved projects.

For the January 2003 review, the ISRP participated in an iterative feedback and revision process that resulted in a final set of criteria and questions that requested the necessary information to scientifically review and prioritize water transaction proposals. Importantly, the final criteria included questions that would help identify and prioritize proposed transactions that offered the highest potential benefit to fish, wildlife, and the ecosystem and would ensure adequate monitoring and evaluation is in place.

After a year of use, the NFWF and BPA determined that the criteria needed to be revised to help make the documents flow better, help organize responses, and streamline the review process of individual transactions. Even though the changes were primarily in the format and sequencing of items in the documents, the NFWF and BPA requested that the ISRP review the revised criteria.

The ISRP's role in reviewing the criteria is important because the National Fish and Wildlife Foundation, not the ISRP, evaluates proposals. Given this absence of ISRP proposal review, the Water Transactions Program criteria need to be inclusive of and consistent with the criteria from the 1996 Amendment to the Power Act, which directs

the ISRP to review projects in the context of the Council's program and in regard to whether they:

1. are based on sound science principles;
2. benefit fish and wildlife;
3. have clearly defined objectives and outcomes; and
4. have provisions for monitoring and evaluation of results.

The ISRP believes that the revised 2004 Water Transactions Program criteria and checklist continue to satisfactorily incorporate all the elements from the 1996 Amendment, solicit the necessary information to scientifically review and prioritize water transaction proposals, and capture the reoccurring technical questions that are likely to arise in the proposal review process. In sum, the criteria ensure the accountability needed given the absence of ISRP review of individual transactions.

The ISRP would like to be briefed on the Council, BPA, NOAA, and the National Fish and Wildlife Foundation's impressions of the program, the use of the criteria after its first year of implementation, and how effective the program appears to be in restoring continuous flow to streams that will be robust to dry years. Such a briefing would help the ISRP better understand the ability of potential participants to propose projects; i.e., whether the process and criteria are so onerous as to discourage participation. The ISRP recognizes that many of the criteria it suggested require some detailed hydrologic and biologic knowledge. Although the Qualified Local Entities or NFWF may provide the needed technical support, the ISRP suggests that the criteria list may be more helpful to the applicant if it provided sources for some of the information sought (e.g., where does one get the GPS coordinates or the HUC number?). This might be done in an instruction sheet or some such appendix, or footnotes. Making the form easy to use ought to be a priority.

As an expansion to the hydrologic and biologic criteria, one technical point that might be especially useful for a decision maker could be generated by questions such as: Would the acquired flow make the difference between intermittent flow and continuous flow in the stream reach in most years, in dry years? Would this occur at a time when fish need access to the reach?

Specific ISRP comments on the criteria are provided below in [\[square brackets and blue font\]](#).

## **Draft Water Transaction Checklist for Specific Water Transactions to Increase Tributary Flows**

**Instructions:** The local entity should complete the following checklist as completely as possible when proposing a specific water transaction to the Columbia Basin Water Transactions Program (Columbia Basin WTP). Upon transaction completion, the checklist should be updated to reflect any changes to the transaction and a final version should be submitted to the Columbia Basin WTP.

Name of Transaction:

Local Entity Proposing Transaction:

Entity Contact Person on Transaction:

Date Transaction Proposal Submitted to the Columbia Basin WTP:

Total Amount of Landowner Payment:

Amount of Landowner Payment Requested from the Columbia Basin WTP:

Principal Objective of the Transaction (e.g., “Adding 6 cubic feet per second (cfs) of base flow to Young’s Creek by purchase and transfer of King’s Ranch’s water right number 6.):

### **ACCOUNTABILITY CRITERIA**

1. Have the following documents been submitted to the Columbia Basin WTP as part of the proposal? If not, when will the document(s) be submitted?

a. Contract with landowner detailing terms of the water right transaction:

Yes  No  Date Submitted:

Comments:

b. Water right certificate(s) included in the transaction.

Yes  No  Date Submitted:

Comments:

c. Application(s) submitted to the state water agency for transfer of the water right to instream flow (if applicable).

Yes  No  Date Submitted:

Comments:

d. Approval order from the state water agency required to affect the transfer and change of use (or explanation as to how the water right will be protected instream without agency approval).

Yes  No  Date Submitted:

Comments:

- e. A copy of a completed and signed National Environmental Policy Act (NEPA) checklist submitted to Bonneville Power Administration.

Yes  No  Date Submitted:  
Comments:

- f. Any other important documents to describe and record the transaction.

Yes  No  Date Submitted:  
Comments:

- 2. What other information may assist the Columbia Basin WTP in evaluating this transaction or similar transactions in the future?

### **ADMINISTRATIVE CRITERIA**

- 3. How did the water right holder use the water before the transaction? Is there evidence that water right(s) to be acquired was put to beneficial use during the relevant time period set forth by your state's abandonment statute?
- 4. When was the application for the transfer of the water right to instream flow submitted to the applicable state agency (or other authority)? If the application has not yet been filed, what is the projected application submission date? When is the state agency expected to approve the transfer and finalize the amount of water that will be allocated to instream flow?
- 5. Who will hold the water right once the water is secured for instream flow?

