COLUMBIA BASIN
FISH AND WILDLIFE AUTHORITY

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Coordinating and promoting effective protection and restoration of fish, wildlife, and their habitat in the Columbia River Basin.

The Authority is comprised of the following tribes and fish and wildlife agencies:

Burns Paiute Tribe

Confederated Salish and Kootenai Tribes of the Flathead Reservation

Confederated Tribes of the Umatilla Indian Reservation

Confederated Tribes of the Warm Springs Reservation

Confederated Tribes and Bands of the Yakama Nation

Idaho Department of Fish and Game

Kootenai Tribe of Idaho

Montana Fish, Wildlife and Parks

National Marine Fisheries Service

Nez Perce Tribe

Oregon Department of Fish and Wildlife

Shoshone-Bannock Tribes of Fort Hall

Shoshone-Paiute Tribes of Duck Valley

U.S. Fish & Wildlife Service

Washington Department of Fish and Wildlife

Coordinating Agencies

Columbia River Inter-Tribal Fish Commission

Compact of the Upper Snake River Tribes

DATE: August 11, 2010

TO: Wildlife Advisory Committee (WAC)

FROM: Doug Calvin, Chair

SUBJECT: July 21-22, 2010 WAC Workshop Final Action Notes

Wildlife Advisory Committee Meeting
July 21-22, 2010
Confederated Tribes of the Umatilla Indian Reservation
Nixyáawii Governance Center
Pendleton, Oregon

The support material for the meeting is posted at: http://www.cbfwa.org/committee_wac.cfm

Final Action Notes

July 21 Attendees: Doug Calvin (Chair, CTWSRO); Scott Soults (Vice-chair, KTOI); Angela Sondenaa (NPT); Paul Dahmer and John Pierce (WDFW); Jason Kesling and Kyle Heinrick (BPT); Carl Scheeler and Jenny Barnett (CTUIR); Lawrence Schwabe (CTGR); Peter Paquet (NPCC); David Byrnes (BPA); and Tom Iverson and Paul Ashley (CBFWA)

By Phone: Aren Eddingsaas (SBT) and Chase Davis (UCUT)

July 22 Attendees: Doug Calvin (Chair, CTWSRO); Scott Soults (Vice-chair, KTOI); Angela Sondenaa (NPT); Paul Dahmer and John Pierce (WDFW); Jason Kesling and Kyle Heinrick (BPT); Carl Scheeler and Jenny Barnett (CTUIR); and Tom Iverson (CBFWA)

By Phone: Aren Eddingsaas (SBT)

Day 1 – July 21, 2010

ITEM 1: Introductions and Approve Agenda

ACTION: Agenda was approved as written.

ITEM 2: Review and Approve as Final June Draft Action Notes

ACTION: The WAC approved the June 22, 2010 Action Notes as final with no modifications.

ITEM 3: Development of Wildlife Management Plan Template and Review Criteria

Discussion: David Byrnes led a discussion on the importance of wildlife management plans – both as contract deliverables under BPA contracts and as follow-up compliance required under NEPA (as BPA interprets NEPA). The general NEPA process was reviewed for 1) actions needed leading up to the time of purchase and 2) actions needed following the purchase. The committee agrees that a more detailed discussion was warranted for everyone to better understand the NEPA process as it applies to wildlife acquisitions (especially as it applies to the post-purchase period). The committee requested that the topic be added to the August committee meeting agenda. David will arrange for one of the NEPA managers to attend the meeting and address the topic of why and how we address NEPA following acquisition and the important role management plans could play in that process.

As BPA continues addressing the Council's Wildlife Categorical Recommendations, David reported that BPA staff are developing an inventory of wildlife management plans for existing projects this summer. As the Council's recommendations pointed out, a number of ongoing projects have not completed management plans for acquired property under the program, or have not recently updated prior plans. BPA will be working with Council staff and wildlife managers as the results of the review are developed this summer to identify the

status of wildlife management plans and discuss schedules for getting caught up on all overdue plans, and update older plans (greater than five years old).

A related topic was briefly discussed regarding the need for a consistent format for all management plans. This topic was also scheduled for additional discussion at the August meeting.

ACTION: This topic will be added to the August WAC meeting agenda.

