

OREGON SPECIFIC GUIDANCE

Prepared by Oregon Subbasin Planning Coordination Group

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Readers please note that this document is a revision to the October 2, 2002 *Oregon Specific Guidance* document. Additional revisions may occur as the subbasin planning process evolves.

Updates will be distributed to subbasin planners and posted at:

www.subbasins.org/or/OregonGuidance.htm

Table of Contents

I. BACKGROUND	2
A. INTRODUCTION	2
B. GOALS FOR SUBBASIN PLANS	3
C. RELATED MANDATES AND PROCESSES	3
ESA Biological Opinion and Recovery Planning.....	4
Relationship to Clean Water Act and SB 1010 Requirements.....	4
Relationship to Tribal Trust and Treaty-Based Responsibilities	5
Relationship to Federal Land Management Planning.....	6
Relationship to State Planning.....	6
D. ROLES AND RESPONSIBILITIES	7
Bonneville Power Administration (BPA).....	7
Northwest Power Planning Council (Council)	7
Fish and Wildlife Agencies	7
Other Federal Agencies	8
Regional (Level 3) Coordination Group	8
Oregon Subbasin Planning (Level 2) Coordination Group (OCG) and TOAST.....	8
Project Manager	8
Lead Entities	9
E. SUBBASIN PLAN CONTENTS	9
F. SCHEDULE FOR SUBBASIN PLANNING.....	9
II. PROCESS GUIDANCE	11
A. APPLYING FOR FUNDING/CONTRACTING.....	11
B. DEVELOPING THE SCOPE OF WORK FOR THE CONTRACT.....	11
C. CRITERIA AND PROCESS FOR DESIGNATION OF LEAD ENTITIES	12
D. BI-STATE, MULT-STATE AND MAIN-STEM SUBBASIN PLANNING	14
Bi-State and Multi-State Planning	14
Mainstem Planning	15
E. SELECTION OF SUB-CONTRACTORS BY LEAD ENTITIES	15
BPA’s Funding Principles	15

Demonstrating Compliance with the Principles	15
Giving Notice to the Council of Subcontracts	15
Recommended Procedure for a Standard Contracting Process	16
Recommended Procedure for Sole Source Contracting	16
F. GUIDANCE FOR STAKEHOLDER INVOLVEMENT.....	16
G. AMENDING A CONTRACT SCHEDULE AND BUDGET.....	18
H. REVIEW AND ADOPTION PROCESS.....	18
OCG Review Process	18
Council Review and Adoption Process	18
ISRP Review Process	19
I. INVOICING PROCEDURES	19
Invoices	19
Progress Reports	20
III. ASSISTANCE FOR SUBBASIN PLANNING.....	21
A. NOAA FISHERIES ASSISTANCE.....	21
B. COUNCIL ASSISTANCE.....	22
C. OREGON COORDINATING GROUP AND TOAST ASSISTANCE.....	22
Introduction.....	22
Toast Liason.....	24
Processing Requests for Technical Assistance through TOG/TOAST	24
D. OWEB ASSISTANCE.....	24
E. FINANCIAL ASSISTANCE.....	24
IV. GUIDANCE ON PREPARING SUBBASIN PLANS.....	26
A. PREPARING THE WILDLIFE ASSESSMENT	26
B. PREPARING THE AQUATIC ASSESSMENT AND GENERAL INTEGRATION OF THE ENTIRE PLAN	26
V. CONTACT INFORMATION	38
APPENDICES.....	39
APPENDIX A SELECTED RESOURCES	39
APPENDIX B OTHER GUIDANCES	40
APPENDIX C OUTLINE FOR OREGON SUBBASIN PLAN Revised 4/16/2003.....	44
APPENDIX D SAMPLE TASK SEQUENCE FOR EDT MODEL DEVELOPMENT AND USE.....	49

APPENDIX E OREGON TECHNICAL GUIDE FOR DEVELOPING WILDLIFE
ELEMENTS OF A SUBBASIN PLAN 52

APPENDIX F WILLAMETTE/LOWER COLUMBIA ESA EXECUTIVE COMMITTEE
QUESTIONS REGARDING SUFFICIENCY GUIDELINES FOR RECOVERY PLANS
2/28/2003 DRAFT 66

GLOSSARY

Council	Northwest Power Planning Council
EDT	Ecosystem Diagnostics Tool
ESA	Endangered Species Act
OCG	Oregon Coordinating Group
NOAA Fisheries	Formerly known as NFMS, National Marine Fisheries Service
TOAST	OCG's Technical Outreach and Assistance Team
TOG	TOAST Oversight Group
TRT	Technical Recovery Teams

REVISIONS TO OCTOBER 2, 2002 DOCUMENT

This revision updates an October 2, 2002 edition of *Oregon Specific Guidance* prepared by the Oregon Subbasin Planning Coordination Group. Key revisions include:

- A revised outline for subbasin plans (Appendix C)
- Inclusion of procedures for invoicing
- Inclusion of procedures for sole-source contracting
- List of other guidances for preparation of subbasin plans (Appendix B)

I. BACKGROUND

A. INTRODUCTION

The purpose of this document is to provide guidance on the process for preparing subbasin plans. It is intended to augment the guidance on subbasin plan contents provided in the *Technical Guide for Subbasin Planner* (available at www.nwcouncil.org/library/2001/2001-20.pdf). As with the technical guidelines, this guidance is not mandatory; it has been prepared by the Oregon Coordinating Group (OCG) to assist planners and other stakeholders in developing subbasin plans that meet Northwest Power Planning Council (Council) standards and expectations for the subbasin planning process as well as maintaining consistency with agency/tribal policies and programs in Oregon. In addition to the above two principal guidances on subbasin planning, a number of other guidances have been developed. Many are referenced directly in this document. Appendix E contains a complete list of these guidances, updated to the date of this revision.

The first set of subbasin plans, completed in 1991 for the anadromous fish bearing subbasins, was a common effort of the tribal, state, and federal fishery managers to implement *U.S. v Oregon* court-ordered management agreements at the subbasin level. They attempted to quantify the amount of change from historic conditions and the amount of restoration that would occur as a result actions proposed in those plans. The amount and type of information and the resources available for the planning process limited the analyses.

The second set of subbasin plans (*Wy-Kan-Ush-Mi Wa-Kish-Wit*, Spirit of the Salmon), updated from 1990 by the member tribes of the Columbia River Inter-Tribal Fish Commission, was completed in 1995 and extended the quantification of the original plans. Life stage survival estimates were included for some runs and changes from historic conditions were allocated among habitat, hydropower, and harvest impacts. In addition, specific monitoring proposals were identified to track improvements resulting from plan implementation.

Now we are embarked upon a third iteration of subbasin planning. It began with development of Subbasin Summaries as part of the Council's rolling Provincial Review of projects under its Fish and Wildlife Program. This round of planning will conclude with the development of subbasin, provincial and regional plans (the last two based upon the individual subbasin plans). When completed, the Council intends to adopt these plans into the Fish and Wildlife Program. As plans are developed they will be evaluated for consistency with the Endangered Species Act, the Clean Water Act, federal treaty and trust responsibilities to the basin's Native American Tribes, and the general provisions of the Council's 2000 Fish and Wildlife Program.

The success of this effort will depend in large part upon how well the new subbasin plans build from and extend the quantification of earlier plans, their ability to integrate the various land and water management plans affecting the subbasin, and on the funding provided for their implementation.

B. GOALS FOR SUBBASIN PLANS

Subbasin plans will be reviewed and adopted as part of the Council's Fish and Wildlife Program and will help direct Bonneville Power Administration funding of projects that protect, mitigate and enhance fish and wildlife that have been adversely impacted by the Columbia River hydropower system. The Council, Bonneville, NOAA Fisheries, and the U.S. Fish & Wildlife Service (USFWS) intend to use adopted subbasin plans to help meet requirements of the 2000 Federal Columbia River Power System Biological Opinion. NOAA Fisheries and USFWS intend to use subbasin plans as building blocks for recovery planning for threatened and endangered species. The fundamental goal is a scientifically-based strategic plan that:

- ❑ Identifies measurable objectives: What are the ideal fish, wildlife and habitat outcomes?
- ❑ Defines the problems or factors for decline: What is constraining the ability to meet objectives and what is their relative importance/effects?
- ❑ Prioritizes solutions: What strategies and actions are necessary to solve significant problems preventing the meeting of objectives?

Subbasin plans are to be developed locally and in collaboration with fish and wildlife managers, federal land managers, local governments, interest groups and stakeholders. Final subbasin plans should enjoy a wide range of support from all interested parties.

Detailed guidance on the content and structure of subbasin plans is provided in the *Technical Guide for Subbasin Planners*. In brief, a subbasin plan should (a) assess conditions for fish and wildlife based to the maximum extent possible on available data, (b) identify the factors leading to the decline, and (c) define protection and restoration actions that address the factors of decline. In some subbasins, available information may be inadequate to justify actions. In some subbasins, available information may be inadequate to justify actions. In these cases, work plans may include additional research to fill critical data gaps. On the whole, however, subbasin work plans should minimize new data gathering work.

The development of subbasin plans is intended to be an iterative process, with plans updated on a regular basis to reflect changing conditions, new data, completion of restoration and enhancement projects, and subsequent adaptations to management strategies. If more detail is needed to design recovery strategies, the collection and analysis of that information should be an implementation step in the recovery strategy.

C. RELATED MANDATES AND PROCESSES

Maintaining consistency with and integrating federal and state agency and tribal policies and programs in Oregon is a key goal in subbasin planning. It is OCG's intent that subbasin plans, to the extent possible, meet the mandates and processes summarized below. Additional policy direction that should be integrated into subbasin planning is contained in the resources cited in Appendix A. By integrating these related mandates and processes, subbasin plans provide an opportunity to clarify and advance mutually-shared goals, to increase efficiency and accountability, and to leverage funds.

