



Independent Scientific Review Panel
for the Northwest Power Planning Council
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MEMORANDUM

December 5, 2002

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

FROM: ISRP

SUBJECT: ISRP Review of Criteria for Evaluating Proposals to Secure Tributary Water (ISRP 2002-15)

As specified in the 2000 Fish and Wildlife Program, Council staff requested that the ISRP review the criteria for evaluating proposals to secure tributary water. In general, the ISRP found the criteria and the checklist comprehensive. However, the ISRP found the criteria and checklist need to be further refined to raise the priority of those proposed transactions that offer the highest potential benefit to fish, wildlife, and the ecosystem. The criteria and checklist with ISRP edits and comments in square brackets and [blue text] are provided below.

Background. Over the past year and a half, Council, NMFS, and BPA staff in addition to other regional representatives from non-profit and governmental entities have participated in the development of a water transactions program to meet the requirements of Reasonable and Prudent Action 151 of the 2000 Biological Opinion on the Operation of the Federal Columbia River Power System (BiOp) and the Council's 2000 Fish and Wildlife Program (FWP) section titled, Funding Agreement for Land and Water Acquisitions.

RPA 151 states that:

BPA shall, in coordination with NMFS, experiment with innovative ways to increase tributary flows by, for example, establishing a water brokerage. BPA will begin these experiments as soon as possible and submit a report evaluating their efficacy at the end of 5 years. Tributary flow problems are widespread. It is unclear whether and how solutions can be implemented through existing laws and administrative processes. To test new approaches to this problem, Bonneville will conduct experiments such as organizing a non-profit water brokerage to demonstrate transactional strategies for securing tributary flow—and, where feasible, addressing water quality—in streams with significant non-Federal diversions. The project would develop a competitive process to supply water to increase flows and water quality at the lowest cost.

The RPA further states that BPA will establish or contract with a non-profit (or non-profits) to implement the project and estimates BPA expenditures of \$2.5 million in the first year, \$5 million in the second year, and \$5 to \$10 million per year thereafter, as justified by prospective transactions. The RPA also calls for BPA and NMFS to explore integration of RPA 151 with the 2000 FWP provision to create a water acquisition program.

The Council's program calls for the establishment of a mechanism, including an advisory entity, that can act flexibly, quickly, and responsibly in approving funding for land and water acquisition proposals. The program explains that such a mechanism is needed because often the opportunity for an important acquisition may exist only for a short period of time, and often there is a substantial price advantage in being able to quickly close the transaction. The time and uncertainty of the current project selection process, and the procedural constraints on real estate acquisition by the federal agencies have made these transactions relatively difficult and more costly than necessary. The program calls for the establishment of a Board to oversee the selection of acquisitions; ISRP reviewed scientific criteria to prioritize and evaluate proposals; provisions for monitoring and evaluation; and standardized contractual, crediting, and operational protocols.

Implementation to Date. BPA, NMFS, Council, et al. have established the infrastructure to implement the water transactions program.

Regional Entity. Through a competitive solicitation, Bonneville Power Administration (BPA) selected the National Fish and Wildlife Foundation (NFWF), Pacific Northwest Regional Office, to administer the 5-year program that will increase tributary flows in the Columbia River Basin through innovative water transaction projects. NFWF is a non-profit foundation established in 1984, and is authorized to accept federal funds and leverage them with non-federal partners to invest in national conservation priorities. The foundation has funded over 5000 projects worth more than \$500 million in federal and nonfederal investments. The PNW Office currently manages over 250 projects in the Northwest worth over \$35 million.

As the regional entity, NFWF will receive, evaluate, and rank innovative water proposals submitted by qualified local entities, and facilitate the implementation of projects selected by BPA. Using a set of approved criteria, NFWF will make preliminary funding determinations on water project proposals submitted by local entities and will obtain BPA approval before funding a project under this program. After granting a proposal, NFWF will manage the subcontracts to the local entities funded by the Columbia Basin Water Transactions Program to ensure compliance with NEPA. NFWF will develop outreach capabilities, issue solicitations, and qualify additional local entities. NFWF will provide BPA with annual reports explaining the success of funded projects to develop innovative ways to increase tributary flows in the Columbia Basin.