### **HYDROLOGIC CRITERIA**

- 6. What is the name of the stream(s) that will have increased instream flows as a result of the transaction? In what subbasin and watershed HUC is the stream(s) located? Please provide the NPCC Subbasin name and Watershed 5<sup>th</sup> Field HUC (10 digit) number.
- 7. What is the reach(es) of river that will benefit? (Please provide the approximate river mile of the upper and lower ends of the instream reach(es) and the Global Positioning System (GPS) coordinates of the existing point(s) of diversion.)
- 8. For what term will the transaction secure water for instream flow (e.g., two years, ten years, in perpetuity)?
- 9. What is the proposed period of use of the instream right(s) (e.g., July 1<sup>st</sup>-September 30<sup>th</sup>)? What is the period during which the benefits of the proposed use is most ecologically significant (e.g. August 1 to September 5)?

10. What is the priority date of the water right(s) secured for instream flow? What is the authorized period of use for the water right(s)? Is the water right(s) typically satisfied during this period of use each irrigation season? If not, what is the actual period of use before the water right(s) is restricted?
11. What is the rate in cfs that will be protectable instream? Will the established rate vary throughout the reach(es)? Will the established rate vary during the period of use? If so, describe the amount(s) by which the established rate will vary and the location and/or time of the variance.
12. What is the total quantity of water in acre-feet to be put instream during the term of the transaction? Will the established duty vary throughout the reach(es)? If so, describe the amount(s) by which the established duty will vary and the location of the variance. If the transaction is for more than one year, please give an annual quantity in acre-feet (show calculation).
13. What percentage increase of the historical base flow will the acquired water provide in the primary reach during the instream period of use? What percentage of the minimum biological flow target will the acquired water provide in the primary reach during the instream period of use? (A range is acceptable.)

## **BIOLOGICAL CRITERIA**

14. What are the species name and ESA status (endangered, threatened) of the anadromous fish, specifically Evolutionary Significant Units (ESUs), expected to benefit by the increased flow? What life stages of the fish present will benefit from the increased flows?
15. What other fish (i.e., Distinct Population Segment) and wildlife species are expected to benefit? How?
16. How is water quality expected to improve as a result of the transaction?
17. What is the current condition of the riparian zone and stream channel in the affected reach(es)? Are there other projects planned or in effect to address degraded riparian areas or stream habitat? Include photographs of [\[systematically located sites in the\]the affected reach\(es\)](#), with a listing of the approximate river mile[s] of the site[s]. [\[In particular, include photographs of degraded riparian areas or stream habitat. Are there other projects planned or in effect to address degraded riparian areas or stream habitat?\]](#)
18. Do the riparian zone and stream channel have the immediate potential to create additional high quality fish and wildlife habitat with the increase in stream flow? If high quality habitat is not immediately available, what are the other limiting factors (e.g. passage, stream temperature, [\[lack of cover for fish,\]](#) etc.)?

19. Is the stream reach fenced to create a riparian buffer [to exclude livestock grazing]? If so, what are the set-back distances from the stream? [What are the provisions to maintain the fences and for what period of time?]

## **INNOVATION CRITERIA**

20. Name what tool(s) and/or strategies were used in developing this transaction?
21. Explain what new information has been learned by use of these tool(s) and/or strategies?
22. What is:
- a. the total amount paid to the water right holder;
  - b. the estimated transaction costs related to this transaction; and
  - c. the total cost of the transaction (water cost and transaction costs).

*If the water right is donated (partially or totally) and/or the water right holder payment is from more than one source, please approximate the value donated and/or the source and the amount of cost-share funds.*

23. What method was used for determining the value of the water right?
24. What incentive(s) motivated the water right holder to enter into the transaction?

## **MONITORING CRITERIA**

25. How will the increases in flow be documented and monitored?
26. How will benefits to fish and/or wildlife be documented and monitored?
27. How will increases in water quality be documented and monitored?

*[Describe where the monitoring data and metadata (descriptive information about the origin, context, quality and condition, method used to collect, or characteristics of the data) will be stored, electronically if possible, and decision makers and the public can access the data. Will the data and metadata be made available to one of the Council's Fish and Wildlife Program public databases such as STREAMNET? How often will reports be issued giving an analysis of the data? Who is responsible for analyzing the data and issuing reports?] Please provide key contact information if another agency, program, or individual will be collecting[, storing,] and evaluating the flow, biological and water quality data.*

28. Is the anticipated increase in streamflow sufficiently great to alter the physical shape of stream beds and floodplains? If so, have factors such as bank erosion, flooding,

and other effects of streamflow change been taken into account for both their positive and negative impacts for fish and wildlife and related water uses?

