The Freshwater Trust™
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Bill Booth, Chair, c/o Nancy Leonard
Northwest Power and Conservation Council
851 SW 6th Ave, Suite 1100
Portland, OR 97204

May 18, 2009

Re: Comments on high level indicators

Dear Chair Booth and Members of the Council,

Thank you for the opportunity to comment on development of high level indicators for the Council's Fish and Wildlife Program. On behalf of The Freshwater Trust (TFT) and our 1500+ members throughout Oregon, we would like to express support for the effort to develop meaningful indicators of restoration success and also to offer several recommendations that we feel would improve the indicators themselves and the data collection underlying the indicators.

Summary

From restoring a river's architecture to working with landowners to keep more water in rivers, TFT works to preserve and restore freshwater ecosystems. Our comments on the Council's high level indicators are therefore focused on indicators related to habitat restoration and protection actions that benefit anadromous fish recovery. While we appreciate the need for the Council to develop indicators related to other aspects of the Council's work such as wildlife survival and dam operation, our comments do not cover those specific topics. We have organized our comments to respond to several of the specific questions posed in the Council's March 13th 2009 memo requesting comments. In sum, TFT recommends that the Council focus on consistency and increasing local capacity for both data collection and reporting by developing common metrics at the site and basin scale, and training local restoration professionals to implement the necessary monitoring and reporting. We recognize this recommendation, if implemented, would result in an increased need for funding focus in these areas, which we feel is not only appropriate but necessary to the anadromous fish recovery and habitat restoration success objectives at hand.

1. Which indicators, among those suggested by the Council or other indicators used in the region, are the most important to inform Congress, Governors and other regional decision-makers about the Columbia River basin's fish and wildlife?

To effectively measure the effectiveness of habitat restoration, indicators should be a composite of site level and basin scale monitoring data. For site level monitoring, we support the proposed parameters, specifically those outlined under Habitat indicators and Passage Barrier indicators. Indicators used in site level monitoring should measure objectives derived from basin-scale limiting factors. At the basin-scale, measures of habitat productivity should include fish numbers for naturally produced (i.e., non-hatchery) adult returns and naturally reared juvenile out-migrants. This is the fundamental unit of measurement to assess the effectiveness of habitat restoration in supporting goals to recover anadromous fish.

Recommendations

Establish guidelines to ensure consistency of site level indicators and their relationship to basin-scale limiting factors. Develop habitat targets and common metrics by basin. Increase basin level monitoring of adult fish returns and juvenile out-migrants so that the effectiveness of habitat restoration projects in achieving a population response can be assessed. Focus monitoring in a manner that distinguishes between hatchery-based / non-habitat related production and production that can be attributed to natural / habitat conditions. This data is currently limited to a handful of basins and its collection is sporadic due, primarily, to inconsistencies in funding.

2. How should these indicators be derived to assure aligning with similar indicators used by the region to report to decision-makers?

Fostering consistency in the indicators used across the multitude of fish and wildlife restoration efforts and entities in the Columbia River basin should be a priority for the Council. As it stands, many different entities implementing restoration work use different language to describe restoration goals and restoration progress. The result is a lack of continuity across data sets. Standardizing indicators of progress would encourage greater and easier cooperation across the multitude of jurisdictions and entities working on restoration.

For example, at a recent meeting to discuss project implementation under BPA's Federal Columbia River Power System Biological Opinion, different entities used more than 20 unique descriptions for the one limiting factor of low summer streamflow. From "low flows," to "lack of water," to "irrigation withdrawals," it was unclear whether entities were trying to communicate the same idea or slight variations on a similar concept. For instance, some entities may have been trying to report on removal of a passage barrier caused by an irrigation dam. Alternatively, they could have been attempting to report on a water conservation project or an outright water purchase with an instream transfer. Each of these project types promote different outcomes and should require tracking and reporting of different indicators.

Recommendations

One way to foster consistency is to work on building monitoring capacity at the local restoration level. As one of the primary drivers of restoration implementation in the Columbia River basin, the Council has the opportunity to influence not only the restoration indicators used under their specific program, but also to be a force for standardizing indicators across all restoration efforts. By training local restoration professionals in how to monitor and report on a standard set of indicators, the Council could begin to foster consistency across efforts and entities while also improving the quality and compatibility of data underlying the high level indicators.

One of TFT's programmatic focuses is building and supporting the capacity of local restoration professionals to implement restoration actions with greater effect and efficiency. As part of this focus, TFT strongly believes that monitoring and reporting of implementation progress and efficacy is vital. In this respect, the Council should think of TFT as a resource in helping to expand and focus the effort needed to support meaningful high level indicators. We would be interested in working with the Council in this capacity, including an examination of how to build local capacity to monitor restoration progress.