Local Entities. To begin the program, BPA selected 10 qualified local entities (QLE) in the states of Oregon, Washington, Idaho and Montana. Additional qualified local entities will be selected in early 2003. BPA sought local entities that would be well positioned to develop innovative ways to increase tributary flows. These local entities are eligible to submit proposals to the regional entity for funding consideration.

2002 qualified local entities:

1. Oregon Water Trust (OWT)
2. Deschutes Resources Conservancy (DRC)
3. Oregon Water Resources Department (OWRD)
4. Washington Water Trust (WWT)
5. Idaho Department of Water Resources (IDWR)
6. Montana Water Trust (MWT)
7. Trout Unlimited (TU)
8. Bonneville Environmental Foundation (BEF)
9. Walla Walla Watershed Alliance (WWWA)
10. Washington Department of Ecology (WDOE)

General ISRP Comments. Over the course of reviews for the past five years, the ISRP has emphasized that the best long-term strategies for protecting fish and wildlife habitat and restoring viable populations are to purchase lands, conservation easements, and water rights for instream flow. The greatest scientific confidence for protecting the needs of populations resides in protecting as many areas maintained by natural processes as possible, at least until specific needs are better understood (e.g., ISG, Return to the River 2000; www.nwcouncil.org/library/return/2000-12.htm). This water transactions program is responsive to and consistent with this long-term strategy and should provide benefits to fish and wildlife.

The point of the RPA is to foster and support innovative approaches to water transactions. The ISRP notes that “innovative” is highly subjective and varies from state to state, property owner to property owner. For example, Oregon and Washington laws provide that property owners can designate their water rights for instream use while Idaho does not have such legal mechanisms. It could be argued that for most of the region, transfer of private water rights for instream use is in itself innovative despite over a decade of practice in some states. In the Upper Snake Provincial Review, the ISRP saw a proposal for a water bank or water trust, that in our preliminary review, we found intriguing and innovative (though inadequate technically). The proposal was subsequently withdrawn, apparently in part due to political pressure. What assurances (if any) are built into this process to avoid unfair lobbying or political pressures against project sponsors? Solutions that are innovative often appear radical at first exposure.

Importantly, the ISRP recognizes BPA’s current financial condition and recent decrease in commitment to the innovative proposal program after the solicitation and review had occurred. Consequently, the ISRP emphasizes that BPA’s funding commitment to this Water Transactions program be established before proposals are requested.

ISRP Review of Criteria. As described above, the National Fish and Wildlife Foundation will rank and evaluate proposals using specific criteria. The current draft interim criteria provided below and subject to this review were developed by the Water Transactions Program steering committee. As specified in the 2000 FWP, the Council and BPA want an ISRP review of the criteria, but do not seek ISRP review of each transaction.

During the provincial reviews, the ISRP reviewed several projects that were similar to this current effort; i.e., establish a trust fund that allows the transaction effort to be responsive to and competitive in the real estate market environment. With this trust fund approach, the ISRP emphasized that front-end accountability can be facilitated through development of specific criteria that allow potential land or water acquisitions to be prioritized according to their potential benefits to fish and wildlife. Thus, the review question here is do the interim criteria ensure the accountability needed given the absence of ISRP review of individual transactions.

Given this subsequent absence of ISRP review, it is important that the Water Transactions Program criteria are 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 if the Water Transactions Program criteria are revised with the ISRP additions and comments provided below that the criteria will satisfactorily incorporate all the elements from the 1996 Amendment.

