

Introduction

Salmon and steelhead monitoring programs within the Columbia Basin are designed to inform a multitude of management needs. These management needs include meeting the requirements of the Biological Opinions on the operation of the Federal Columbia River Power System, tracking progress toward recovery of populations listed under the Endangered Species Act, the Northwest Power and Conservation Council's Fish and Wildlife Program and state/tribal/federal management of harvest and hatcheries. Given the considerable expense of monitoring efforts in the Basin (e.g., BPA expends roughly \$100M per year alone), the overlapping management needs of the various entities in the Basin, and the lack of a clear overall monitoring strategy, there is considerable opportunity to improve the coordination and cost effectiveness of monitoring efforts to better meet regional information needs.

The following parties are committed to making a good faith effort to create a comprehensive strategic plan for monitoring and evaluation within the anadromous zone of the Columbia River basin (henceforth referred to as the 'comprehensive anadromous m&e strategy'):

- Bonneville Power Administration (BPA)
- Columbia Basin Fish and Wildlife Authority (and its member entities) (CBFWA)
- NOAA-Fisheries Service (NOAA)
- Northwest Power and Conservation Council (NPCC)

In the most general terms, the mechanism to develop and implement a comprehensive anadromous monitoring and evaluation (m&e) strategy is:

1. Compile a list, or lists, of existing m&e projects and programs, including costs, purpose, geographic location and sponsor.
2. "Truth" the lists developed in step 1 through facilitated face to face meetings around the region (sub-regional meetings) with the sponsors, state & tribal monitoring experts, and interested parties. These regional meetings will likely occur in May and June 2009.
3. At the same sub-regional meetings:
 - a. Develop ESU/DPS specific monitoring visions for all necessary monitoring;
 - b. Identify ESU/DPS specific gaps, redundancies and potential efficiencies; and,
 - c. Identify potential strategies to fill gaps and improve efficiencies at the ESU/DPS level.
4. Bring policy-aware, technical m&e experts together in a facilitated regional workshop environment to develop a set of comprehensive anadromous m&e strategy proposals ranging from 'bare-bones' to 'full meal deal'. This workshop will include opportunities for iterative check-ins with management in each organization. This workshop will likely occur in July 2009.
5. The outcome of this workshop will be 'vetted' as appropriate and necessary with regional decision makers.

Initial Strategy:

The desired outcome of these workshops is an agreed to monitoring framework and project specific strategy for anadromous fish VSP, habitat, hatchery, and hydro effectiveness monitoring within the Columbia Basin. The strategy developed within the monitoring framework should inform development of the monitoring programs necessary to meet the many management needs. While the monitoring framework should be useful for informing state and tribal programs, HCP monitoring needs and ESA recovery plans, an important outcome will be development of a strategy that identifies projects to be funded to meet BiOp and Fish and Wildlife Program needs. The final product should identify Fish and Wildlife Program and BiOp funding needs for an amount not to exceed the current anadromous fish monitoring (as identified by the NPCC list) less 10% plus an additional \$18M for BiOp M&E. We would achieve this by confirming and communicating the assessments of current monitoring efforts, developing a common vision, completing a gap analysis, and developing alternative strategies to fill prioritized monitoring gaps under different funding scenarios.,.

A basin-wide monitoring framework would emerge from this process that would encompass ESA-recovery monitoring needs, BiOp RPAS, the needs of the Fish and Wildlife Program and be integrated with the management needs of the fish and wildlife managers and private utility HCPs. The cost of that monitoring will be shared (e.g., some of it will be responsive to BiOp monitoring requirements, some of it is supportive of the F&W Program, some of it will be part of NOAA-negotiated HCPs/HGMPs/etc, some of it will be part of the states' and tribes' broader monitoring programs, some of the gaps will need to be funded/filled by NOAA, etc"); -The final monitoring strategy to implement the framework will be developed through an iterative process where policy representatives would review and provide feedback to the technical staff on alternative monitoring strategies finally arriving at clear priorities for monitoring that could be agreed to and implemented within the available budget.