ITEM 4: Alignment of CBFWA Work Plan and NPCC Monitoring, Evaluation, Research, and Reporting Plan (MERR)

Discussion: Tom provided some background and context for today's meeting. The Northwest Power Act directs the Northwest Power and Conservation Council (Council) to develop a report that describes the effectiveness of the Fish and Wildlife Program. With the adoption of the 2009 Fish and Wildlife Program (Program), the Council initiated development of high level indicators for fish and wildlife within the Columbia River Basin. Based on the Program, the Council recently developed the MERR Plan to provide a common framework for optimizing monitoring and evaluation efforts implemented through projects. On a similar course, the revised CBFWA work plan has directed CBFWA and staff to support and facilitate coordinated basinwide assessments for the purpose of evaluating the status of the species and implementation of strategies to help determine success of the Fish and Wildlife Program. Council staff and CBFWA staff have agreed that these two efforts must be well coordinated and the CBFWA effort will initiate the development of monitoring strategies described in the MERR, with the Council staff joining the effort as it is underway to ensure participation by non-CBFWA entities. The goal of the MERR is to assess the progress of the Program while avoiding duplication of monitoring efforts, in the most cost effective way. The Council will ultimately be responsible for the monitoring strategies, based on the recommendations by the fish and wildlife managers; however, the managers require these strategies to support the Status of the Resource Report, as well. The task for the WAC is to determine what information that is collected at the project scale can be rolled up to the basinwide scale in a meaningful way.

Tom discussed the three types of monitoring described in the MERR: 1) Compliance monitoring, 2) Status and trends monitoring, and 3) Effectiveness monitoring. The Wildlife Crediting Forum will be addressing compliance monitoring through the development and assessment of the wildlife crediting ledger. The focus of the WAC efforts will be to develop a monitoring framework for status and trends and effectiveness related to the projects funded in the Council's Program. This framework will have to rely heavily on existing monitoring strategies, since new funding is unlikely for this effort.

ITEM 5: Wildlife Monitoring Strategy Organization and Structure

Discussion: Scott provided a presentation to set the context for determining a framework for developing a monitoring strategy consistent with the MERR Plan (see presentation at: http://www.cbfwa.org/committee_wac.cfm). Scott reviewed the outline and guidance from the MERR. The topics addressed included the MERR sections that followed the eight components of the WMIS described in the July draft MERR:

i. Management questions and indicators
ii. Objectives and performance standards
iii. Prioritization criteria and rationale
iv. Identification of priorities
v. Standards for data quality, including precision and accuracy
vi. Preferred study designs and statistical analysis
vii. Preferred performance measures and protocols, and
viii. Data management, data sharing, and reporting.

Many of these MERR sections have already been address by project sponsors through existing vegetation and wildlife survey methodologies; where these surveys demonstrate a high level of scientific rigor (i.e., examples include section ii, v, vi, and vii).

Some of the tough tasks ahead include developing and deciding on biological indicators for wildlife which will require establishing surrogates for population monitoring since most of the wildlife populations are highly migratory and a direct connection between habitat protection strategies and population health are very difficult to determine. However, most of the projects funded in the Program collect data that can be rolled up in some way.

ITEM 6: Biological Indicators for Wildlife

Discussion: Scott explored some ideas for rolling project level data up using vegetation classes and using an assessment framework for facilitating combining data from multiple projects. He reviewed actual data from the Albeni Falls project to demonstrate how data collected within different projects may contribute to a larger roll-up assessment. Scott's main point, to which the WAC agreed, was that a common vegetation class system could be agreed to in order to establish a framework to support information roll-up for high level indicators for wildlife.

The WAC brainstormed a list of different vegetation class systems available and listed them on a flip chart: HEP Team classifications (Paul described the classification scheme currently used by the HEP Team), NHI-IBIS, National Vegetation Classification System, ICEBMP, and others. The WAC reviewed several of these on-line to build some familiarity.

The WAC then brainstormed a list of criteria for evaluating which classification system may work best for the basinwide monitoring strategy. The first criterion was that the system provided for the ability to roll data up or down and was flexible enough to work with both cover type and vegetation class. The system must be equally applicable across the Columbia River Basin. The system needs to be supported by quantitative metrics (independent variables) to support statistical analyses and measurable responses. The system must have sufficient data layers and data available to support long term implementation. If multiple classification schemes are chosen, they must be able to crosswalk by the user into a common scheme.

It was stressed that current survey methods, protocols and data collected by HEP weren't perfect and HSI models were not the preferred method for some monitoring and analysis of faunal and floral communities, but the long employed, scientifically tested, vegetation survey methods should form the WMIS foundation for the Basin monitoring efforts. As stated in the WMIS Organization and Structure presentation, many MERR sections (i.e., study designs and statistical analysis) have been addressed by the existing surveying models and methods. Moreover, why re-create the monitoring wheel when stable, statistically validated vegetation methods exist and are being used?