ESA Biological Opinion and Recovery Planning

The Council, Bonneville, National Marine Fisheries Service (NOAA Fisheries), U.S. Fish & Wildlife Service (USFWS), U.S. Army Corps of Engineers, and Bureau of Reclamation intend to use adopted subbasin plans to help meet requirements of the 2000 Federal Columbia River Power System Biological Opinion and to address tribal trust and treaty obligations. NOAA Fisheries and USFWS intend to use subbasin plans as building blocks for recovery planning for threatened and endangered species. NOAA Fisheries hopes to use subbasin plans as “the local recovery plan chapters in an ESU-wide recovery plan”.

The relationship between subbasin planning and ESA recovery planning is described in a letter from Robert Lohn, NOAA Fisheries regional Director, to Larry Cassidy, Council Chair, dated May 24, 2002 (available at www.subbasins.org/admin/esa/esaletter.htm). This letter also includes an attachment entitled *NMFS Local Recovery Plan Guidelines* (accessible at www.subbasins.org/admin/esa/recoveryplanguidelines.htm). These guidelines provide subbasin planners with initial guidance on what elements subbasin plans need to contain to be adopted by NOAA Fisheries as part of a recovery plan. These guidelines are organized according to the outline of the Council’s *Technical Guide for Subbasin Planners*. Instances where the NOAA Fisheries guidelines may go further due to statutory obligations under the ESA or where additional explanation is warranted are noted in the guidelines.

NOAA Fisheries has developed guidance on how recovery plans will be evaluated and the "sufficiency standards" that will be used in that evaluation. While this guidance was initiated at the request of the Willamette/Lower Columbia ESA Executive Committee (the policy coordinating group for ESA recovery planning in the Willamette/Lower Columbia domain), it will be relevant throughout the region. The latest version of this guidance is attached in Appendix F.

Relationship to Clean Water Act and SB 1010 Requirements

In many subbasins, a significant amount of groundwork for subbasin planning has already been laid through the development of Agricultural Water Quality Management Area Plans (AWQMAPs, developed in accordance with SB 1010) and Water Quality Management Plans (WQMPs, developed as part of the Total Maximum Daily Load (TMDL) process). Subbasin plans should incorporate rather than duplicate these efforts by referencing the "prohibited conditions" established in the AWQMAPs and the management recommendations in the WQMPs. These plans are locally developed and should be compatible with the goals of subbasin planning.

In addition, certain elements of these plans may be useful tools in the subbasin planning process. For example, TMDL documents include quantitative goals such as percent reduction in erosion or effective riparian shade that can be used as restoration targets. The TMDL will also include an evaluation of existing and potential riparian condition that can guide decisions on where

investments should be made. Cost and funding, and maintenance of effort over time are addressed in TMDL implementation plans. In addition, these plans usually describe where efforts should be focused (e.g., a particular stream or stream segment) and what types of efforts should be taken to achieve the greatest water quality improvements.

Relationship to Tribal Trust and Treaty-Based Responsibilities

Columbia River Basin tribes are integral and critical participants in subbasin planning. Tribes will participate on planning teams as appropriate and as time permits. In subbasins where they are not taking a lead role, it is essential that subbasin planners maintain a continuous feedback loop to be sure that the elements of the plan are reviewed by interested tribes as they are developed. As with other resource agencies, the tribes have limited technical staff that can participate in the subbasin planning process, so it is essential to engage them at the earliest possible time and to obtain as much involvement as they are able to provide.

The following text was prepared by the Columbia River Intertribal Fish Commission (CRITFC) and represents its view of the relation of subbasin planning to meet treaty obligations.

In treaties signed with the United States in 1855, Native American tribes reserved the right to fish and harvest game, berries, roots, and associated plants and animals necessary to maintain their culture and religion. Maintenance of these diverse resources requires healthy, interconnected, naturally functioning ecosystems. This means that, for anadromous fish, subbasin goals must be set within the life cycle and ecosystems which sustain these fish as they migrate thousands of miles from their home streams through the mainstem Snake and Columbia rivers, coastal waters, the Gulf of Alaska, and back again to home streams. Among other provisions, the tribes reserved the right to fish at all usual and accustomed fishing grounds and stations. This means there must be harvestable numbers of fish returning to those locations to sustain fisheries. This criterion sets a much higher standard than simply delisting populations under the ESA. For instance, the numbers of salmon needed to meet interim delisting criteria are but a small portion of the numbers called for in tribal and interim Council goals (5 million salmon above Bonneville Dam within 25 years).

To judge the degree of consistency with tribal treaty rights, the following questions have been developed by CRITFC. These questions are intended to respond to the tribes' overarching issue: *Are the subbasin plans consistent with rights reserved by the tribes and guaranteed by the treaties of 1855?* Please note that nothing in these criteria is intended to limit the rights, responsibilities, or actions of the other Native American tribes of the Columbia Basin. It should also be noted that many of the issues listed below are not unique to the tribes and would need to be analyzed in order to meet non-tribal legal obligations.

1. Does the plan encompass the entire life cycle of the focal species (gravel-to-gravel management for anadromous fish)?
2. Does the plan encompass the important ecological features and functions that sustain the focal species in each of their life stages?
3. Have the production and harvest agreements of the *U.S. v Oregon* management plan been incorporated into the subbasin plan, as appropriate?
4. How many adult individuals of each species/race/population are desired to return to or reside within the subbasin?
5. How large is the desired harvest of each species/race/population?
6. What production methods (e.g. natural, hatchery, or a specified mix) are proposed to reach the above goals/objectives?
7. When does the plan anticipate reaching its above goals/objectives?
8. Are the subbasin goals consistent with stated tribal and regional goals?

If the plans clearly address the above questions and use a common format for stating goals and objectives, their consistency with treaty rights can be evaluated and subbasin goals can be aggregated into provincial, ESU, and regional goals in a consistent manner.

Relationship to Federal Land Management Planning

The involvement of the Federal land management agencies, predominantly the USDA Forest Service and the USDI Bureau of Land Management, is critical for ensuring a successful planning effort. In many cases, these agencies have the responsibility for managing a majority of the land in the subbasin. Their involvement will help ensure that plans have shared, consistent strategies and priorities and increase the opportunities for leveraging funds. In addition, these agencies often have more data and analysis and resource planning experience than other entities. Through the science assessment data and management direction in the Final Environmental Impact Statement for the Interior Columbia Basin Ecosystem Management Project, the Forest Service, BLM and other agencies prioritized restoration activities based on terrestrial, aquatic and socioeconomic factors. Subbasin plans should recognize these regional priorities.

To ensure that subbasin plans reflect federal land management plans and objectives, at a minimum subbasin plans will need to address:

- ❑ Land management plans for National Forest Service and Department of Interior lands within the subbasin;
- ❑ Northwest Forest Plan, including strategies for managing Key Watersheds and Riparian Reserves; and
- ❑ Interior Columbia Basin Ecosystem Management Project Science Assessment data.

Relationship to State Planning

Among the other planning processes that need to be considered in preparing subbasin plans are the *US v. Oregon* process, the Oregon Plan for Salmon and Watersheds, local land use plans, Oregon Department of Fish and Wildlife's basin management plans and a variety of fish management rules, and the emerging Native Fish Conservation Policy. Local watershed councils have developed watershed assessments and restoration action plans under the guidance of the Oregon Watershed Enhancement Board (OWEB). These assessments and action plans provide an important source of information and community-based prioritization useful in the preparation of subbasin plans.

To address these other planning processes, subbasin plans should support watershed-level habitat restoration planning, identify fish and wildlife production and environmental goals usable at a basin scale, and support integrated monitoring of environmental conditions and fish and wildlife population status and trends.

For native fish species in Oregon, subbasin plans will provide a basis for conservation planning as described in the Native Fish Conservation Policy (NFCP). Specifically, subbasin plans will contribute, for the species management units defined under the NFCP, descriptions of desired biological status, current status, factors causing gaps between current and desired status, short- and long-term management strategies, and monitoring and evaluation needs. For non-native

game fish species in Oregon, subbasin plans will provide a basis for updating existing basin fish management plans or developing new plans. For native and non-native wildlife species in Oregon, subbasin plans will provide a basis for updating statewide management plans.

D. ROLES AND RESPONSIBILITIES

Because there are multiple responsible and interested parties in each subbasin, it is important to be clear on what role each plays in the subbasin planning process. The following list is a guide to the major stakeholders and how they fit in the process.

Bonneville Power Administration (BPA)

BPA provides funding for the subbasin planning process in order to mitigate the impacts of the Columbia River hydropower system on fish and wildlife. A total of \$15.2 million has been allocated for subbasin planning in the region. The subbasin plans will help direct BPA funding of projects over the next 10 to 15 years.

Northwest Power Planning Council (Council)

The Council has the responsibility to develop and periodically revise the Fish and Wildlife Program for the Columbia Basin. In the 2000 revision, the Council proposed that 62 locally developed subbasin plans and plans for the main stem Columbia and Snake rivers be adopted into its Fish and Wildlife Program. The program has been organized into three levels:

1. Basin-wide level that articulates biological objectives, principles and coordination elements that apply to all fish and wildlife projects.
2. Ecological province level that addresses the 11 unique ecological areas of the Columbia Basin, each representing a particular type of terrain and biological community.
3. Subbasin level that addresses the biological objectives and strategies in 62 subbasins, each containing a specific waterway and the surrounding uplands and including the mainstem Columbia and Snake rivers.

The Council will administer subbasin planning contracts pursuant to requirements in its Master Contract with BPA (see www.subbasins.org/admin/mastercontracts.htm). It is responsible for review and adoption of each subbasin plan, ensuring that it is consistent with the vision, biological objectives and strategies adopted at the Columbia Basin and province levels.

