Northwest **Power** and
Conservation Council

April 1, 2014

DECISION MEMORANDUM

TO: Council Members

FROM: Nancy Leonard, Peter Paquet, and Tony Grover

SUBJECT: Fish Data Product (2013-001-00)

PROPOSED ACTION: The Fish and Wildlife Committee recommends that the Council support this project for continued implementation of the Fish Data Product project, at a cost not to exceed $85,000, for the following.

1. Maintaining and updating the Fish and Wildlife Program's (Program) Dashboard status and trend graphics and related high level indicator (HLI) graphics.
2. Developing resident fish graphic sets for the Program's Dashboard and HLI report
3. Improving the connection between the Program Dashboard and HLI report for a more efficient data update and maintenance process.

SIGNIFICANCE:

The Council recognized, through the 2012 PERC process that informed the Council's July 2012 and November 2012 recommendations to Bonneville, that with the dissolution of the Columbia Basin Fish and Wildlife Foundation (CBFWF) there was a need to address the resulting technical service and information gaps supporting the Program's reporting needs including status and trend graphics for focal species on the Dashboard and HLI report. The Council recommended during its April 2013 meeting, followed up with the attached decision letter sent on 1 March 1 2013, that Bonneville fund the Fish Data Product project to fulfill this gap by maintaining and updating indicator graphics on the Dashboard and

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HLI, developing graphics reflecting the Program's scope, and, improving the connection between the Dashboard and HLI reports to facilitating updates to graphics. Maintaining up-to-date status and trends graphics is an important first step for informing the adaptive management of the Program's mitigation, protection, and enhancement efforts.

BUDGETARY/ECONOMIC IMPACTS

Not to exceed $85,000 per year (includes overhead), representing about one-third of the 2013 recommended funding.

BACKGROUND

The Council recognized that with the dissolution of the CBFWF there was a need to maintain the information compiled about the Program's focal species that informs status and trend graphics displayed on the Program's Dashboard and that supports the Program's HLI graphics.

This gap was identified through the PERC process and resulted in identification of select technical services that would be required in out-years to ensure the integrity of information needed for the Program. The Council recommended on March 1, 2013 (see attachment 1 for Decision letter) that Bonneville fund the first year of the Fish Data Product to address this gap, by specifically focusing on the three objectives listed below and that the budget for continuation of actions under the 2013-14 work-plan in out-years should continue to decrease. Council members also discussed interest in developing a request for proposal (RFP) process to identify a more cost-effective and efficient manner for conducting this work. The development of an RFP process is relevant to the three objectives below, but will not be discussed in detail until after the 2014 Program is adopted.

Overall, the first year of the Fish Data Product project made great progress addressing the objectives outlined in the 2013-2014 work-plan. An update for each of these objectives is provided below along with suggested next steps:

Status of Objective 1:
- During 2013-2014, the pertinent information was identified, migrated, secured, rebranded, and made accessible through the Program's Dashboards. The information secured from the CBFWF's status of the resources database is accessed from the Council's Dashboard homepage by either selecting a species or a subbasin to view the status of its aquatic species: http://www.nwcouncil.org/ext/dashboard/
  - Next Steps: None, this objective is completed.

Status of Objective 2:
- During 2013-2014, feasibility of automating data flow from the regional databases such as StreamNet, was preliminarily assessed through discussions.

- o Next Steps: in-depth feasibility and potential implementation will be deferred to the RFP process that will be initiated after the adoption of the 2014 Program, as suggested by Council members in 2013. This RFP process will be collaboratively developed by Bonneville, Fish and Wildlife Committee members and the Full Council and may be complete by 2016.

- During 2013-2014, information for populating a Pacific lamprey and white sturgeon Fish and Wildlife Indicators (FWI) that support the Council's HLIs for these species were identified, vetted with the appropriate federal, state, and tribal fish managers. The draft HLI graphics, and supporting indicator graphics, are posted under the Multi-species section of the HLI report (http://www.nwcouncil.org/ext/hli/species.php?q=multi-species) and on the species section of the Dashboard (http://www.nwcouncil.org/ext/dashboard/). By the end of April 2014, the draft FWI and HLI graphics for bull trout will be complete.
  - o Next Steps: Within a two-year period, address the graphical information gap for kokanee, rainbow trout, cutthroat trout, and unrepresented salmon and steelhead populations on the Program's Dashboard and HLI report. Approximately two new graphics sets will be developed annually. These graphic sets will be similar to the lamprey and sturgeon approach, consisting of multiple graphics (e.g. population- scale) being developed for the Dashboard that will support a high level graphic for the HLI report that condenses the information into one graphic (e.g., species, ESU).