In addition, in its review of proposals, the ISRP asked project sponsors of water transactions (mostly acquisitions) the following questions:

- What will the leased or acquired water add to the base flow?
- What are the existing summer base flows?
- Are there goals for percent increases in flow for each stream in which acquisitions have been targeted?
- Is the diversion high or low in the basin?
- What guarantees or assurances can the project sponsor provide that the water gained by the proposed action will remain in the stream and not be abstracted by a downstream water user? How far downstream does the leased or acquired water remain in the stream?
- How are streams prioritized?
- Are there actual increases in streamflow?
- Is there monitoring and evaluation for presence of fish, and for stock status in general in the tributary? Is there a monitoring program in place? Is commitment from all the parties needed to conduct adequate monitoring demonstrated?

Again, if the Water Transactions Program criteria are revised with the ISRP additions and comments provided below the criteria and checklist should be comprehensive enough to capture the necessary information to scientifically review and prioritize water transaction proposals.

Columbia Basin Water Transactions Program

Draft Interim Criteria for Evaluating Proposals to Secure Tributary Water

Goal: To develop and use innovative transactional strategies [Note: the goal should be to increase tributary flows for the primary benefit of.... Developing and using innovative strategies are a means to achieve the goal, but should not be the goal itself.] to increase tributary flows for the primary benefit of ESA listed fish in accordance with Action 151 from the 2000 NMFS Biological Opinion. The National Fish and Wildlife Foundation (NFWF), the regional entity for the Columbia Basin Water Transactions Program (WTP), will apply the criteria to evaluate proposals received from the Qualified Local Entities (QLEs) participating in the program.

NFWF may [will] evaluate and prioritize water transaction proposals for funding based on the extent to which the proposals submitted by the Qualified Local Entities 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 proposed project provides a watershed context:
 - The proposed project 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 Planning Council's Fish and Wildlife Program and the appropriate subbasin plan (if applicable).]
2. The proposed project satisfies the following administrative components:
 - The entity demonstrates it has [adequate infrastructure and] staff with appropriate expertise in securing/transferring water for proposal implementation.
 - The proposal for securing water [demonstrates that it] is cost-effective in terms of local and regional markets.
 - The proposal documents how opportunities for cost-sharing and collaboration with other entities were considered and developed.
 - The administrative costs are competitive and reasonable for the tasks undertaken.
 - The project budget is sufficiently detailed to document [a linkage of] costs to specific implementation tasks.

- [An NFWF] water transaction checklist has been submitted for specific water transactions.
3. The proposed project satisfies the transactional components:
- The proposal will secure or contribute to securing actual water for in-stream tributary flows [at all times of year when they are needed for fish and wildlife.] [Note: This should be the “objective” in the context of the FWP and ISRP’s review role.]
 - The water rights to be secured are valid, verifiable, and have sufficient seniority to enable water to be transferred to the applicable state trust water system or equivalent for protection in-stream.
 - ~~The quantity to be transferred has been determined by the applicable state agency properly estimated.~~ [Replace with: The applicable state agency has determined that the quantity to be transferred is properly estimated.][In addition, the applicable state agency has identified and certified the extent of the in-stream water use from the point of acquisition to the most downstream point of the water right ...or other wording in points 4, 5, 13 in the checklist below.]
 - [A plan is in place to] ~~Steps have been taken to effect transfer of the water with the applicable state agency.~~
 - Planning, permitting, and landowner/irrigation district agreements are signed or the steps to final transaction completion are identifiable, manageable [,] and timely.
4. The proposed project fully explores the innovative components:
- The proposal will develop a new [, technically sound] transactional strategy or uses an existing innovative [and technically sound] method to increase tributary flow. [Note: Although the RPA is worded to focus on innovative approaches, given the FWP language, the ISRP criteria, and the clear need to increase flow in many places in the basin, why does the method have to be innovative as long as it is technically sound and works?]
 - The proposal demonstrates collaborative efforts with other entities.
 - The proposal considers synergistic effects with other mitigation actions in the area.
 - The proposal is based upon [an existing watershed assessment or subbasin plan in a specific, targeted watershed or it describes how] ~~will develop a strategic analysis of water acquisition priorities in a specific, targeted watershed~~ [will be developed for that watershed.]