Fish and Wildlife Agencies

The National Marine Fisheries Service (NOAA Fisheries), U.S. Fish & Wildlife Service, Oregon Department of Fish and Wildlife, Oregon Department of Environmental Quality, the Columbia River Intertribal Fish Commission, and other fish and wildlife agencies are expected to provide their technical data for the subbasin Assessment, help inventory existing projects and programs, provide peer review of planning products for scientific soundness and consistency with federal and state laws and policies, and participate in the development of the management plan. NOAA Fisheries is working with the OCG to ensure that subbasin planners are informed of all relevant

guidance and policy decisions that address ESA recovery planning and compliance issues as they relate to subbasin planning.

Other Federal Agencies

The involvement of the federal agencies is critical for ensuring a successful planning effort. Their participation includes providing technical support and data, providing information to insure subbasin plan compatibility with applicable land use management plans, and participating in planning efforts so that subbasin plans reflect the shared goals and priorities of multiple land and water management authorities. Participation by federal land management agencies, particularly the USDA Forest Service and the USDI Bureau of Land Management, is particularly important since they often manage large portions of subbasins. In some subbasins, participation by other federal agencies, such as the US Army Corps of Engineers, Bureau of Reclamation, Natural Resources Conservation Service and Farm Service Agency, may also be important.

Regional (Level 3) Coordination Group

The Regional Coordinating Group includes the regional (four-state) representatives of fish and wildlife agencies, tribes and other key stakeholders (e.g., Governors' offices). This group meets on an as-needed basis to resolve region-wide issues brought to it by statewide coordination groups.

Oregon Subbasin Planning (Level 2) Coordination Group (OCG) and TOAST

The Council has created a coordinating group to oversee the development of subbasin plans in each of the four states in the Columbia Basin. The Oregon Coordinating Group (OCG) is responsible for setting policy, scheduling and managing subbasin planning in all 18 subbasins in Oregon. Oregon Council members and representatives from state and federal agencies and the Tribes serve on the OCG. Specific responsibilities include selection of lead entities, review of proposed subbasin plan work scopes, review of draft subbasin plans, providing direction to the Project Manager, monitoring progress on subbasin plans, and recommending approval of contracts and adoption of subbasin plans to the Council.

The Technical Outreach and Assistance Team (TOAST) is the technical arm of the OCG. The overall goal of the TOAST is to help subbasin planners produce plans that provide a solid scientific basis for the Council to select and fund recovery projects and for NOAA Fisheries to develop local recovery plans. TOAST is comprised of two sub-groups. The TOAST Oversight Group (TOG) is composed of a representative from the Tribes and key state and federal resource agencies. The TOG proposes policy for the group, helps subbasin planners develop their scopes of work (work plans), and serves as liaison to each subbasin. The TOAST is composed of technical specialists who assist subbasin planners with technical issues.

Project Manager

A consulting team headed by Cogan Owens Cogan has been hired by the OCG to manage the day-to-day activities of subbasin planning in Oregon. The Project Management team is in regular

communication with the lead entity and/or the planning group in each subbasin, reporting on progress to the OCG and helping to answer questions and deal with issues as they arise. The Project Manager reviews work scopes and subbasin plans and manages all contracts.

Lead Entities

Lead entities are responsible for developing subbasin plans in accordance with Council-approved work scopes. Lead entities shall employ a highly-inclusive planning process, with broad-based stakeholder and public involvement. See Section II.C for details on lead entity responsibilities and the process and criteria for their selection.

E. SUBBASIN PLAN CONTENTS

Guidance on the contents of subbasin plans is provided in the *Technical Guide for Subbasin Planners*. It is expected that subbasin plans will be easily readable and readily understandable by all stakeholders and that they will not generally exceed 100 to 150 pages in length. The subbasin Assessment should be summarized in the plan and the detailed information supporting it attached as an appendix. Similarly, analytical modeling, supporting data, methodologies, and information sources should be included as appendices.

Because the *Technical Guide* does not provide a single outline for a plan, the TOAST has developed an outline for subbasin plans (Appendix B). Uniformity in plan outlines will greatly facilitate merging the plans at the Provincial and Basin levels.

The outline includes some items not included in the *Technical Guide* that the OCG requests be included in the plans. Oregon subbasin plans are required to use this outline for at least the first two levels (i.e., level 2.1, 4.1) for all sections except Section 3, which should include the first three levels (i.e., 3.1.1, 3.2.1, etc).

Other states will likely have slightly different standard outlines due to different state law requirements. Planners developing subbasin plans which include more than one state will need to develop outlines that merge the requirements of the subject states.

F. SCHEDULE FOR SUBBASIN PLANNING

The Council originally scheduled subbasin plans to be completed in stages. Due to a variety of factors, the Council has now set a final due date of May 28, 2004 for all plans to be submitted.

The OCG feels that a planning cycle of less than 18-months will be difficult to achieve in most subbasins. However, there have been so many delays in completing contracts and obtaining data that many subbasins are faced with shorter time periods. As of the date of this guidance, the Council has not changed the May 2004 due date for all plans, so subbasins will need to modify the schedule to fit the time and data available.

Subbasin planners are free to revise this schedule to fit their needs. Planning tasks do not need to proceed in a strict sequence. In fact, they should proceed in parallel to the maximum extent practicable. When to start work on the Management Plan is a key policy issue for each subbasin planning group to determine. Starting early, as shown in the diagram, allows more time for the stakeholders to review existing studies and discuss the important and potentially controversial policy issues involved in subbasin planning. Based on available information, the planning group could develop draft Vision and Goal statements and even develop draft Strategies before the Assessment is completed, all of which can be modified later.

II. PROCESS GUIDANCE

Note: As of the date of this revision to the Oregon Guidance, all subbasins in Oregon have completed the contracting process, so much of this section is mainly for reference.

A. APPLYING FOR FUNDING/CONTRACTING

Subbasin planning funding may be applied for by lead entities (see following section) by completing application forms available on the Council's Web site at <http://www.nwcouncil.org/> or by calling 503.222.5161 or 800.452.5161. Proposals will be reviewed by the Project Manager and Council staff to insure overall conformance with requirements.

Procedures for contracting for subbasin planning have been cooperatively developed by the Council and Bonneville and are available on the Council's Web site at http://www.nwppc.org/fw/subbasinplanning/admin/contract_procedures.

Procedures for invoicing and payment are also detailed at the Council's Web site. Note that payment is on a deliverable basis. Also note that expenditures incurred prior to contract signing can be invoiced when it can be demonstrated that the work was directly related to subbasin planning.

B. DEVELOPING THE SCOPE OF WORK FOR THE CONTRACT

The Scope of Work should generally follow the Outline included in Appendix B and the description of tasks in Section III of this Guidance. As noted in Section III, the TOG will work with the subbasin planners in developing the scope for the Subbasin Assessment, and will discuss what work the subbasin planners can assume will be done by the TOAST and what will need to be done by the subbasin planning team itself. In the early stages of subbasin planning, this division of work will not be well defined, so the TOG and the subbasin team will need to discuss expectations carefully to avoid misunderstandings.

The scope of work should define clearly the deliverables at each step of the project. Draft plan sections should be submitted to the Oregon Coordination Group for informal review prior to finalizing the entire plan. The OCG commits to providing this informal review within two weeks of receiving the drafts.

Further guidance on developing a work plan follows:

1. Work plans should specifically indicate that the planning process will follow the tasks outlined in the *Technical Guide for Subbasin Planners* and in the *Oregon Specific Guidance*. It should include a statement identifying the lead entity, setting out the entity's qualifications to conduct subbasin planning in the subbasin, including an assertion of the support of relevant fish managers and tribal interests. Also, a short statement of how the lead entity was

chosen, if applicable, and, if the lead entity requires a fiscal agent for contracting purposes, a short statement of how the fiscal agent was chosen explaining the relationship of the fiscal agent to the lead entity.

2. A *very* short account of other planning efforts going on in the subbasin and of how the lead entity intends to integrate subbasin planning with other planning initiatives, such as recovery planning.
3. Detail on the organizational structure is needed, including composition of the Planning Team, Technical Team, and any advisory groups. Identify individuals where possible. The work plan needs to clearly describe where Tribes, federal land management agencies, state agencies, local governments and environmental groups will be involved. A description of the organizational structure the lead entity will assemble. A diagram would be useful here.
4. In subbasins where listed salmon and steelhead are present, the “Purpose” section should include a statement that the subbasin plan is intended to serve as a building block of an ESA recovery plan. NMFS Local Recovery Plan Guidelines should be cited as the framework for what is needed for a subbasin plan to meet recovery plan needs. For ESA purposes, there needs to be an evaluation of the ability of existing programs to achieve recovery goals (NOAA Fisheries will be developing additional guidance on what this means).
5. If it is the intent to submit the subbasin plan to OWEB for adoption as the goals and priorities for watershed restoration under the state watershed council program, such a statement should be included in the "Purpose" section.
6. For the Assessment task, details are needed on the modeling/assessment methods to be used.
7. Work plans should describe proposed progress reporting procedures.
8. Work plans should reflect submittal for review at 50% or 75% completion.
9. Time and monies should be reserved for post-submittal presentations to the Independent Scientific Review Panel and to Council if requested and for undertaking any requested amendments and re-submittals.
10. The work plan should include a project budget in a form that will be acceptable to Bonneville that includes the assessment, inventory and management plan. See the template on the subbasin web page.
11. It should include a table of deliverables and schedule.

C. CRITERIA AND PROCESS FOR DESIGNATION OF LEAD ENTITIES

The Council intends that subbasin plans be developed collaboratively by citizens, tribes, and agencies in each subbasin. To facilitate plan development, the Council desires to contract with a single organization or individual in each subbasin to serve as a lead entity (or fiscal agent)for

subbasin planning. In the case of a bi-state or multi-state basin, multiple lead entities may be appropriate.