Refined Expected Outcomes:

A prioritized list of monitoring actions in categories 1-3 below will be developed that integrates the following areas:

1. VSP Parameters:
 - i. Adult Abundance
 - ii. Productivity
 - iii. Spatial Distribution (could be obtained through efficient design of i & ii)
 - iv. Diversity (also could be obtained through design of i ii& iii)
2. Habitat effectiveness monitoring (this would include Habitat Monitoring and juvenile response monitoring)
3. Hatchery effectiveness monitoring

Many mainstem and estuary/ocean projects are funded by different players and/or coordinated in different forums (i.e. AFEP). Projects in these two areas should be coordinated with this effort either simultaneously or sequentially.

(From BPA comments - more follow-up and definition will come on this once Bill has the opportunity to discuss with the ACOE—this has been flagged internally at BPA and with Corps with expectation of further discussion the week of May 4)

Clarifications on the Expected Outcomes:

A comprehensive, integrated monitoring framework and set of actions/projects to address recovery planning, BiOp RPAs, Fish and Wildlife Program, or co-managers needs for broader fishery management. It should be noted that the latter categories are nested, and where obligation or responsibilities of one entity end and where others need to step up isn't always crystal clear. Said differently, there is particular information needed for BiOp monitoring purposes, and that information is a subset of broader information needed by NOAA for recovery planning and/or for NOAA-negotiated HCPs/HGMPs, by the Council as part of the Fish and Wildlife Program, or by the fish and wildlife co-managers for broader fishery management purposes.

There's a fine line, though an important one, between VSP parameters as they relate to recovery planning or delisting monitoring needs, and Fish Population Status monitoring needed for BiOP RPA purposes and the needs of the Fish and Wildlife Program. For the BiOp, RPA sub-actions (under Fish Population Status Monitoring) would focus the needs to: 1) Status and Trend monitoring in the Pilot Sub basins, 2) B-run Steelhead, and 3) NOAA guidelines for recovery plan monitoring. Also, the BiOp needs and priorities for population-specific coverage and monitoring intensity will be influenced by tributary habitat and hatchery action effectiveness monitoring RPA sub-action needs.

Development of a comprehensive monitoring strategy is most critically needed for addressing the areas of 1) fish population status and trend monitoring, and 2) related tributary habitat monitoring, including action effectiveness monitoring, and 3) hatchery M&E; and less critical in the areas of a) hydro effectiveness monitoring (given that so much hydro effectiveness monitoring is coordinated/funded via AFEP), b) estuary/ocean monitoring (the Corps is the AA lead and much of this work is coordinated in other processes), and also c) data mgt. We propose limiting the scope of the workshop to the 3 former categories. Including the latter categories would considerably increase the complexity and number of involved parties at the workshop.

Boundaries/ Principles:

- Must be legal. That is -- the outcome must comply with the Power Act, ESA, NEPA, APA, etc. Also, must be consistent with entities statutory obligations.

- Scope is limited to anadromous fish (primarily salmon and steelhead; also considering lamprey) monitoring & evaluation including both ESA-listed and non-listed populations (the plan may flag points of “intersection” with monitoring for resident species).
- The product will be reviewed by the ISRP and then a Council recommendation process.
- Must be consistent with the Council's Fish & Wildlife Program, including BiOp and Accord commitments.
- Must meet the BiOp M&E and reporting needs that have been agreed to between NOAA and the Action Agencies.
- Should support, in-part, recovery planning goals/needs – i.e., it is hoped that a basin-wide monitoring framework would emerge from this process that would guide ESA-recovery monitoring. Of course the cost of that monitoring will be shared (e.g., some of it will be responsive to BiOp monitoring requirements, some of it is supportive of the F&W Program, some of it will be part of NOAA-negotiated HCPs/HGMPs/etc, some of it will be part of the states' and tribes' broader monitoring programs, some of the gaps will need to be funded/filled by NOAA, etc.)]
- Must be implementable (e.g., within BPA's contracting process where applicable);
- Must be consistent with the Accords, though outcomes could involve recommendations for changes in some Accord M&E projects (though for such changes to be implemented, they would need to be agreed-upon by the Accord party)