**WATERSHED CONTEXT** *(To be provided by a QLE once annually for each subbasin in which they are completing transactions.)*

29. What does the Northwest Power and Conservation Council's relevant Subbasin Plan state regarding instream flows and water transactions in the watershed?
30. Are there other existing watershed assessments or comprehensive planning efforts under which your water transactions are being implemented? If so, please describe the assessment(s) and/or effort(s).
31. Have regulatory instream or minimum flows been set in the watershed or are there other limitations on new appropriations (i.e., has the basin been closed to new appropriations)?
32. What kind of water resource planning efforts is ongoing in the basin, if any? What is the status of those efforts? Are those efforts attempting to address instream flows?
33. Are the benefits anticipated from water transactions part of or tied to other habitat improvement projects in the watershed? If so, please describe the relationship and briefly describe the other projects necessary to achieve the habitat goals.

## Columbia Basin Water Transactions Program

### Draft Interim Criteria for Evaluating Proposals to Secure Tributary Water

**Goal:** To increase tributary flows for the primary benefit of ESA listed fish and other depressed fish stocks in accordance with Action 151 from the 2000 NMFS Biological Opinion and Implementation Provision A.8 of the Council's Fish and Wildlife Program.

The National Fish and Wildlife Foundation (NFWF), the regional entity for the Columbia Basin Water Transactions Program (CBWTP), will evaluate, prioritize, and recommend water transaction proposals for funding by BPA based on the extent to which the proposals submitted by the Qualified Local Entities (QLEs) satisfy the following criteria. To qualify for funding, a proposal need not meet all the criteria below, with the exception of the administrative and accountability criteria.

1. The proposal satisfies the following accountability criteria:
  - The QLE has provided the necessary documentation including transaction checklist, NEPA checklist, landowner contract and state agency authorization (if applicable).
  - The QLE agrees to update the water transaction checklist and forward a final version to NFWF upon implementation of the proposal.
2. The proposal satisfies the following administrative components:
  - The water rights to be secured are valid and verifiable.
  - Landowner/irrigation district agreements are signed or the steps to completion are manageable and timely.
  - Agency approval has been received or a plan is in effect to ensure transfer of the water is in accordance with the applicable state agency rules (if applicable).
3. The proposal satisfies the following hydrologic components:
  - The proposal will secure water for in-stream tributary flows at a location where low flows are a limiting factor to fish survival and/or productivity and for the maximum reach of river legally and physically possible. [Location]
  - The water right is of significant seniority to be protected in-stream at a time of year when needed to benefit fish and wildlife or is protectable instream from diversion regardless of priority date (e.g., diversion elimination agreement). [Timing]
  - The quantity to be transferred has been properly estimated and will incrementally restore flow in the targeted reach. [Amount]
4. The proposal satisfies as many of the following biological components as possible:



- ESA listed species in jeopardized ESUs are expected to benefit from the proposal when implemented.
  - ESA listed species or other depressed native [\[fish,\]](#) ~~or~~ wild fish, [or wildlife\]](#) populations are expected to benefit from the proposal when implemented.
  - Water quality is expected to improve due to increased quantity.
5. The proposal fully explores the innovative components:
- The proposal will develop a new transactional strategy or uses an existing innovative method that increases tributary flows.
  - The proposal for securing water demonstrates that it is cost-effective in terms of local and regional markets.
  - The proposal is based upon or will develop standardized appraisal and valuation methods.
6. The proposal satisfies the monitoring components:<sup>1</sup>
- The proposal makes provisions for basic and effective long-term monitoring of water flow, and benefit to fish and wildlife and water quality. [\[The proposal makes provisions for electronic storage and retrieval of monitoring data and metadata \(data collection methods\) in one of the region’s public database systems such as STREAMNET. Reports analyzing the monitoring data are to be issued on a regular basis.\]](#) Monitoring and experimental design parameters to be measured, sampling approach, and timing and data analysis [\[are\]](#) ~~should be~~ included even if the monitoring design, data collection, and evaluation are to be conducted by another agency, program, or individual.
  - The proposal provides documentation and assurance of tributary flow improvements in the short term and the long term.
7. The proposal provides a watershed context:<sup>2</sup>
- The proposal demonstrates collaborative efforts with other entities.
  - The proposal documents how opportunities for cost-sharing and collaboration with other entities were considered and developed.
  - The proposal considers synergistic effects with other mitigation actions in the area.

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<sup>1</sup> The proposal should describe the monitoring protocols that will be employed to help determine if the proposed flow increase will have the desired benefit.

<sup>2</sup> The proposal should summarize the issues related to watershed health, streamflows, fish and wildlife status and factors presently limiting their abundance and productivity, and generally give background description and justification for the critical nature or importance of completing the proposed project. This context should explicitly include demonstration of consistency of the project with the Northwest Power and Conservation Council’s Fish and Wildlife Program and the appropriate subbasin plan, as applicable.

- The proposal is based upon an existing watershed assessment or subbasin plan in a specific, targeted watershed or it describes how a strategic analysis of water acquisition priorities will be developed for that watershed.
- The affected aquatic habitat and adjacent riparian habitat are protected from harmful livestock grazing and other potentially damaging agricultural uses.
- Natural geomorphic and ecological processes are expected to be enhanced.

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