Please note that the entity to be contracted with may be titled lead entity, fiscal agent or other appropriate term; the intent is to designate a single entity for contracting purposes.

Lead entity responsibilities include:

- ❑ Contracting with the Council for delivery of subbasin plans, including managing subcontracts with other organizations and individuals to prepare the plans or elements thereof;
- ❑ Ensuring the opportunity for participation in subbasin plan development by fish and wildlife managers, local interests and other key stakeholders, including tribal and local governments;
- ❑ Coordinating with the Oregon Subbasin Planning Coordination Group and the Oregon Subbasin Planning Project manager, as necessary;
- ❑ Providing progress reports pursuant to Council progress reporting requirements;
- ❑ Providing a draft subbasin plan for OCG review; and
- ❑ Submitting completed subbasin plans for Council review and approval.

The lead entity may take on coordination, technical writing and support functions, or may subcontract for these or other functions. If a lead entity is unable to undertake a subcontracting relationship, the Council may consider contracting directly with other entities, providing their particular tasks and budgets conform to a statement of work for the subbasin submitted by the lead entity and approved by the Council.

Lead entities will be designated by the Oregon Subbasin Planning Coordination Group. Criteria for designation as a lead entity are:

- ❑ The entity has demonstrated support by local entities within the given subbasin, including support by the state and tribal fish and wildlife managers for that subbasin;
- ❑ The entity is an organization or individual with legal authority to contract with the Council;
- ❑ The entity has the organizational structure necessary for performing project management and contract administration functions;
- ❑ The entity has demonstrated the intent and capability to submit a complete subbasin plan;
- ❑ The entity can ensure that planning decisions relating to project approach, scope of tasks and budget will represent the interests of local participants.

With respect to the first criterion, the Council has identified key stakeholders that should be involved in subbasin planning to include fish and wildlife managers, local governments, local interest groups and stakeholders and other state and federal land and water resources managers. Successful completion and implementation of subbasin plans require continuous involvement of key stakeholders from the beginning. Therefore, it is very important for the lead entity to obtain agreement from key stakeholders on its designation and role as lead entity. Ideally, the lead entity will develop a memorandum of understanding or other written agreement with key

stakeholders or letters supporting its designation as lead entity and their commitment to participation in the planning process.

In cases where agreement on a lead entity among key fish and wildlife managers and other local stakeholders cannot be obtained, the Oregon Subbasin Planning Coordination Group may apply the following additional criteria to select a lead agency:

- ❑ It has demonstrated familiarity with the various existing state, tribal and federal recovery plans applicable to their particular subbasin, including, but not limited to, the Oregon Plan for Salmon and Watersheds and Wy-Kan-Ush-Mi Wa-Kish-Wit;
- ❑ It has identified protocols and guidelines for subbasin planning groups that promote the meaningful involvement of group members in developing the content of the plan;
- ❑ It has the ability to conduct meaningful public involvement and outreach activities; and
- ❑ It has utilized or demonstrated familiarity with Ecosystem Diagnosis and Treatment (EDT) or other watershed assessment/analysis tools.

An entity wishing to be designated as Lead Entity should send a letter requesting such and demonstrating satisfaction of designation criteria (including any MOUs or support letters) to the Oregon Coordinating Group.

D. BI-STATE, MULT-STATE AND MAIN-STEM SUBBASIN PLANNING

Bi-State and Multi-State Planning

Several “Oregon” subbasins also include lands within Washington, Idaho or both states. The Council has determined it will only review one subbasin plan per subbasin, so the states involved with cross-state subbasins will need to work out a method to produce a single, unified subbasin plan.

The states have several options for producing a unified plan: (a) the states may designate a single lead entity to prepare a single subbasin plan. (b) the states may create a new bi-state entity to lead the planning effort. (c) the states may designate separate lead entities, each with its separate work plan. Where the latter occurs, the following conditions apply:

- ❑ Work plans and budgets must be demonstrably integrated to show delivery of a single subbasin plan, including coordinated mechanisms for public involvement.
- ❑ Work plans and budgets must be accompanied by a letter of support from the other state(s).
- ❑ Joint approval by the respective state coordinating groups will be required before contracting can be initiated.
- ❑ A single, coordinated subbasin plan must be jointly submitted by the lead entities to the Council.
- ❑ Each state coordinating group must recommend approval of the plan before Council will consider initiation of the appropriate program amendments.
- ❑ Equitable distribution of funding is expected. It will be a local decision to determine what is equitable.

Mainstem Planning

Subbasin plans are also required for mainstem reaches of both the Columbia and Snake Rivers. Mainstem reaches will typically be comprised of the mouths of tributaries, small tributaries to the mainstem, and habitat along the mainstem and the tributaries (legal descriptions for these reaches can be found at the Web site of the Council's Fish and Wildlife Program). The Oregon Coordinating Group and Council staff has prepared guidance on mainstem planning, which is available at <http://www.nwppc.org/fw/subbasinplanning/admin/level2/or/mainstem.htm>.

E. SELECTION OF SUB-CONTRACTORS BY LEAD ENTITIES

Many of the lead entities/fiscal agents or coordinating groups for the subbasin planning process will be contracting out large portions of the work. In some subbasins, local, state or federal agencies or Tribes will carry out portions of the work.

BPA's Funding Principles

The funding principles in the Council's contract with BPA

<http://www.nwcouncil.org/fw/subbasinplanning/admin/fundingprinciples.htm> provide:

“contractors, to the extent able, are responsible to obtain the most advantageous price available, for materials, subcontracts and travel with due regard to securing prompt delivery of satisfactory products and services.” More specifically, as the principal contractor for subbasin planning, the Council expects subbasin lead entities to be able to demonstrate and document that open competitive procurement practices were followed in selecting and awarding subcontracts. For further information on the principles or contracting procedures, contact: Bill Hannaford at the Council, 503-222-5161, bhannaford@nwppc.org. Information is also available at: <http://www.nwppc.org/fw/subbasinplanning/admin/guides/competitiveacq.htm>

Demonstrating Compliance with the Principles

Demonstrating that open and competitive procurement practices have been employed could be accomplished in several ways. A lead entity (or other contractor) could, for example: document how it utilized its own competitive contracting requirements; solicit letters of interest and request for qualifications from potential contractors; conduct a formal RFP process; or provide a thorough sole source justification statement in those instances in which a competitive procurement process is not possible.

Giving Notice to the Council of Subcontracts

A brief account demonstrating that contracts have been awarded based on the principles above should be sent to the entity with whom the contracting party has a contract, with a copy to the Council's subbasin planning coordinator for inclusion in the Council's files. So, for example, a lead entity would notify the Council when it awards a subcontract. If the subcontractor lets sub-subcontracts, the subcontractor would notify the lead entity, with a copy to the Council.

Recommended Procedure for a Standard Contracting Process

Given the time and money constraints of the subbasin planning process, most lead entities/fiscal agents will probably want to do a one-step contractor selection process. There are two standard options for doing this, which are described below. In unusual cases, it may be desirable to do a two-step process, beginning with a Statement of Qualifications (SOQ) and then moving to a Request for Proposals (RFP). In both processes, the contracting entity should establish clear criteria for selection of the contractor and document its reasoning for the selection.

1. Request for Qualifications

An RFQ process asks potential bidders to submit their qualifications for the work. Qualifications usually consist of resumes of key personnel, history and examples of similar work, compensation rates (hourly or daily) and a statement of interest and ability to carry out the work. This type of application is most suitable when the actual scope of work and/or budget is not yet decided.

An announcement of the RFQ process should include a brief statement of the work expected of the successful applicant. Entities can directly invite suitable candidates to submit qualifications or advertise for potential contractors through classified ads, web postings or getting agency bidder lists. Once the contractor is selected, the detailed budget, schedule and scope of work are negotiated.

2. Request for Proposal

An RFP process asks for the same information as the SOQ, but adds three additional items: a proposed scope of work, schedule, and budget for the work. In this process, the contracting organization has to provide the applicants fairly detailed information on the work required. The marketing of an RFP announcement can be handled as stated above.

Recommended Procedure for Sole Source Contracting

There are cases where a sole source contract is advantageous to plan preparation. If the lead entity judges that this is the case, it must prepare a letter indicating why selection on a sole source basis is to the government's advantage based on price, unique knowledge of the subcontractor, ability to mobilize quickly to meet the timeline, location of staff close to the subbasin, and the like. Examples of sole source letters that have satisfied the principles can be obtained from the Project Managers. Guidance from the Council is contained at: <http://www.nwcouncil.org/fw/subbasinplanning/admin/guides/competitiveacq.htm>

F. GUIDANCE FOR STAKEHOLDER INVOLVEMENT

The Power Act of 1980 that created the Northwest Power Planning Council directs it to ensure widespread public involvement in the formulation of regional policies. OCG believes that subbasin plans should involve interested parties as much as possible in the actual development of the plan, so that it embodies, as far as possible, the knowledge, interests and support of the people in the subbasin. However, each subbasin has different parties with varying degrees of

responsibility, jurisdiction and interests. Consequently, the public involvement process will vary in each subbasin. At a minimum, fish and wildlife agencies, tribes, local governments and other agencies with programs that affect fish and wildlife in the basin are expected to be invited to participate substantively in the planning process—providing technical and process expertise where needed.

To ensure a broad-based public involvement process at the local level, the OCG offers the following public involvement principles:

- ❑ The earlier stakeholders are involved in the planning process, the more likely they are to buy-into the final plan.
- ❑ A public involvement process should be clearly described in each subbasin work plan.
- ❑ The public involvement process should include milestones during the planning process where stakeholders respond to portions of the plan and new information can be incorporated.
- ❑ All formal planning meetings should have a public comment period.
- ❑ All stakeholders should be treated with respect and courtesy.