The WAC applied the pre-determined criteria against the several classification systems and discovered that the National Vegetation Classification System (NVCS) may be the best fit for a basinwide framework to support the MERR Plan. PLEASE REVIEW TABLE 1 AND PROVIDE COMMENTS AND FEEDBACK TO TOM PRIOR TO THE AUGUST WAC MEETING.

ACTION: The WAC is leaning towards adopting the National Vegetation Classification System (NCVS) as the basinwide framework for the WMIS. Tom will work with others to draft a first iteration of the general framework for discussion at the next WAC meeting. John Pierce will coordinate an effort to cross walk HEP survey data with NCVS definitions for a project in Washington to evaluate the usefulness of the NCVS for regional reporting.

Table 1. WAC review of vegetation classification systems.

	Ability to roll data up and work with both cover type and vegetation class.	Equally applicable across the Columbia River Basin.	Supported by quantitative metrics (independent variables).	Sufficient data layers and data available to support long term implementation.	Able to crosswalk into a common scheme.	Highly Vested?
HEP Team	No	Yes	Yes	No	Yes	Yes
NHI-IBIS	Yes	No	Yes	Yes	CHAP	?
National Vegetation Classification System (NVCS)	Yes	Yes	Yes	Yes (30m)	Yes	OR, ID, WA, WestGov, LCC, BLM, USGS
ICEBMP						
Others?						

Day 2 – July 22, 2010

ITEM 7: Management Questions and High Level Indicators

Discussion: With the adoption of the vegetation classification framework the WAC then moved on to discuss what information to present within this framework and at what scale. High level indicators have not really been developed for the wildlife Program, short of habitat unit reporting against the crediting ledger. The WAC discussed what data each agency/tribe are currently collecting that could be rolled up to address a high level indicator.

What types of data do we currently collect?

a) Abundance and dominance of native plant species
b) HSI variables that are linked to wildlife species
    a. What HSI variables are used by Hydro project
    b. What HSI variables could assist in the assessment of ecological services
    c. What HSI vegetation classes may assist with biological integrity
c) Cover Types and Vegetation Classification Needs
    a. Associate cover types (labeled under HEP surveys)

b. Bring examples of crosswalks (HEP/NVCS) from WA to next WAC meeting – JP, TI, PA
    i. Build a framework
    ii. Test drive sites in Washington

What data are we currently collecting beyond HEP surveys?

CTWSRO
a) Vegetative mapping (LIDAR)
b) Big game population counts (deer and elk primarily)
c) Bird counts (breeding bird survey), trends
d) Producing species lists/accounts (may not be tied to habitat, birds, mammals, reptile/amphibians, invertebrates, vegetation, etc.)
e) CREP Planting evaluations
f) Stream temperatures
g) Steelhead red counts
h) Hunter harvest surveys

BPT
a) Bird counts
b) Small mammal trapping
c) Radio telemetry
d) Step test (weeds, non-natives versus natives since 2007)
e) Forest inventory (effectiveness of controlled burns)
f) Photo points
g) Duck and dove banding
h) CREP planting evaluations (success rates)
i) Stream temperature monitoring
j) Rosgen stream survey
k) ODFW big game counts
l) Hunter harvest and access surveys
m) Rush skeleton weed surveys and control
n) Sage grouse lek surveys
o) Bat surveys

NPT
a) Micro-biotic crust cover
b) Down woody debris in riparian and conifer forests
c) Breeding bird point counts
d) Monitor pond amphibians
e) Small mammal trapping in different cover types
f) Fish species assessment
g) Butterfly inventory and partial beetle list
h) Extensive weed maps
i) Comprehensive plant list
j) ODFW fly over big game counts
k) Bat inventory

WDFW
a) Big game/small game surveys
b) Lek surveys
c) Restoration activity monitoring (effectiveness)
d) Breeding bird surveys
e) Grazing monitoring

f) Vegetation monitoring
g) Mapping activities (O&M, recreational, etc.) and priority species (distributions)
h) Waterfowl surveys
i) Hunter harvest surveys
j) Weed mapping
k) Ecological integrity monitoring (planned)
l) Maps of roads, fences, and other human impacts
m) Raptor productivity

CTUIR

a) Vegetation plots for cover and frequency
b) Waterfowl production surveys
c) Wet land bird surveys
d) Point counts for birds
e) Incidental bird check list
f) Long billed curlew surveys and mule deer
g) Monitoring vegetation planting success
h) Stream temperature
i) Red surveys and stream habitat surveys
j) Green line transects
k) Weed mapping and monitoring
l) Hunter harvest
m) Big game aerial surveys
n) Mapping of all infrastructure/GIS layers

KTOI

a) Species list, guilds, and ecological relationships of many species
    a. Breeding bird surveys
    b. Bank swallow surveys
    c. Raptor surveys
    d. Water fowl & shore bird surveys
    e. Insect surveys
b) Vegetation plots
c) Native and non-native species surveys
    a. Disturbance
    b. Riparian
    c. Hydrologic
d) GIS remote sensing (LIDAR, greenness, NAIP, NDVI)
e) Riparian plant recruitment
f) Hydraulic and hydrologic data and modeling

The WAC revisited the discussion on the types of monitoring described in the MERR:

Compliance Monitoring – HEP

Tables will be developed in Wildlife Crediting Forum that facilitates regional reporting for compliance monitoring of habitat acquisition strategy.