3. What is the availability of existing data to support these indicators and what is the quality of the available data?

In general, the availability of data is limited by funding, expertise, and coordination in the development of monitoring plans. The collection of data, specifically effectiveness monitoring of habitat restoration, typically serves individual project needs but seldom supports the assessment of basin-scale impacts.

More specifically, information entered into BPA's PISCES database by BPA contractors is inconsistent. For example, when describing "# of miles of habitat accessed" through passage improvement projects, different contractors may calculate the miles of habitat accessed in different ways. Some record the total number of river miles above the passage improvement site despite another passage barrier existing upstream, while others limit the number of miles accessed to the number of miles upstream to the next passage barrier. In addition, a question exists as to how to differentiate between the benefit of removing a complete passage barrier versus improving passage at a less-than-complete barrier.

In addition to a lack of clarity on reporting specific implementation indicators, the PISCES database lacks an effective method for determining holistic benefits of restoration (or lack thereof). In other words, the success of restoration actions in general cannot be determined by looking at individual actions in a vacuum. For example, if a BPA contractor restored 3 miles of historic stream channel, PISCES would report the benefit as "3 miles of channel restored." However, if that channel lacks sufficient flow to support migrating or rearing fish because of low summer streamflows, or if a passage barrier exists below or above the restored channel, the true benefit of the restoration is not represented simply by the statement "3 miles of channel restored."

As another example, the PISCES database records acre-feet per year and number of miles of primary stream reach improvement per year for water conservation and water transaction projects. This information alone does not represent the benefit of instream flow restoration without also knowing the target flow restoration amount. Restoring 200 acre feet of water through an eight mile reach could be a significant benefit in a small tributary stream, but could be a "drop in the bucket" for a larger river. In addition, increasing flows above a given target amount can result in diminishing returns and potentially inefficient allocation of funds. The missing component in the PISCES system is context.

<u>Recommendations</u>

Again, one solution to this problem is increasing the capacity of local restoration professionals to undertake more holistic monitoring, reporting, and coordination on restoration progress. To account for holistic or lack of holistic restoration benefit, the implementation indicators need to be counted and evaluated together in a way that effectively represents their biological relationship to each other. Without this holistic analysis, the Council could report that thousands of miles of streams were restored and hundreds of miles of habitat were opened up to fish access when in fact, the on-the-ground impacts are far less than stated.

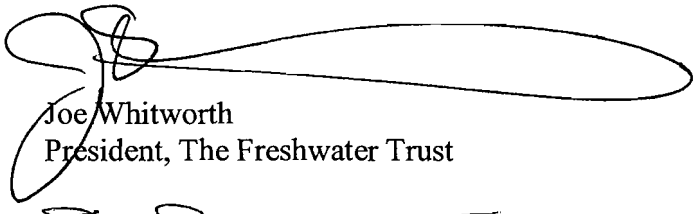
Local professionals are in the unique position of being able to look holistically at restoration on the ground in their service areas. What they lack is guidance on how to do so—specifically, what kinds of monitoring they should undertake, what protocols to implement for that monitoring, and how best to report the results of the monitoring in a way consistent with partners in other locales. Equally important as how to monitor and report, is how to fund monitoring and reporting. This is another obvious area where the Council has influence. By placing a priority on funding monitoring capacity development at the local level, the Council would signal a firm commitment to developing meaningful high level

indicators of restoration progress. TFT likewise is working on ways to increase funding and capacity for local monitoring efforts and this represents another opportunity for the Council to think of TFT as a resource to help develop meaningful indicators.

Conclusion

In summary, TFT strongly supports the Council's effort to develop meaningful high level indicators and would like to offer our services to the extent that we can assist. High level indicators are only as good as the low-level data on which they are based and the best way to improve at the base level is to increase capacity on the ground to collect and report good data that is consistent across multiple restoration jurisdictions and entities.

Again, TFT would like to thank the Council for this opportunity to comment and we sincerely hope to work with the Council more on this issue in the future.



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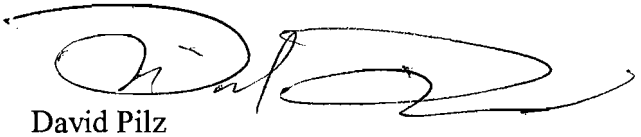

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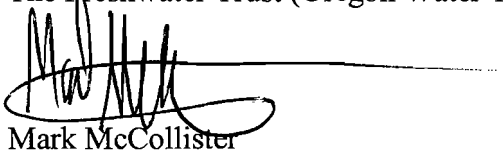

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