Typically, there will be at least three major points for public involvement: (1) at the beginning of the planning process in a “scoping” or kick-off event that announces the process and solicits comments; (2) while or after the draft Vision/Objectives are developed; and (3) after a Draft Plan has been prepared. An example public process follows. Ultimately, it is up to the lead entity or coordinating body in each subbasin to design the appropriate public involvement process.

1. *Create a planning group with representatives of the agencies, tribes, local government and other key stakeholders.*

Representatives of each group are responsible for getting information constituents from the planning group to their members and carrying feedback on issues back to the planning group. The structure of the group may vary. Some may wish to be governed by a signed MOU while others simply agree to collaborate on the development of the plan. Regardless of the structure, the planning group should establish ground rules for how meetings will be conducted.

2. *Conduct a public kick-off/outreach event that announces the planning effort and solicits comments, concerns, etc.*

The event could be a well-publicized open house, a public meeting or any format that reaches out to potential interested parties and gives them a chance to express their interests or concerns. The planning group must decide how to include in the planning process the new stakeholders and input they receive. The kick-off/outreach event may also allay fears by some that the planning process is being conducted behind closed doors.

3. *Solicit comments on draft Vision and Objectives.*

Upon completion of a draft Vision and Objectives, outreach should be initiated to agencies, tribes, landowners, local government, watershed councils and other stakeholders to seek input. A combination of focus groups, public meetings, open houses, etc. could be used to solicit input.

4. *Solicit comments on draft Management Plan.*

Input on the draft Management Plan could be sought from the same stakeholders who commented on the Vision and Objectives, plus a larger public constituency. Since the Management Plan is the cornerstone of the subbasin plan, this step is critical regardless of how each subbasin designs its public involvement process. If this is the first public involvement on the plan, the review process will likely be more extensive and require more plan revisions.

G. AMENDING A CONTRACT SCHEDULE AND BUDGET

Any requests for amendments to the schedule or budget need to be requested by a Lead Entity in writing. The Project Manager will review the request and make a recommendation, which will be forwarded (along with the request) to the OCG and Council staff.

Minor shifts within a budget will not require approval by BPA. The Council needs to be notified of shifts within budget categories and will handle these changes within their own accounting system and with BPA, as needed. A change to the overall schedule or cost of a project, however, is a major change, and would require a contract amendment.

H. REVIEW AND ADOPTION PROCESS

OCG Review Process

Subbasin plans will be reviewed by the Project Manager and OGC for compliance with contracts (work scopes), technical sufficiency, and conformance to guidance in this document and in the *Technical Guide for Subbasin Planners*. Based upon its review, the OCG will either recommend approval by the Council or return of the subbasin plan to the lead entity for additional work.

The OCG recommends strongly that draft plan sections be submitted to it for informal review prior to finalizing the entire subbasin plan. Review at a 50% or 75% completion level will provide for any needed mid-course corrections prior to the full expenditure of subbasin planning funds and completion of the local adoption process. The OCG intends to provide this informal review within 2-3 weeks of receiving draft sections.

At the time of this writing, the OCG has not decided how it will review final plans when they are submitted at the end of May 2004. Further guidance on this will be issued later.

Council Review and Adoption Process

Following receipt of a subbasin plan, the Council will initiate an extensive public review and adoption process, which ultimately will lead to amending its Fish and Wildlife Program. The public review process includes public hearings in all four states and consultations with interested parties. After a review and deliberation period, the Council will adopt the revised program within one year of the deadline for receiving recommendations for amendments. Three separate but simultaneous reviews are conducted: Council, public, and scientific. This review process is detailed at www.subbasins.org/admin/recommendations.htm.

ISRP Review Process

The Independent Scientific Advisory Board (ISAB) is an advisor to the Council and will review all plans prior to Council action on them. The ISRP has reviewed a draft plan for the Clearwater and has widely distributed its evaluation, which can serve as guidance on what it will be looking for when it reviews plans. (See: www.nwcouncil.org/library/isrp/isrp2003-3). The ISRP has also held workshops around the basin for subbasin planners on this subject. A summary of the key ISRP review issues can be obtained from the TOAST.

I. INVOICING PROCEDURES

The Project Manager will provide subbasin lead entities with specific invoicing procedures. Each month three documents will be needed as part of the monthly billing:

1. Narrative progress report
2. Invoice for previous month's work
3. Budget status report detailing the overall status of the budget and invoices.

Examples of these three documents can be obtained from the Project Managers or at the following web sites: <http://www.nwcouncil.org/fw/subbasinplanning/admin/Progressreporting>; <http://www.nwcouncil.org/fw/subbasinplanning/admin/invoicingpayment>

Invoices

- ❑ Invoices should be submitted on a monthly basis within thirty (30) days of the close of the billing period. The lead entity (not consultants or subconsultants) should submit the invoice electronically to the subbasin project manager:

Jim Owens -- jowens@coganowens.com; or
Bill Blosser -- billblosserpr@yahoo.com; or
Lynn Youngbar -- lyoungbar@msn.com

Do not submit invoices directly to the Council's Central office.

- ❑ Following review and approval by the project manager, Cogan Owens Cogan will, in turn, submit invoices to the Central office of the Council for payment.
- ❑ Invoicing invoice may include costs incurred from the date of the contract. However, because of the monthly invoicing requirement, multiple-month charges cannot be combined (separate monthly invoices and progress reports will need to be prepared).

- ❑ A ledger-type invoice is required that itemizes personnel hours by task and, in the case of travel expenses, the times at which trips begin and end, telephone, parking and other expenses authorized by the Council's travel rules. Invoices should also include by task, the amount invoiced for the month vs. spent to date vs. total budget.
- ❑ Travel expenses and per diem charges will be reimbursed in accordance with federal travel regulations. Receipts are required for lodging and air travel.

Progress Reports

- ❑ Progress reports are to be submitted monthly and should accompany invoices.
- ❑ For each work task, work completed/underway, deliverables, and any issues/ comments should be described.
- ❑ The project manager will submit a separate Subbasin Planning Progress Report to accompany the invoice and progress report.

III. ASSISTANCE FOR SUBBASIN PLANNING

There are numerous resources to draw upon in preparing subbasin plans. Subbasin planners are reminded to rely upon existing data to the maximum extent possible. A list of key data resources that can be utilized in subbasin plan preparation is provided as Appendix A.

This section describes the technical assistance that will come from several sources for subbasin planners.

A. NOAA FISHERIES ASSISTANCE

The Technical Recovery Teams (TRTs) convened by NOAA Fisheries will provide critical information for the planning process, including identification of demographically independent populations within listed ESUs and recommendations on de-listing goals for salmon and steelhead. In addition, the TRTs will coordinate closely with the TOG/TOAST and may be involved in an advisory or review capacity in the subbasin assessment and planning process.

For the Upper Columbia, Mid-Columbia, and Snake River salmon and steelhead ESUs, interim abundance and productivity targets are available at <http://www.nwr.noaa.gov/occd/InterimTargets.html> and recovery planning guidelines are available at <http://www.nwcouncil.org/fw/subbasinplanning/admin/esa/recoveryplanguidelines>. These interim targets were developed to provide preliminary guidance to subbasin planners on the number and productivity of naturally produced salmon and steelhead spawners that will be necessary for ESA recovery. These interim targets will be updated by the more rigorous viability criteria to be developed by the TRT and the formal recovery planning process. The schedule for TRT document issuance is not known.

For the Upper Willamette and Lower Columbia ESUs, a revised draft document identifying populations is available; this document will be finalized in 2003. The Willamette/Lower Columbia TRT also circulated draft viability criteria for the five listed Upper Willamette/Lower Columbia ESUs in May 2002 and expects to issue a revised draft of those criteria in the fall of 2002.

The co-managers in the Columbia Basin (NOAA Fisheries, the NPPC, the states, the tribes, and others) are working together to provide information on out-of-subbasin conditions for use in subbasin planning. Developing this information is a priority for them and they expect a draft to be available in 2003. This information will address issues such as Columbia mainstem survival, estuarine survival, near-shore and ocean conditions, and out of subbasin harvest and hatchery impacts. There is a potential that a single set of conditions will not be determined, but rather a set of protocols for determining them. In either case, the TOG¹ will provide Oregon subbasin planners with guidance on how to apply them to their plans.²

¹ See below for description of the TOG and the TOAST

² There is no question that out-of-subbasin impacts are substantial. However, the primary role for subbasin planners is to address within-subbasin factors for decline.

The TOAST will forward information from the TRTs and the co-managers to the subbasin planners when it is available and provide interpretation, as needed.

NOAA Fisheries is ultimately responsible for the development of the ESA recovery plans. To ensure that subbasin plans are produced that can serve as components of ESA recovery plans, NOAA Fisheries will be involved to the extent possible in developing initial guidance and ongoing to feed-back to subbasin planners. With regard to the technical aspects of recovery planning, this will involve, but not be limited to, participation in the TOG and the development of “case study” example analyses.

B. COUNCIL ASSISTANCE

From the Council level, the following assistance will be provided:

- The Council is participating with NOAA Fisheries in developing parameters to define “out-of-subbasin” effects that will apply to all anadromous fish populations. As of August 2003 this is not yet available.
- The Council has contracted with Mobrاند Biometrics to provide consulting assistance to subbasin planners on EDT. This assistance will be provided primarily through workshops, but other forms of assistance may also be available.

For general questions about subbasin planning, contact either the Project Manager or Council staff liaison, Lynn Palensky. For Oregon-specific questions, contact either the Project Manager or the Oregon office.