Status of Objective 3:
- During 2013-2014, the Pacific lamprey, white sturgeon and bull trout HLI graphics were connected to support Dashboard's FWIs graphics.
  - o Next Steps: improve connection between dashboard and HLI graphics to facilitate data update and maintenance process.
- Improving data flow, including automation of data between data providers and regional databases was not initiated.
  - o Next Steps: as stated above, assessing the feasibility of improving data flow and implementing automation between data providers/regional databases and the Program's Dashboard and HLI graphics is deferred to the RFP process that will be collaboratively developed and initiated after the adoption of the 2014 Program by Bonneville, the Fish and Wildlife Committee and the Full Council.

ANALYSIS
The status update above aligns with the Council's 2013 expectation that Objective 1 would be completed, Objective 2 would be partially completed, and Objective 3 is perceived as ongoing. The partial status of Objective 2 reflects the decision of the Council to sequence the work and not attempt to finish everything within a 12-month time period.

Assessing the feasibility of improving data flow between the data providers and the Program graphics, including potential to automate the flow of data, will be accomplished through an RFP process. The RFP process will be initiated after the 2014 Program is adopted, per council member guidance received during September 2013. This RFP will be developed by Bonneville in collaboration with the Council. Currently, this RFP process is envisioned to be a two-step process, the first step of defining the scope of work will take place in 2015-2016, and the second step of selecting an entity to perform that work will happened in 2016-2017.

The Fish and Wildlife Committee recommends, that Bonneville continue to fund the Fish Data Product work at a reduced budget not to exceed $85,000 per year. Continuation of this work will ensure that the Program Dashboard and related HLI status and trend graphics remain up-to-date and that these reflect the scope of the Program. The Fish and Wildlife Committee suggest that the Council considers recommending that:

- For 2014-2015, Bonneville funds a contract to address the next steps described under objective 2. This contract may be renewed pending further guidance from the Fish and Wildlife Committee in 2015.
- To ensure consistency in the approach and display of this work, Bonneville and Council staff will contract with technical service providers that have experience working collaboratively with the Program's fish and wildlife managers and Council to develop graphic sets similar in format to the lamprey, sturgeon and bull trout graphic sets on the Program's Dashboard and HLI website. Additionally, the technical service providers should have experience to maintain and update the Program's Dashboard status and trend database and the Program's HLI report.
- The budget will not exceed $85,000 per year.
- The contract work-plan will cover updating the information in existing Dashboard and HLI graphics; development of graphics identified in the next steps for Objective 2 above; and, as described under objective 3 next steps, improve the connection between the Program's Dashboard and HLI report.

The Fish and Wildlife Committee will be updated prior to the conclusion of the 2014-2015 contract period, during which staff will be seeking guidance from the Fish and Wildlife Committee on the continuation of this work.

ALTERNATIVES

No equally cost-effective and efficient alternative is currently available given the status of data availability of the need information. If the Fish Data Project is not continued the status and trend information for the Council's dashboard indicator graphics supporting HLIs will become obsolete.

ATTACHMENTS

Attachment 1: Council decision letter sent to Bonneville regarding recommendation to Bonneville for the Fish Data Product's first year of implementation.

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Chair
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Henry Lorenzen
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March 1, 2013

Mr. William C. Maslen
Manager, Fish and Wildlife Division
Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208

Dear Mr. Maslen:

The purpose of this letter is to advise you of the Council's decision on technical services work plan for fish data products. This recommendation was made by the Council at its meeting on February 12, 2012.

In addition, a purpose of this letter is to inform other interested parties of the status of this Council action. The following is a summary of the action taken by the Council at the meeting in February (please see page 4 for the specific decision language).

