

***Phase II Work Plan For  
Coordinated Assessments for Salmon and Steelhead***

**Collaborative Information Management to Support  
Ongoing Assessments for Columbia River Basin Anadromous Salmon**

This work plan builds off the July 2010 Coordinated Assessments Work Plan and identifies the next steps and expected products from the fishery co-managers. The July Work Plan identified medium-term actions to assess basin-wide data management priorities and this work plan plots the course for those actions.

**Background:**

The Coordinated Assessments Project is an effort to develop integrated data-sharing for anadromous fish related data among the co-managers (state fish and wildlife agencies and Tribes) of the Columbia Basin. The project is led by the Columbia Basin Fish and Wildlife Authority (CBFWA) and the Pacific Northwest Aquatic Monitoring Partnership (PNAMP), with oversight from the Coordinated Assessments Planning Group. We are in Phase II of the project which is an effort to develop the means of sharing anadromous fish abundance and productivity indicators, by defined populations. These data are used in regional scale reporting on progress toward recovery through actions taken under the Endangered Species Act, the Federal Columbia River Power System Biological Opinion and other wide-scale reporting mechanisms such as the Columbia Basin Fish Accords and CBFWA Status of the Resource report. A workshop was held in October 2010 to introduce the co-managers to the concept of developing a Columbia River Basin data sharing strategy that describes a regional approach to moving information from data collection, sharing and evaluation to reporting for informed decision making.

**Phase II – Overview**

The goals of Phase II are:

- 1) Develop individual and regional data sharing strategies that identify the capacities and business practices necessary for integrated data sharing of three specific Viable Salmonid Population (VSP) indicators in the Basin; and,
- 2) Refine and promote the use of Data Exchange Templates (DETs) among the Basin fisheries co-managers as a business practice for sharing the three VSP indicators for salmon and steelhead.

During Phase II, data technicians will be working with the involved state agencies and Tribes to support collection of information needed to populate and evaluate the DETs, and developing individual data sharing strategies (see below). The data technicians will work from late February until July 2011. In April, a Coordinated Assessments Data Sharing Phase II Workshop will be held to allow the data technicians to share their experiences with the DET, and for the Coordinated Assessments Planning Group implementation team to discuss progress on the Phase II effort. Following the April workshop focus will shift toward the compilation of draft individual Data Sharing Strategies into a regional Columbia Basin Data Sharing Strategy for

Coordinated Assessments. This regional strategy will be widely reviewed prior to a regional workshop in June to approve the final draft strategy for submission to NPCC and BPA.

The focus of Phase II is an assessment and understanding how three high level VSP indicators are developed at the population scale:

- Natural spawner abundance
- Smolt to adult return ratio
- Spawner to spawner recruitment ratio

The information necessary to support these three indicators will also support assessment of population trends and effectiveness of restoration activities, and assessments related to hatcheries and harvest effectiveness.

Currently, access to these types of information is an “all or almost nothing” proposition. The indicators are hard to locate, are reported and displayed with no contextual information, or an entire report covering all aspects of the monitoring program is presented with the indicator metrics in the text. This effort seeks a middle ground; create tools and business practices which allow us to share estimates for the three specific VSP indicators and provide a small set of supporting metrics and metadata (descriptive information) designed to improve the transparency of the estimates.

This effort is the first step towards developing a standardized data sharing protocol and will be expanded in later phases to include additional VSP indicators, habitat effectiveness, and hatchery effectiveness data. Work has already begun through PNAMP on exploring Data Exchange Templates (DET's) for habitat effectiveness data sharing.

### **Products:**

The effort this has three components:

- 1) A common Data Exchange Template (DET) which describes the specific data elements to be shared with each indicator,
- 2) Data Analysis Flow Diagrams (DAFD) intended to illustrate the steps used to calculate the indicator for each population (or representative populations) of anadromous fish, and
- 3) A Gaps, Needs, and Priorities (GNP) assessment which will be used to identify the capacity needs of agencies and Tribes to manage and share data. The GNP will also be used to develop individual Data Sharing Strategies in partner capacity, shared technical infrastructure, common DETs, and management and governance.