C. OREGON COORDINATING GROUP AND TOAST ASSISTANCE

Introduction

The OCG will provide technical assistance through TOAST and the TOAST Oversight Group (TOG). The overall goal of these groups is to help subbasin planners produce plans that provide a substantial scientific basis for the Council to select and fund recovery projects and for NOAA Fisheries to approve local recovery plans. Their role is to:

- ❑ Provide consistent quality assurance and quality control (QA/QC) of science-based products within subbasin plans for Oregon.
- ❑ Provide consistency of technical products across subbasins.
- ❑ Provide training through workshops to enable local assessment and planning team members to conduct scientifically valid assessments and plans.
- ❑ Provide direct technical support in subbasins missing critical skills or team members.
- ❑ Coordinate with regional entities, including other state-level technical groups and the USFWS and NOAA Fisheries TRTs in addressing technical issues at the scale of Columbia Basin critical to subbasin plan development.

- ❑ Provide common technical resources (e.g. EDT or other population viability tool) and QAHA expertise where economies of scale are significant.
- ❑ Provide basic information common to most or all subbasins, such as out-of-subbasin impacts, ESA compliance, inter-agency policies, etc. for inclusion in the plans.
- ❑ Coordinate the management of data to assure that adequate data management resources exist for subbasin planning and to integrate the data into state and regional databases.

Council funding of TOAST will support the team members' work with subbasins and contracting with other agencies or consultants to perform specific technical tasks to support subbasin planning. However, the available funding will not permit TOAST to provide all the support that may be requested by subbasin planners. TOAST will also not provide direct grants to subbasins to do technical work.

The TOAST Oversight Group (TOG) is formed of senior staff from the agency members of the OCG and chaired by Phil Roger, Columbia River Inter-Tribal Fish Commission. The membership is:

Name	Agency	Phone	E-mail
Phil Roger	CRITFC	503-731-1301	rogp@critfc.org
Tony Nigro	ODFW	503-872-5252 x 5397	tony.nigro@state.or.us
Debbie Colbert	OWRD	503-378-8455 x 316	debbie.l.colbert@wrд.state.or.us
Kelly Moore	OWEB		Kelly.Moore@orst.edu
Karen Tarnow	ODEQ	503-229-5988	tarnow.karen.e@deq.state.or.us
Carl Scheeler	CTUIR	541-276-3449	carlscheeler@ctuir.com

TOG will play these key roles in subbasin planning:

- ❑ Define what technical services the TOAST will provide and which will be provided by subbasin planning teams.
- ❑ Develop a step-by-step guidance for Oregon subbasin planners on how to do the technical analyses and how to implement an EDT or QHA³ analysis.
- ❑ Be the single-point-of-contact liaison between each subbasin planning group and the technical resources of the various agencies, including providing interpretation of the various guidances on subbasin planning.
- ❑ Provide peer review of subbasin plans.
- ❑ Coordinate with the TRTs and the Regional (Level III) Coordinating Group.
- ❑ The DEQ and WRD members of the TOG will play a more limited role, as follows:
- ❑ Routing TOAST's draft analytical protocols, tools and templates to appropriate experts in their agency to ensure planned analyses are consistent with and will support state laws, policies and programs, and meet the agencies' quality control and assurance guidelines.
- ❑ Providing points-of-contact in their agency for accessing, acquiring, and correctly understanding data the agency keeps relative to analyses planned as part of subbasin planning.

³ For further information on QHA, see: <http://www.nwppc.org/fw/subbasinplanning/admin/guides/qha.htm>

- ❑ Routing draft analyses and supporting text to appropriate experts in their agency to ensure analyses have been properly and correctly done and that outcomes are complete, correctly displayed, and appropriately interpreted.
- ❑ Routing draft subbasin plans to appropriate experts in their agency to ensure they are consistent with and support state laws, policies, and programs.

On-the-ground technical assistance to the subbasins will be provided by TOAST, which will be composed of technical staff drawn from agencies and consulting firms. Funding is not available to provide all the assistance needed, so subbasin planners should coordinate closely with TOAST before assuming what level of assistance will be available.

Toast Liason

When the work plan for a subbasin is being developed, the TOG will assign a liaison to the subbasin. This liaison will be the technical resource contact point for the subbasin planners and will assist the subbasin planners in obtaining the technical resources it needs. In particular, the liaison will work with the subbasin planners to develop the work plan and budget for developing the Subbasin Assessment. The liaison will meet with each subbasin technical team as needed and will provide support over the phone and through the Internet.

During the development of the work plan and budget, a key function of the liaison will be to determine how best to complete the Subbasin Assessment given the funding constraints that exist. While EDT is intended to be the principal tool used in assessing anadromous and resident fish impacts and strategies, it will not be possible to use EDT in all subbasins. In addition, varied approaches may be needed to assess wildlife impacts.

Processing Requests for Technical Assistance through TOG/TOAST

Requests for technical assistance will be channeled through the assigned TOG liaison. The budget will not permit the TOAST to provide all support it would like to provide, so the TOG will meet periodically to decide where to allocate its resources. The TOG liaison will also assist the subbasin planners in obtaining assistance directly from agency staff.

D. OWEB ASSISTANCE

The Oregon Watershed Enhancement Board (OWEB) will provide each lead entity with a list of restoration projects completed in the subbasin in a database format. The data will be helpful in completing Chapter III of each subbasin plan. OWEB staff will provide technical assistance to identify information sources of watershed restoration projects. Contact Ken Bierly at 503.986.0182 or Bobbi Rogers at 541.757.4263 ext. 235.

E. FINANCIAL ASSISTANCE

The Northwest Power Planning Council has approved funding for subbasin planning totaling \$15 million for 2002-2004. Part of that funding supports coordination among the various entities that

benefit from the creation of subbasin plans. The Council has also allocated money for technical support for subbasin planning teams.

In addition to direct subbasin funding, the Council is funding technical assistance through the TOAST. Subbasin planners are encouraged to seek alternative funding sources to support their efforts. In developing work scopes and budgets, lead entities/planners should assume that the OCG funding allocation is a maximum and that additional BPA/Council funding will not be available. Additional potential sources include the Oregon Watershed Enhancement Board and the US Army Corps of Engineers.

IV. GUIDANCE ON PREPARING SUBBASIN PLANS

A. PREPARING THE WILDLIFE ASSESSMENT

TOAST has developed a methodology for wildlife assessments, which is provided in Appendix E. The Council Web site also has guidance on wildlife assessments, though it is much more general. (see: <http://www.nwcouncil.org/fw/subbasinplanning/admin/guides/wildlife.htm>) Funding constraints may not permit all subbasins to follow these guidances completely, but they are provided as a description of what ideally would be done.

B. PREPARING THE AQUATIC ASSESSMENT AND GENERAL INTEGRATION OF THE ENTIRE PLAN

The TOAST believes it can be of greatest assistance to the subbasin planning process by assuring that the Subbasin Assessment (Section 3 of the Subbasin Plan) is conducted carefully and consistently and by maximizing the use of existing data. In the following sections, the roles of the TOAST and the local planners are defined for each of the principal tasks in Section 3, and for part of Section 5 of the subbasin plan (see *Technical Guide for Subbasin Planners*). The entity with *Principal Responsibility* (P) for a task will direct that activity, establish a schedule for completion of deliverables, and produce materials (text, tables, figures, appendices, etc.) for inclusion in the final plan. Parties with *Support Responsibility* (S) will provide staff to assist with planning tasks, consult on work products and approach, and review draft deliverables. Those with *Review Responsibility* (R) will review and offer suggestions for improving draft deliverables. *Federal/Regional Groups* include NOAA Fisheries, Technical Recovery Teams, USFWS Recovery Teams, and an interagency out-of-subbasin conditions work group.

It should be noted that these responsibilities are open to negotiation and that an initial effort of the TOG liaison will be to review the following work tasks with the subbasin Lead Entity and/or planners to determine who will do the work. In many cases, the local subbasin planners may already have completed some tasks that are assigned to TOAST below.

Task 1: Training, Tools and Templates

Approach

TOAST develops databases, data management tools and reporting templates for the data identified in Tasks 3-5, below. Sub-tasks include:

- a. Conduct workshops to identify parameters needed for analyses (e.g. EDT, QAR, Extinction Risk, SHaRP, etc.).
- b. Develop prototype products and deliverables.
- c. Work with stakeholders and StreamNet to provide priority information management and sharing functions.
- d. Work with StreamNet project to develop data capture and sharing functions.

Implementation

TOAST will provide data management tools and reporting templates to help standardize work products and reduce redundancy across subbasins. Subbasin teams will be trained in their use in workshops conducted by TOAST.

Deliverables

Database structures, data input and retrieval tools, standard report templates.

Task 2: Identification of Focal Species

Approach

Subbasin planners identify key focal species of anadromous fish, resident fish, and wildlife for analysis. The intent is to select species that can serve as the focus for the Assessment. These species should be selected both for their inherent significance and for their ability to serve as indicators of environmental health for other species. All federally-listed fish species -- both resident and anadromous -- will, by default, be recognized as focal species. Federally-listed wildlife species, as well as managed, HEP and declining species, may be used as terrestrial focal species.

Implementation

Task 2 Tasks/Responsibilities for Identification of Focal Species			
Task	Subbasin Team	TOAST	Federal/ Regional Groups
a. Identify species of importance	P		
b. Identify ESA species			P
c. Identify other species	P	S	
d. Develop final list of focal species	P	R	R
P = principal responsibility; S = support/consultation; R = review responsibility			

Deliverable

List of focal species for Sections 3.2.2 and 3.2.3 of the subbasin Assessment.

Task 3: Data Development for Aquatic Focal Species

Approach

Local planners will develop parameter sets whose values represent the ranges of variability of historic and present status of each aquatic focal species in the subbasin. Sub-tasks include:

- a. Develop draft delineation and characterization of each population, including life history characteristics, genetic history, and relationships between neighbor populations (meta populations). There will typically be 1-5 populations per species in a subbasin, with 1-3 being most common. If no unique populations are identified, it will generally be assumed

that all fish of a given species in the subbasin constitute one population. In the event that a TRT determines that one population transcends two or more subbasins (rare for salmon, more common for bull trout), the affected TRT and subbasin teams will collaborate to determine how to characterize the population.