Budget:

The development of monitoring strategy needs to identify work to be funded by multiple sources (BPA, HCPs, other federal agencies, co-manager funds, etc). However an important outcome of the exercise is to identify the level of funding to be provided by BPA. The initial budget for monitoring intended to be funded by BPA is as follows:

Existing monitoring budget (F&W Program FY09 SOY) allocated to projects within these focus categories less 10% (this will include a portion of the \$18 million in new BiOp work that was budgeted to existing projects and new placeholder projects) plus other Anadromous Fish Monitoring Programs in the Basin not funded by BPA.

In terms of the \$18M of new BiOp-related RM&E funding that was included in the F&W Program FY09 SOY Budget, about \$15 million was actually placeholder (about \$3 was expansion of existing projects). Of the \$15 million, about \$10 million has application to the focus areas and/or is not already nailed down to a specific project. Of the \$10 million, we expect BiOp criteria connections for the majority of it coming out of the AA/NOAA/NPCC RM&E workgroup review process. Therefore, it will be equally important to ensure that the workshop scope provides adequate opportunity to address both the reprioritization of existing work and a re-focusing of some Accord projects (which would require mutual agreement by the Accord signatory).

A list of current M&E projects (see (a) immediately below) that fall with the scope of this M&E review will need to be developed; in fact, several lists already exist and an important initial step will be to develop an agreed-upon single master list. Ken MacDonald, Jim Geiselman, Bruce Crawford, Nancy Leonard, and Erik Merrill have started this process.

Process:

- a) Confirm a common assessment of existing monitoring, then
- b) Develop a common vision for needed monitoring, and
- c) Develop a gap analysis and prioritized strategy to fund the gap within the BPA budget
- d) Develop a strategy to fund any outstanding gaps in monitoring

Pre-workshop discussions (estimate it may require five, 2-day meetings) across the various regions, as facilitated by Bruce Crawford and CBFWA, will help develop a common understanding of the ongoing work (a, above) and serve as a basis for the assessment by technical staff in the workshop to identify ongoing projects that support the monitoring visions, outstanding gaps, a prioritized list of new work for a targeted solicitation, and a clearly identified potential projects that may need to be adjusted to support the vision, identify redundancies and a phase-out list of ongoing projects that are not a priority (b and c, above)

Facilitation:

Meeting on May 6 with PSU/OR Consensus Program to explore potential for design and facilitation. ...

Timeline Outline:

Refine and Verify the Scope and Expectations

NPCC Review

Fish and Wildlife Committee and full Council Briefing May 12, 2009

CBFWA Review

review with MAG

review with Members

review with MAG 2nd time

final approval by members

BPA/Actions Agency Review

Engage Facilitator

Initial meeting (May 6)

design 5 day workshop

Prepare for the Pre-Work Meetings

Assimilate Inventory and Assessments of Monitoring

Design spreadsheet tool to document/ display monitoring frameworks for each ESU/DPS

Review and verify spreadsheet

Send out for initial population by technical participants

Develop finalized design of VSP, habitat and hatchery effectiveness monitoring for each ESU/DPS, assess the gaps and provide initial strategies to fill the gaps to implement each design at Pre-Work Meetings around the basin

Lower Columbia

Snake

Upper Columbia

WA Mid Columbia

OR Mid Columbia

Finalize BiOp RPA coverage assessments from the AA/NOAA/NPCC RM&E workgroups and provide as Pre-workshop material

Iteratively design three basin wide strategies at separate funding levels (i.e., low, medium and high) to implement and integrate the BiOp RPA coverage assessments and the VSP level monitoring designs for each ESU/DPS at a regional five day workshop.