***Program Coordination and Facilitation Services provided through the Columbia Basin Fish and Wildlife Foundation (Foundation)*, Project #1989-062-01**

Consistent with the July 2012 Council's Regional Coordination recommendation number three, and the Council's November 2012 recommendation for the Status of the Resource (status of the resources; included below), the Steering Committee (SC) met to discuss Council and Bonneville reporting needs to inform a technical services work plan. Specifically, the SC considered the below recommendation in drafting the work plan:

- *A Council and Bonneville staff steering committee should develop a one-year (2013) scope of work for technical services to support reporting needs. The scope of work will be based on identified gaps that must be filled resulting from the absence of the status of the resources (work, products, technical services, or reports).*
- *No later than the January 2013 Council meeting, the SC will recommend the most economic and efficient means to satisfy the scope of work.*

The SC discussed current reliance on the status of the resources information and services and to assess whether a gap would arise with the termination of the status of the resources that would negatively impact Council and Bonneville reporting needs. The SC identified gaps that would result from the absence of the status of the resources that would create hardships on the Council's and Bonneville's reporting needs. These gaps include, but are not limited to, access to resident fish data and non-ESA anadromous fish data that are synthesized to match the Program's structure of subbasin, province, and basin scales.

The main function of the technical services work plan is to compile, filter, extract, organize and format the information needed for Council and Bonneville reporting needs (Figure 1). The accessibility of these data vary depending on whether these are currently accessible as raw field data (e.g., redd counts) or as calculated estimates (e.g., population abundance), and whether this information is in a computer readable format (e.g., StreamNet) that is easily accessed to produce graphics, or a non-computer readable format (e.g., reports) that requires conversion to a computer readable format (e.g., excel spreadsheet).

Figure 1: The role of the technical services is to ensure that the information needed for Council's and Bonneville's reporting needs are identified, located, organized, and available in the required reporting format.

The SC has drafted the following technical services work plan to address the Council's and Bonneville's reporting needs. These reporting needs include graphics for the Council's reports to Congress, to Governors, HLI, dashboards, and Fish and Wildlife Program, and graphics for Bonneville's biological opinion reports and reporting tools such as CBFish.org website. The SC

anticipates some objectives will terminate at the end of the one-year contract on 31 March 2014. However, select technical services will be required in out-years to ensure the integrity of information for Bonneville and Council reports.

To ensure continuity, integrity, and the high quality of work produced thus far that have and continue to inform the data needs described below, the SC recommend that the current providers of this support continue providing this service to the Council and Bonneville. These providers have experience providing these services, established relationships with data providers, an understanding of the Program's information needs and structure, as well as having valuable institutional knowledge that make them the most efficient and effective in gathering, managing, and synthesizing this type of information.

All tasks undertaken as part of this technical services work plan will be completed per guidance provided by the SC. Implementation of these tasks will require the technical services providers to work closely with the SC to ensure a seamless transition and maintenance of information from the status of the resources website and data files to address these Council and Bonneville information needs.

The technical services providers should strive to improve the flow of data between information sources and reports as regional processes (e.g., Coordinated Assessment process) and other changes (e.g., improved data management) improve the ability to access data and derived indicators in the requested format for Council and Bonneville reporting needs. This may involve relying on web-services to access data or other methods to ensure automated data synchronization for these reporting needs. Council and Bonneville should encourage that data and derived indicators be in machine readable format, not static documents such as PDF or Word, to assure accessibility for informing reporting needs.

Bonneville should initiate this technical services work plan contract on April 1, 2013. Bonneville will determine how best to address the other technical services that have been performed by this project sponsor, specifically services related to the Coordinated Assessment of Anadromous Salmonids and Fish Screen Oversight Committee.

Prioritization Guidelines
The SC will meet to discuss task prioritization if the cost exceeds the expected budget for the work plan. Prioritization will be based on:
1. Common needs to both Council and Bonneville being addressed first.
2. Council reporting needs will represent at least 50-percent of the tasks assigned.
3. Not allowing individual needs of the Council or the individual needs of Bonneville to dominate allocation of funds to the detriment of the others' individual needs.
4. Keeping in mind that the Program addresses all anadromous fish (ESA and non-ESA listed), resident fish, wildlife and their habitat, and thus the reporting needs related to all of these subjects will be met. The actual amount of efforts directed to these three subject matters will vary depending on current needs, but the SC needs to keep in mind that reports produced for the Council must have a balanced representation of these topics.