- b. Develop parameter sets to represent the historic and present population status of the focal species. Population status refers to the stability of a given population as measured by productivity, abundance, life history diversity, and similar factors. Typically, this will be accomplished through reviewing available fish count data, expert opinion, and, possibly, analysis using one of the available statistical population models.
- c. Gather in-basin harvest data.
- d. Identify data gaps and key assumptions used to fill data gaps.
- e. Capture the data developed into a regionally accessible database and send copies of the key reference material to the StreamNet Library.

Implementation

Task 3			
Tasks/Responsibilities for Aquatic Focal Species Data Development			
Task	Subbasin Team	TOAST	Federal/Regional Groups
a. Delineate/Characterize species	P		P (Federal ESA salmon and steelhead only)
b. Determine present/historic populations	P	S	P (Federal ESA salmon and steelhead only)
c. Gather in-basin harvest data	P	S	
d. Identify data gaps and key assumptions	P	R	
e. Capture data in database	P	S	P (Federal ESA salmon and steelhead only)
P = principal responsibility; S = support/consultation; R = review responsibility			

Deliverables

Drafts of Sections 3.2.3 and 3.2.4 of the subbasin Assessment.

Task 4: Out-of Basin Effects

Approach

Procedures for integrating out-of-subbasin environmental conditions into subbasin plans are currently being developed by Council staff in coordination with NOAA Fisheries. Included will be estimated parameters characterizing the effects of out-of-subbasin environmental conditions and management practices on anadromous fish survival and mortality. TOAST will work with local technical teams to incorporate those parameters into subbasin Assessments for anadromous fish. In coordination with the appropriate TRT, TOAST will provide analytical tools and/or support in developing a cumulative assessment of the effect of factors or conditions across the life cycle (i.e., integrating within-subbasin and out of subbasin factors).

Implementation

Task 4			
Tasks/Responsibilities for Out-of-Subbasin Effects			
Task	Subbasin Team	TOAST	Federal/Regional Groups
a. Define out-of-subbasin effects	R	R	P
b. Interpret out-of-subbasin effects parameters for subbasin planners (if needed)		P	
c. Apply parameters	P	S	
P = principal responsibility; S = support/consultation; R = review responsibility			

Deliverables

Draft of Section 3.4 of the subbasin Assessment.

Task 5: Habitat Conditions Assessment

Approach

Subbasin planners develop parameter sets on the historic and present status of habitat conditions for each of the focal aquatic species in the subbasin.

Implementation

Task 5			
Tasks/Responsibilities for Developing Habitat Conditions			
Task	Subbasin Team	TOAST	Federal/Regional Groups
a. Inventory available watershed assessments	P		
b. Characterize the present state of the habitat	P	S	
c. Characterize historic habitat conditions and likely future conditions, if present management practices continue. This step should include a clear description of current and historical conditions, especially with relevance to focal species and a synthesis of that information that identifies and characterizes key opportunities for improvements relative to those species.	P	S	
d. Format these data for use as input in EDT or other analysis tool	P	S	
P = principal responsibility; S provide support/consultation; R = review responsibility			

Deliverables

Databases and GIS maps characterizing habitat conditions and Section 3.3 of the subbasin plan Assessment.

Task 6: Environment/Population Relationships

Approach

Subbasin planners conduct an assessment to relate the status of focal species to habitat conditions and ecological processes in the subbasin. This is the step where population viability tools will be introduced into the analytical process, such as EDT. Subbasin planners should assume that the EDT model will have parameters available for some resident fish species but that it will not address wildlife species or habitat.

Implementation

Task 6 Tasks/Responsibilities for Habitat Condition Assessment				
Task	Subbasin Team	TOAST	Federal/Regional Groups	Mobrand Staff⁴
a. Review existing assessments	P			
b. Review coarse-screen EDT data for fish species	P	S	R	
c. Review terrestrial data	P	S		
d. Define stream reaches	P	S		
e. Create File system for data research		P		
f. Search documents and agency files for data on each reach	S	P		
g. Distribute data to subbasin technical teams		P		
h. Document Level II parameters into EDT and/or other tool for each reach: -- Describe and classify reaches according to the amount of change from historic conditions, and their potential for protection and restoration.	P	S		S
i. Run EDT on-line to develop Level III analysis; and/or utilize other appropriate tools	P	S		S
j. Review EDT and/or other model output	S	P	S	S
k. Use EDT and/or other tools to help define the “problem” and quantify opportunities for production improvements	P	S		
P = principal responsibility; S provide support/consultation; R = review responsibility				

The Assessment component of a subbasin plan should include a clear description of current and historical conditions, especially with relevance to focal species, and a synthesis of that

⁴ The degree of Mobrand assistance will depend on what level of assistance is obtained from Mobrand through subbasin contracts. The Council’s contract with Mobrand will not cover direct assistance to subbasin planners.

information which identifies and characterizes key opportunities for improvements with respect to those species. The Ecosystem Diagnostics Tool (EDT) has been recommended as a common model for use in subbasin planning.⁵ A step-by-step approach to EDT use is provided in Appendix D as an example, not as a mandate.

The EDT model has been populated by Mobrand Biometrics at a HUC6 level, but most subbasin planners and the TOG believe it will be necessary to develop finer-scale data at the reach level. Based on the experience in developing reach-level data in two Oregon subbasins (Deschutes and Sandy), TOG believes that a methodology is available that will enable most Oregon subbasins to develop similar information cost effectively. In some cases, fine scale EDT assessments have been developed for use in tributary habitat planning (e.g., Grande Ronde basin). TOAST will assist subbasin level planners in reviewing and, as necessary, updating those assessments

Where EDT is used, the four critical steps in the process are:

1. *Reach Definition*: The separation of streams/ivers into reaches is critical for development of meaningful recovery plans. Judgement is needed in making these decisions, and planners making the designations will need to have general knowledge of whether data is available to support analyses at the reach level. Where the number of reaches in a subbasin exceeds 150, subbasin planners and the TOG will need to determine whether to work in some areas at the HUC6 level only because there may not be time or resources to work with more than 150 reaches.
2. *Data Gathering*: It is assumed that much of the data needed to populate the EDT is not available from published sources and exists only in agency or Tribal files in uncompiled form. TOAST staff will be assigned to gather this data. It is anticipated that data will need to be gathered from the following sources: Tribes, USFS, ODFW, BLM, BOR. The raw data assembled in this step may or may not be transferred to uniform databases for on-line storage and retrieval, depending on the time and effort involved.
3. *Populating the EDT*: A critical step in applying EDT is the translating of existing data into the 45 or more parameters that need to be inserted into the EDT model for each reach. Two approaches are suggested for doing this efficiently:
 - i. Distribute the data folders on each reach to the subbasin technical team members and let them populate the EDT cells on their own and contract separately with Mobrand to assemble them. Once assembled, the team convenes for a 1-2 day workshop to review the results and resolve differences of interpretation, if any; or
 - ii. Assemble the team in a 2-5 day workshop and have them, as a group, determine the values to put into the model. With either approach, TOAST would assist during the workshops; Mobrand would assist to the extent that the subbasin team wishes to contract with them.

⁵ Note: the TOG will need to determine whether EDT will be applied in all subbasins. The model currently covers anadromous fish species, and is being expanded to cover resident fish species.

Documenting the relationship between available data and the EDT input parameters is a critical task at this step. TOAST, working with Mobrand Biometrics, will work with subbasin planners to ensure clear and consistent documentation across subbasins.

4. There is often a great deal of uncertainty about EDT input values for each reach in addition to uncertainty about the “rules” relating the habitat attributes to life-stage specific survivals and capacities. It is critical to assess how this uncertainty affects the strength of the conclusions that can be reached regarding habitat protection or restoration. Often several alternative EDT datasets could be constructed that would be considered equally “reasonable”, given the current limited empirical information and the breadth of expert opinion. It is important to know if the use of alternative datasets result in similar or dissimilar conclusions. This sort of sensitivity analysis provides information about the level of support for any particular conclusion.

Deliverables

Section 3.5 and inputs to later sections of the subbasin plan.

Task 7: Terrestrial Species Assessment

Approach

Baseline terrestrial assessments can be accomplished through the use of existing databases, assessments and currently available planning tools. These include a) IBIS (Interactive Biological Information Systems), developed by the Northwest Habitat Institute in collaboration with the Council; b) two assessment tools developed by The Nature Conservancy – Conservation by Design (2000) and SITES analytical ecoregional planning model; and c) ICBEMP source habitat assessment. These tools can be used to assess the ecological and/or functional conditions of terrestrial biotic and abiotic systems, as well as to prioritize strategies for ecological protection and restoration.

TOAST will provide subbasin planners with coarse-screened terrestrial data outputs, including initial assessments of Functionally Critical Species and their habitats within the subbasin.

Additional detail on terrestrial species assessments is being developed by TOG, USFS and the Council and is expected to be available by October, 2002.

Implementation

Task 7				
Tasks/Responsibilities for Terrestrial Species Assessment				
Task	Subbasin Team	TOAST	Federal/Regional Groups	Mobrand Staff
a. Select conservation targets: -- Focal species: ESA, HEP, managed species, declining, keystone species, etc. -- Communities: rare or imperiled	P	R		

habitats, unique environments, colonial nesting sites, migratory stopover points, etc. -- Ecosystems: landscape-scale patterns and processes practical for management and monitoring.				
b. Review existing data sets on terrestrial species status.	P		S	
c. Review and integrate existing data sets on terrestrial habitats, including: biodiversity, landownership, land use, environmental considerations.	P		S	
d. Update/refine data sets with more current, complete or refined sub basin information	P	S		
e. Identify existing goals for terrestrial species and habitats	P	S	S	
f. Set goals for focal species and conservation targets: numbers and distribution.	P	S	S	
g. Assess Viability of Target Occurrences: size, condition, and landscape context.	P	S		
h. Select viable occurrences of each target to meet goals.	P	S	S	
i. Identify and rank stresses and sources of stress to focus species and conservation targets.	P	S	S	
j. Evaluate Key Ecological Functions in relation to focus species and conservation targets.	S	S	P	
k. Evaluate/integrate EDT outputs for aquatic systems.	P	S		S
l. Run SITES Optimization Model.	P	S		S
m. Develop strategies to reduce identified stresses to focus species and conservation targets.	P	S		
P = principal responsibility; S provide support/consultation; R = review responsibility				

Deliverables

To be defined.