- The proposal is based upon or will develop standardized appraisal and valuation methods.
5. The proposed project satisfies ~~one or more~~ **[as many]** of the following biological components **[as possible]**:
- ESA listed species or other depressed native fish stocks **[are expected to]** benefit from the program when implemented. **[Note: Whether or not a proposed flow increase will have the desired effect on the target stock will be a guess in nearly all cases. The best proposals should include an element that describes in detail the experimental design and monitoring protocols that will be employed to obtain an answer to this question.]**
 - Improvement of tributary flows **[at times when they are expected to benefit fish and wildlife].**
 - Improvement of water quality due to increased quantity. **[Note: In many cases, this is probably not answerable in any definitive manner until the project is implemented and assessed.]**
 - Flow restoration will occur in an area **[and at times of year where/when]** low flows are a limiting factor to fish survival. **[Note: This bullet point and bullet point 2 are similar; consider incorporating point 2 here; e.g., Flow restoration will occur in an area and at times of the year when/where low flows are limiting factor to fish and wildlife survival and/or productivity; thus, improvement of tributary flows is expected to benefit fish and wildlife.]**
 - **[Flow restoration is expected to enhance aquatic habitat for fish and riparian habitat for wildlife.**
 - The affected aquatic habitat and adjacent riparian habitat are protected from livestock grazing and other agricultural uses.
 - Natural geomorphic and ecological processes are expected to be enhanced.
 - The instream right remains in the stream as long as possible. **Questions 4 and 5 in the checklist.]**
6. The proposed project satisfies the accountability components:
- Provisions for effective long-term monitoring **[of water flow and benefit to fish and wildlife.]** **[Note: The issues raised above under 5, point 1, could be addressed here. There should be some clarification of what constitutes “effective” monitoring. Experimental design, parameters to be measured, sampling approach and timing and data analysis should be included.]**
 - **[Provisions for long-term monitoring of improvements in water quality.]**

- Documentation and assurance of tributary flow improvements in the short term and the long term.
- The local entity agrees to update the water transaction checklist and forward a final version to NFWF upon completion of a water transaction.

Pre-Transaction Program Development Opportunities: Local entities may find it beneficial to engage in efforts to improve efficiency and efficacy of water transactions through projects that may not be a proposal for a specific transaction. Limited funding may be available to local entities to design transaction tools, financial mechanisms, incentive programs, outreach strategies or other projects that could eventually lead to a more effective water transaction[s] and a water market. When NFWF examines the transaction costs for securing water, the funds provided for these pre-transaction efforts will be considered in the evaluation of total transaction costs attributable to each entity. Proposals in this category may be considered by NFWF on a case-by-case basis.

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

Instructions: The local entity should complete the checklist for NFWF as fully as possible when submitting a project proposal for a specific water transaction. The checklist should be updated and a final version submitted to NFWF upon project completion.

Name of Project:

Local Entity Proposing Project:

Date:

[Principal Objective of the Project: a brief title giving the objective, such as Obtaining 12 cfs of base flow for Young's Creek by purchase of King Ranch's water right number 6.]

1. For what duration will the project secure water for instream flow (e.g., two years, ten years, in perpetuity)? [Is it lease, sale, or other arrangement?]
 2. What is the rate in cfs ~~being proposed to~~ [that will] stay in the river and during what ~~times are these rates~~ [time period is this rate] applicable? Please comment if the cfs rates may fluctuate during the duration of the project. [During annual periods of low flow, what percentage increase above the base low flow level, will the acquired cfs provide?]
 3. What is the total quantity of water in acre-feet being proposed to stay in the river for the duration of the project? [If the project is in perpetuity, give an annual amount.] Please show calculation.
 4. Which river ~~stretches~~ [reaches and their lengths (river miles)] will have increased instream flows [and what will be the approximate percentage increase? If not the same flow increment for several reaches, give breakdown. Estimate for the subject watershed or to the point where the increment is less than one percent of the base flow.] [Note: We are assuming we don't want estimates to the mouth of the Columbia, and should give some idea of a cutoff point, which may be different from one percent which we guessed as a termination quantity above.]
 5. What is the point of diversion for each water right that will be secured for instream flows? [What is the downstream point (e.g., reservoir) at which time the water right is lost (if applicable)?]
- 13.** Will the entire water right be physically deliverable, or will some water be lost in lower reaches, to downstream junior or senior water right holders, or to any regulatory decreases imposed by the state water agency? If water will be lost, then what is the rate in cfs and quantity in acre-feet that is expected to be lost? [Moved from below. Should be consistent or combined with item 4. and 5.]