### **The Data Exchange Template (DET)**

The DET (version 0.9) currently is in an Excel worksheet with several pages – each a separate spreadsheet that allows easy editing and commenting during this continued-development phase. As a prototype, the use of spreadsheets is intended as a one-time proof-of-concept for the data elements. Once everyone has experience using this approach we will discuss alternative means for capturing the desired information and potentially automating the process.

The DET does NOT attempt to capture all of the primary observational and measurement data on which the indicators are based. The metrics and descriptive information captured within the DET are intended to provide additional context and background but are not intended (nor are they usually sufficient) for users to re-calculate the indicators themselves.

Information for the indicators is recorded on separate worksheets in the Excel workbook. Please fill out each indicator and the related information for your populations in the column labeled “Data”. Some of these fields are drop-down, most are free-text. Alongside this column is an “Expected Value” field which describes the type or format of information that should be entered and a “Comments” column for you to enter any comments or elaborations on the current field. Please use the “Comments” column to provide any feedback you may have, especially regarding the following:

- Additional options that should be included in the pick lists.
- Any ambiguities in the provided fields or field explanations.
- Explanations on how you are interpreting the question for your population (if the question is not clear).
- How or why your population may not exactly fit the way we approached or described the indicator.

The DET is designed with comment fields for all rows to provide space for explaining issues, problems or explain why a field is blank. The comment fields will help accumulate information on gaps in information or other needs. The DET workbook is organized with a separate work sheet for each of the three indicators. While some of the supporting metrics requested in the DET often have significant value of their own and could be presented in greater detail, in this effort they are only intended to explain or provide context for the primary indicator. We are not focusing on these supporting metrics in this trial.

The data technicians will begin implementation of DET Version 0.9 immediately following their training. Representative populations will be identified by the agencies and Tribes for their initial efforts. StreamNet will be collecting the initial DET data into a centralized database to assist in the future development of a more automated DET. The implementation team will consider all input from the data technicians, and evaluate the data obtained during this effort, to re-evaluate the DET and update into a DET Version 1.0. It is anticipated that the states and Tribes will attempt actual implementation of the DET Version 1.0 beginning in FY 2012.

### **The Data Analysis Flow Diagrams (DAFD)**

The DAFDs are intended to provide a visual representation of how the primary indicators are calculated from the constituent metrics for each of the populations. The DAFDs outline the steps in analysis from field data collection to final estimate for that population. Each of the populations in the Columbia Basin is unique, and as a result the exact calculation for each of the indicators is often somewhat different. The DAFD will provide valuable context for each indicator and its supporting metrics in the DET. In addition, some agencies and Tribes have found the DAFD invaluable for eliciting and documenting their own internal procedures. You may find it easiest to do the DAFD first, to document the process, and then fill in the DET.

The DAFD's primary purpose will be to help support and explain in common currency the data sharing needs and priorities for the agencies and Tribes. In that context, the DAFDs should help explain where blockages to data flow may exist and where priority investments could assist in data sharing.

### **Data Sharing Strategy (Gaps, Needs, and Priorities)**

Based on completing representative DETs and DAFDs, the agencies and Tribes will assess their data sharing capabilities and develop a Data Sharing Strategy that identifies their entities gaps, needs, and priorities in a consistent and comparable format. The strategies should include:

- 1) A description of the structural organization of the agency/tribe as it relates to developing and sharing the indicators,
- 2) Evaluation of the results of implementing the DETs and developing DAFDs and identification of gaps and needs,
- 3) A proposed set of steps to begin using the DET for sharing the three indicators as a common business practice, and
- 4) Recommendation and justification for funding improvements in data sharing capabilities within the entity for these three indicators.

The implementation team will assist the agencies and Tribes with their Data Sharing Strategies. They will provide a template and work individually with each agency and tribe to complete their assessments and draft their strategies in a common format and terminology.

Once the individual assessments are complete, the implementation team will combine the strategies into a single comprehensive draft Columbia River Basin Data Sharing Strategy. This will include a compilation of the recommendations from the individual strategies, identification of opportunities for shared infrastructure investments, and recommendations for alignment of existing data management projects with gaps and needs identified. This comprehensive strategy will be circulated for review by the individual agencies and Tribes prior to a regional workshop in June to approve the final draft strategy for submission to NPCC and BPA, among others.