Status and Trend Monitoring – HLIs

1) WAC agreed to vegetation cover class system for rolling up data for biological objectives
2) Performance standards could be presented in this framework (by vegetation class). Some examples may include:
    a. Cumulative acres in protection by vegetation class
    b. Wildlife response by vegetation class (eg., HSI variable, etc.)
    c. KEFs, KECs, functional redundancy, etc.

   d. Total projects meeting ecological function/desired future condition by vegetation class
3) Faunal community status and trends will require additional monitoring although linkage between wildlife and vegetation classes can be inferred
4) Ecological function
   a. Connectivity
   b. Percent weeds
5) Council may expect a species response so the WAC may need to figure out how to address that.

Effectiveness Monitoring

1) Some effectiveness reporting will be reported within the vegetation class framework
2) Wildlife species response is difficult to roll-up and tie to individual actions
3) Numerous Status and Trend methods mentioned above can be utilized within this category.

The WAC discussed possible tools to measure ecological integrity. These need to match/work with the proposed NVCS framework.

IBI – Index of biological integrity
IBIS – ecological redundancy analysis, ecological correlates
WA Ecologic Integrity (Natureserve)
UWMEP

Possible criteria to be discussed at next WAC meeting for selecting an ecological function tool to adopt that could provide basinwide evaluation:

a) Applicability across the CRB
b) Tiered levels of resolution
c) Applicability to the NVCS scheme
d) Robust to variable levels/quality of data
e) Vetted in scientific community
f) Level of familiarity in basin (vested interests)
g) Should provide for a gradient of function, not simply a trend
h) Capacity to adapt
i) Level of support and longevity
j) User friendliness, skill requirement for processing
k) Accommodate remote sensing data
l) Feasibility of large scale application
m) Cost effectiveness

ACTION: Scott Soults (and possibly Tom O'Neil) will coordinate an effort to breakout HSI variables by individual hydro projects to evaluate a crosswalk between vegetation classes and species.

HSI variables that are linked to wildlife species

- Breakout HSI variables (individual metrics) by Hydro project
- Construct matrix and/or correlate HSI variables that may be used in ecological services
- Construct matrix and/or correlate HSI variables with cover types and overlapping vegetation classes

Tom was asked to develop the following evaluation matrix for the ecological integrity tools for discussion at the next WAC meeting (See Table 2).

Table 2. Evaluation matrix for ecological integrity tools.

	IBI – Index of biological integrity	IBIS – ecological redundancy analysis, ecological correlates	WA Ecologic Integrity (Natureserve)	UWMEP	others?
a) Applicability across the CRB					
b) Tiered levels of resolution					
c) Applicability to the NVCS scheme					
d) Robust to variable levels/quality of data					
e) Vetted in scientific community					
f) Level of familiarity in basin (vested interests)					
g) Should provide for a gradient of function, not simply a trend					
h) Capacity to adapt					
i) Level of support and longevity					
j) User friendliness, skill requirement for processing					
k) Accommodate remote sensing data					
l) Feasibility of large scale application					
m) Cost effectiveness					

ITEM 7: **Next WAC Meeting**

SUMMARY of ACTIONS:

1) David will bring information and personnel to discuss the connection between wildlife management plan templates and NEPA reviews.
2) WAC members will review and comment on the Vegetation Classification System evaluation in Agenda Item 6 (included in these notes). This will be updated at the next WAC meeting.
3) Build example framework based on NVCS for roll-up (Tom Iverson)
4) Compare the NVCS framework with actual HEP evaluations for a few properties in WA to test drive the framework (John Pierce).
5) Breakout HSI variables by individual hydro projects to evaluate a crosswalk between vegetation classes and species (Scott Soults)
6) Develop an evaluation matrix for possible ecological integrity tools for consideration at the next WAC meeting.

ACTION: The next WAC meeting will occur at the UCUT offices in Spokane, Washington on August 18 from 9 am to 5 pm, to coincide with the Northwest Power and Conservation Council meeting. The meeting will focus on reviewing the products initiated during this workshop.