6. What were the dates of use [Note: Does this mean the date of the water right? If so, reword; e.g., “What are the priority dates of each water right... (same question as # 8)] for each water right that will be secured for instream flow?
7. How much water does the water right holder estimate was used in each of the last five years? [Specify what is the relevance of this question? How does it pertain to the quantity specified in the right?]
8. What are the priority dates that will attach to each water right secured for instream flow?
9. Who is the water right holder entering into the transaction?
10. How did the water right holder use the water before the transaction?
11. What motivated the water right holder to enter into the transaction? [Specify what is the relevance of this question? How will this information be used?]
12. Are there any potential parties who could be injured by this project and how might that injury arise?
- ~~13. Will the entire water right be physically deliverable, or will some water be lost in lower reaches, to downstream junior or senior water right holders, or to any regulatory decreases imposed by the state water agency? If water will be lost, then what is the rate in cfs and quantity in acre feet that is expected to be lost? [Moved above]~~
- 14a. What are the life stages, species name, and ESA status (endangered, threatened) of the [fish and wildlife, specifically Evolutionary Significant Units (ESUs) or Distinct Population Segment (DPS),] expected to benefit by the increased flow? What other fish [and wildlife] species are expected to benefit?
- [14b. What are the current conditions of the riparian zones and the stream channel? For example, has the stream channel been relocated for agricultural purposes, mining, road building, or rip-rapped for erosion control? Document whether or not 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, etc.? Include photographs of the affected reaches.
- 14c. What are the current and future land uses in the historical flood/riparian zone? Is the stream fenced to exclude livestock use? What are the set-back distances of fences from the stream (if appropriate)? Include photographs of the current land uses and fences?]

15. When was the application for the transfer of the water right to instream flow submitted to the applicable state agency? When is the state agency expected to approve the transfer and finalize the amount of water that will be transferred to instream flow?

16. Who will hold the water right once the water is secured for instream flow?

17. How will the increases in flow be documented and monitored? [How will benefits to fish and/or wildlife be documented and monitored?]

[18. How will increases in water quality be documented and monitored?]

~~18~~19. Have copies of the agreement with the water right holder, applicable water right certificates, applications to the state for transfer of the water right to instream flow, the state approval of the change of use, and other important documents been submitted to the applicable agency? Have copies been retained by the local entity and forwarded to NFWF? [Might want to have these documents listed here, with a box to check, since there are several.]

~~19~~20. What is the amount paid to the water right holder, the estimated transaction costs related to this project, and the total cost of the project (water cost and transaction costs)?

~~20~~ 21. What are the foreseeable problems or potential obstacles to project completion? If project is now completed, how were the problems and obstacles overcome? What other information may assist NFWF when evaluating this project or similar projects in the future?

[22. Does the prior owner of the water right retain any uses related to the water right, and what are they?] [Note: This may not be a problem, but there will likely be requests for continued use of the property, retention of some partial water right, etc. that should be disclosed.]

[23. Is the anticipated increase in streamflow sufficiently great to alter the physical shape of stream beds and floodplains, and if so, how? 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?] [Note: Normally, increase in streamflow will benefit the ecosystem, but thought needs to be given to these geomorphic factors, both positive and negative. Having them on the checklist may prompt some thinking.]