Proposed Work Plan to Support Council and Bonneville Reporting April 2013-March 2014

Objective 1: Identify and migrate the pertinent content of the status of the resources website for Council and Bonneville reporting needs. Rebrand graphics and data portals to merge content seamlessly for Council and Bonneville use.
  End-date: completed at the end of this one-year contract, 31 March 2014

Objective 2: Finalize identification of information to populate the FWI supporting the Council's HLIs, Council's reports to Congress and to the Governors, indicator graphics for the CBFish.org website, and Bonneville's reports. Assist Council and Bonneville staff in setting up more efficient data sharing with regional data portal (e.g., CBFish.org) and data delivery systems (e.g., StreamNet) to reduce effort in accessing and updating this information.
  End-date: substantially completed at the end of this one-year contract, 31 March 2014

Objective 3: Continue to incorporate automated access to information (data, indicators, etc.) from regional databases and other data sources to enhance the efficiency of informing Council and Bonneville reporting needs and to ensure the information included in reports is current and relevant. Incorporate modifications/enhancements in information portrayed (what data, indicators, graphic type, etc) as requested for addressing Council and Bonneville reporting needs. Produce graphics and maps as requested for Council and Bonneville reporting needs.
  End-date: maintained in out-years to ensure integrity of the Council and Bonneville
  reports

See Attachment 1 for description of potential tasks that would be needed during the 2013-2014 contract to meet the above three objectives.

The SC estimates that the funds required to complete these technical services would not exceed $250,000 for the 1 April 2013 to 31 March 2014 contract period (Figure 2). For post-March 2014, we anticipate a reduction in funds in response to the completion of objective 1, and with substantial completion of objective 2. Advancements in accessibility of computer-readable, calculated estimates that would decrease the work load needed to create Council and Bonneville reports will also contribute to this decrease.

<u>Based on the above information and the council staff presentation the Council recommends that Bonneville fund the technical services work plan for fish data products as described by staff, in an amount not to exceed $250,000 for the period April 1, 2013 to March 31, 2014.</u>

     Sincerely,

     Tony Grover
     Director, Fish and Wildlife Division

cc: Marcy Foster, BPA, Peter Lofy, BPA, Paul Krueger, BPA, Byran Mercier, BPA
   Greg Dondlinger, BPA, Dave Roberts, BPA, Jason Sweet, BPA, David Byrnes, BPA,
   Russell Scranton, BPA
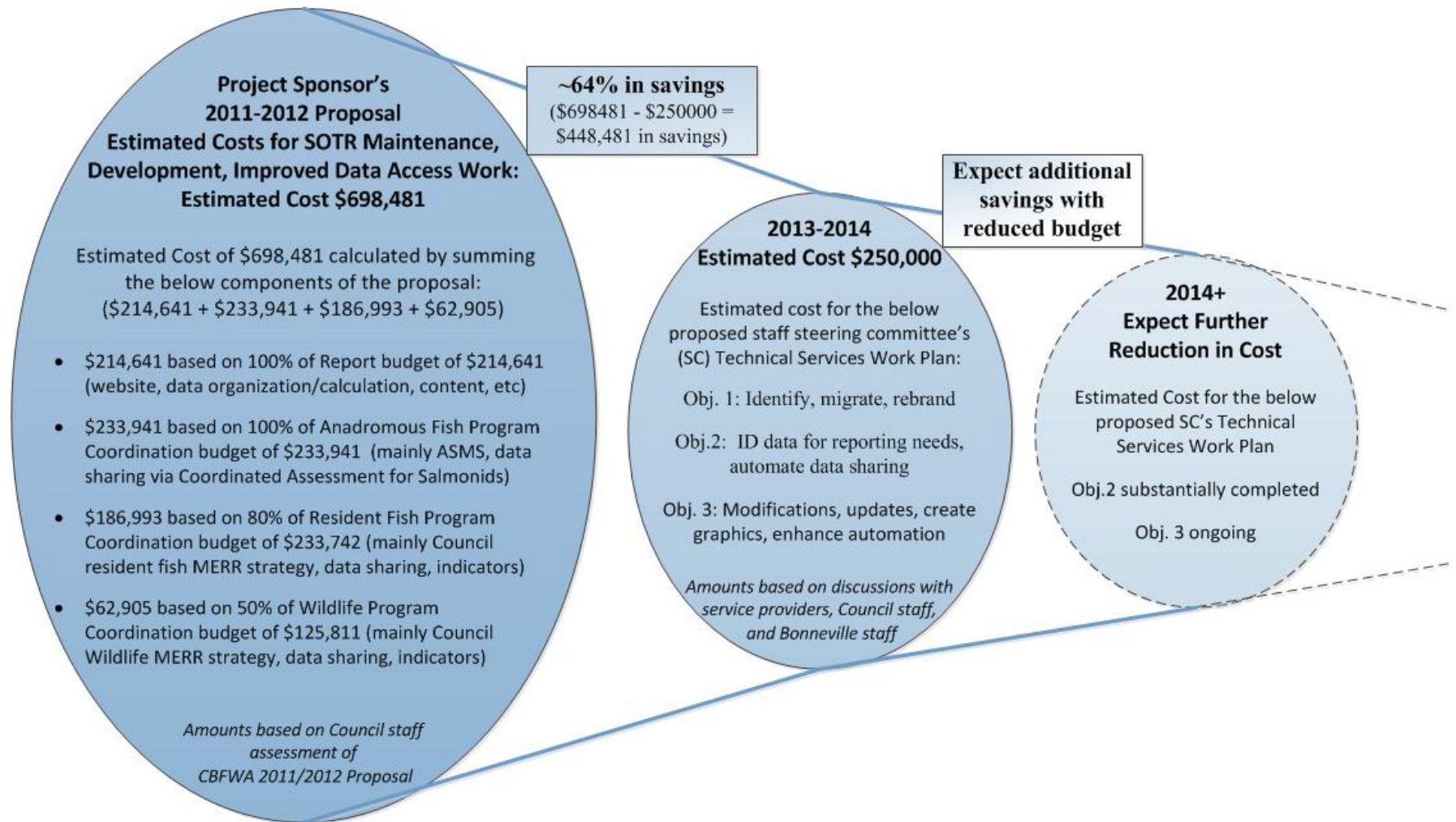
Figure 2: Estimated budget for the proposed staff steering committee's technical services work plan. The largest bubble on the left shows the estimated cost as proposed by the project sponsors in their 2011-2012 proposal form. The second bubble from the left is the staff steering committee's estimated cost for the proposed technical service 2013-2014 work plan that is reduced and more focused than originally proposed by the project sponsors (resulting in about 64 percent in savings). The third bubble from the left shows a further reduced work plan, which combined with more efficient data sharing over-time, would result in further reductions in costs in 2014 and out-years.