### **Next Steps:**

Each agency and tribe has been asked to prioritize a list of populations for which DETs and DAFDs would be completed. The representative populations will provide a mix of data collection and estimation methods, as well as allow each agency and tribe to work on the populations of greatest interest and/or need. The data technicians will complete as many of the specified priority populations as resources allow. The data technicians will become familiar with agency and tribal data systems and work with staff using common terminology agreed to from this effort.

The information collected will be collated and synthesized in preparation for an April Coordinated Assessments Data Sharing Workshop. This development phase of the DET and DAFD, along with the preliminary results of the GNP, will help us identify course corrections

for this effort and discuss development of the final draft state and tribal Data Sharing Strategies. A Phase III Work Plan will be drafted at that workshop.

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**Draft Timeline:**

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Task Name	Duration	Start	Finish
<b>Coordinated Assessments Phase II</b>	<b>174 days?</b>	<b>Tue 2/8/11</b>	<b>Fri 10/7/11</b>
<b>Data Technician Support Task</b>	<b>109 days?</b>	<b>Tue 2/15/11</b>	<b>Fri 7/15/11</b>
Data technician training	3 days?	Tue 2/15/11	Thu 2/17/11
Data technicians complete initial DET/DAFDs	40 days?	Mon 2/22/11	Fri 4/15/11
Attend mid-term workshop to share experiences	5 days?	Mon 4/18/11	Fri 4/22/11
Continue DET/DAFD completion and support development of Data Sharing Strategy	60 days?	Mon 4/25/11	Fri 7/15/11
<b>Data Exchange Template (DET)</b>	<b>167 days?</b>	<b>Thu 2/17/11</b>	<b>Fri 10/7/11</b>
Work Group (WG) release DET Version 0.9 for use by data technicians	0 days	Thu 2/17/11	Thu 2/17/11
Data technicians complete DET's for representative populations	35 days?	Mon 2/21/11	Fri 4/8/11
StreamNet accumulate DET data in a central repository for evaluations of process	15 days?	Mon 3/21/11	Fri 4/8/11
Work Group discuss DET at mid-term workshop based on preliminary experience	5 days?	Mon 4/18/11	Fri 4/22/11
Data technicians continue completion of remaining DETs	65 days?	Mon 4/25/11	Fri 7/22/11
WG Accumulate comments and experiences of data technicians on use of DET	32 days?	Mon 4/25/11	Tue 6/7/11
WG Assess effectiveness and develop implementation prototype DET	88 days?	Wed 6/8/11	Fri 10/7/11
Release DET Version 1.0 for implementation in FY 2012	0 days	Fri 10/7/11	Fri 10/7/11
<b>Data Analysis Flow Diagrams (DAFD)</b>	<b>81 days?</b>	<b>Tue 2/15/11</b>	<b>Tue 6/7/11</b>
Share ODFW experience with data technicians	3 days?	Tue 2/15/11	Thu 2/17/11
Develop DAFDs as needed by data technicians and A/Ts	40 days?	Mon 2/21/11	Fri 4/15/11
Discuss usefulness and contents at mid-term workshop	5 days?	Mon 4/18/11	Fri 4/22/11
Use DAFDs to support GNP assessment	32 days?	Mon 4/25/11	Tue 6/7/11
<b>Data Sharing Strategy (Gaps, Needs, and Priorities)</b>	<b>101 days?</b>	<b>Tue 2/8/11</b>	<b>Wed 6/29/11</b>
Develop Phase II Work Plan	9 days?	Tue 2/8/11	Fri 2/18/11
MAG Review and approve Phase II Work Plan	0 days	Wed 2/23/11	Wed 2/23/11
PNMMP DMLT review and comment on Phase II Work Plan	0 days	Fri 3/11/11	Fri 3/11/11
Develop TOC/format for individual agency and tribal Data Sharing Strategies (GNP)	30 days?	Mon 2/28/11	Fri 4/8/11
Get regional approval of Agency/Tribe Data Sharing Strategy template	5 days?	Mon 4/18/11	Fri 4/22/11
Agencies and tribes develop individual Data Sharing Strategies (GNP) w/ assessment team	25 days?	Mon 4/25/11	Fri 5/27/11
CA Planning Group assessment team develop CRB Data Sharing Strategy	18 days?	Mon 5/30/11	Wed 6/22/11
Regional Workshop to review individual strategies and agree on CRB Strategy	0 days	Wed 6/29/11	Wed 6/29/11