Attachment 1: 2013-2014 Suggested Tasks for Bonneville to Consider when Writing the 2013-2014 Contract to Address the Technical Services Work Plan Objectives 1, 2, and 3.

1.1 Evaluate the status of the resources website/databases to identify information to preserve and integrate for Council and Bonneville reporting needs.
1.2 Write code to transfer and load the information needed for reporting needs.
1.3 Revise existing graphics to align with Council and Bonneville standards / desires. This would include removing CBFWA and status of the resources references and updating images as needed.
1.4 Determine best locations to "house" the information that informs the Council's and Bonneville's graphics.
1.5 Assist with the install and/or configuration of software, set-up of backups, and assist with URL modifications to inform Council and Bonneville reporting needs.
1.6 Assist with the maintenance of the "backend" data administration site that allows non-technical personnel to load information that informs graphics for Council and Bonneville reporting needs.

2.1 Work with Council and Bonneville staff to develop FWI that support Council's HLI and other indicators needed by Bonneville. This will include assisting Council and Bonneville staffs in identifying and compiling the information needed to inform these graphics.
2.2 Work with fish and wildlife managers and other data providers to ensure data are used and interpreted correctly in Council and Bonneville reports (e.g. Council HLI, Council report to Congress, Bonneville's reports for FCRPS BiOp).
2.3 Work with StreamNet and CBFish.org to ensure relevant data are available and improve automated access through web-services or other tools to minimize work required to modify the information that supports Council and Bonneville reporting needs.

3.1 Work with Council and Bonneville staff to identify information not currently accessed that is needed for other Council and Bonneville reporting needs.
3.2 Provide the information and synthesized data in the structure required by Council (program reporting scales) and Bonneville (e.g. ESU scale).
3.3 Work with Council and Bonneville staff to determine the illustrations needed, synthesize the information, and develop graphics as requested.
3.4 Work with fish and wildlife managers and other data providers to ensure data are used and interpreted correctly in Council and Bonneville reports.
3.5 Perform monthly updates of biological information (e.g., populations, harvest, hatchery etc.)
3.6 Provide expertise with graphics (maps, graphs, charts, figures, flash, etc.), website, database development, Microsoft windows server, networking, PC support, project management, and coordination.
3.7 Continue working with information providers to indicate how (level of synthesis, grouping, electronic format) the information needed for Council and Bonneville reporting needs could be more easily provided. For example, as the technical services staff contact entities for information, they should discuss how access to this information could be improved, such as through web-services and regional databases. To achieve this improvement, Council and Bonneville will need to encourage that data and derived indicators be increasingly made available in a machine-readable format, and not in static documents.

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