Task 8: Factors in Decline

Approach

Based in part upon the information developed above, subbasin planners will identify the factors responsible for the declines in focal species and the factors limiting their recovery. For listed salmonid populations, TOAST, in coordination with the appropriate TRT, will provide analytical

tools and/or support in developing a cumulative assessment of the effect of factors or conditions across the life cycle (i.e., integrating subbasin and out-of-subbasin factors).

Implementation

Task 8			
Tasks/Responsibilities for Developing Factors for Decline			
Task	Subbasin Team	TOAST	Federal/Regional Groups
a. Describe the conditions and processes that historically led to the decline of each focal species and of associated ecological functions and processes. -- Relate habitat conditions to each focal species, and identify the habitat features or processes that should be protected or restored. -- Identify the effects of changes in focus species abundance and distribution on closely allied species, their terrestrial habitats, and ecological processes.	P	S/R	S/R
b. Determine key conditions and processes that currently inhibit populations and ecological processes and functions relative to their potential.	P	S/R	S/R
c. Identify current threats or risks for focal species and their habitats.	P	S/R	S/R
d. Distinguish between those factors or conditions that can be corrected or influenced by human intervention from those where human intervention would have little if any effect.	P	S/R	S/R
e. Identify opportunities that directly reduce these threats.	P	S/R	S/R
P = principal responsibility; S = support/consultation; R = review responsibility			

Deliverables

Drafts of Section 3.6, 3.7 and 3.8 of the Assessment.

Task 9: Synthesis and Interpretation

Approach

Subbasin planners will summarize all of the above information in the final section of the Assessment.

Implementation

Task 9 Tasks/Responsibilities for Developing Synthesis			
Task	Subbasin Team	TOAST	Federal/Regional Groups
a. Develop working hypotheses	P	S	R
b. Define species abundance/productivity	P	S	R
c. Develop an ordered list of the most significant factors and threats controlling each focal species, including an explanation of how each factor functions ecologically.	P	S	R
d. Synthesis of findings on fish and wildlife	P	S	R
e. Define desired future conditions	P	S	R
f. Define opportunities and challenges	P	S	R
P = principal responsibility; S = support/consultation; R = review responsibility			

Deliverables

Section 3.9 of the subbasin plan.

Task 10: Plan Development

Approach

Subbasin planners will present the above findings to subbasin stakeholders and assist them to evaluate alternative restoration scenarios to achieve subbasin goals and objectives. Sub-tasks include:

- a. Working cooperatively with local stakeholders and managers, develop and evaluate alternative restoration strategies to meet interim subbasin objectives and biological objectives.
- b. Evaluate preferred alternative(s) and its (their) impacts on subbasin, provincial and regional goals and objectives. Steps a and b may be iterative as time and resources allow.
- c. For the preferred alternative(s), identify assumptions and hypotheses critical to developing and selecting the preferred alternative(s) and estimating its expected outcome.

Implementation

Task 10 Tasks/Responsibilities for Plan Development			
Task	Subbasin Team	TOAST	Federal/Regional Groups
a. Develop alternative restoration strategies.	P	S	R

b. Evaluate alternative restoration strategies.	P	S	R
c. Identify critical assumptions and hypotheses for the preferred alternative.	P	S	R
d. Determine consistency with ESA, CWA and other pertinent requirements.	P	R	R
P = principal responsibility; S = support/consultation; R = review responsibility			

Deliverables

Sections 5.1 – 5.4 of subbasin plan.

Task 11: Research, Evaluation and Monitoring Plan

Approach

Subbasin planners will work with TOAST, the Oregon Plan monitoring team and the TRTs to develop a Research, Monitoring and Evaluation (RM&E) plan for each subbasin which meets subbasin and regional monitoring needs. Sub-tasks include:

- a. Develop a spatial and temporal monitoring program to measure environmental and biological change as projects are implemented.
- b. Identify research needed to clarify critical assumptions and hypotheses and reduce management uncertainty.
- c. Develop an evaluation and reporting schedule and products for periodic review and updating of subbasin plans as needed.

Implementation

Task 11 Tasks/Responsibilities for RM&E Plan				
Task	Subbasin Team	TOAST	Federal/ Regional Groups	OR Plan Team
a. Develop a monitoring program.	P	S	R	R
b. Identify research needs.	P	S	R	R
c. Develop an evaluation and reporting schedule and products for periodic review and updating of subbasin plans as needed.	P	S	R	R
P = principal responsibility; S = support/consultation; R = review responsibility				

Deliverables

Section 5.5 of subbasin plan.

Task 12: TOAST Summary Report

Approach

TOAST develops a summary report on the Oregon subbasin planning experience which characterizes the data and analyses used, including recommendations for provincial and regional planning processes to improve QA/QC procedures, and coordinate research and monitoring activities.

Implementation

Task 12 Tasks/Responsibilities for Summary Report			
Task	Subbasin Team	TOAST	Federal/ Regional Groups
a. Characterize strengths/limitations of data and analyses, including improved QA/QC procedures.	R	P	R
b. Develop recommendations for coordinating monitoring activities to meet ESA and regional needs.	R	P	R
c. Identify and prioritize research needs.	R	P	R
P = principal responsibility; S = support/consultation; R = review responsibility			

Deliverables

Report to Council.

V. CONTACT INFORMATION

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APPENDICES

APPENDIX A

SELECTED RESOURCES

Subbasin planners are encouraged to utilize existing policy direction, plans and data in preparing subbasin plans. For links to many of these resources, see www.subbasins.org. These include:

- ❑ 2000 Columbia River Basin Fish and Wildlife Program
- ❑ Subbasin Summaries
- ❑ 1990 Subbasin Plans
- ❑ Technical Guide for Subbasin Planners
- ❑ May 24, 2002 Letter from NMFS: Subbasin Planning and ESA (www.subbasins.org/admin/esa)
- ❑ NOAA Fisheries Local Recovery Plan Guidelines (www.subbasins.org/admin/esa//recoveryplanguidelines.htm)
- ❑ NOAA Fisheries Interim Abundance and Productivity Targets for Interior Columbia Basin ESUs (www.nwr.noaa.gov/occd/InterimTargets.html)
- ❑ NOAA Fisheries Proposed Policy on the Consideration of Hatchery Production in Endangered Species Act Listing Determinations for Pacific Salmon and Steelhead. (www.nwr.noaa.gov/HatcheryListingPolicy/HatcheryListingPolicy.html)
- ❑ NOAA Fisheries Revised Status Reviews (www.nwr.noaa.gov/occd/Update.pdf)
- ❑ ARPE 2000 Report on Artificial Production
- ❑ EPA/DEQ TMDLs
- ❑ Wy-Kan-Ush-Mi Wa-Kish-Wit
- ❑ Oregon Plan for Salmon and Watersheds (www.oregon-plan.org)
- ❑ ODFW Native Fish Conservation Policy
- ❑ ODFW Basin Management Plans
- ❑ Agriculture Water Quality Management Area Plans
- ❑ Oregon Water Resources Department/Oregon Department of Fish & Wildlife water flow restoration priorities
- ❑ Federal and state land management plans
- ❑ Interior Columbia Basin Ecosystem Management Project Science Assessment Data and FEIS
- ❑ City and County land use plans
- ❑ Watershed Council watershed assessments
- ❑ Soil and Water Conservation District action plans
- ❑ Oregon Watershed Restoration Inventory
- ❑ Recovery of Wild Salmonids in Western Oregon Lowlands (Independent Multidisciplinary Science Team) (www.fst.orst.edu/imst)
- ❑ Conservation Reserve Enhancement Program (<http://www.fsa.usda.gov/pas/publications/facts/orcrep.pdf>; http://www.salmonrecovery.gov/Habitat_Appendix.pdf)
- ❑ Environmental Quality Incentives Program (http://www.salmonrecovery.gov/Habitat_Appendix.pdf)
- ❑ Basin-wide Salmon Recovery Strategy (All-H Paper) (<http://www.salmonrecovery.gov/strategy.shtml>)

APPENDIX B

OTHER GUIDANCES

The attached table lists other guidances that have been developed to assist subbasin planners. They are available from the authors listed.

Item	Date	Focus	Author/Electronic Link	Status
Subbasin Planning 101	2001	Background on subbasin planning process; frequently asked questions	Council www.nwcouncil.org/fw/subbasinplanning/admin/guides/101	Final
Technical Guide for Subbasin Planners	2001	Council guidance on the subbasin planning process and products	Council www.nwcouncil.org/library/2001/2001-20.pdf	Final
Oregon Specific Guidance	10/2/02	Oregon-specific guidance on process for preparing subbasin plans; detailed explanation of technical assistance to be provided	Oregon Coordination Group www.nwcouncil.org/fw/subbasinplanning/admin/level2/or/OregonGuidance	Final; needs updating
Oregon Specific Guidance – Revised Subbasin Plan Outline	4/16/03	Revisions to plan outline to eliminate repetitiveness and to revise terminology	Oregon TOAST (same link as above)	Final
TOAST Roles in Subbasin Planning	Undated	One-page outline of TOAST roles	Oregon TOAST	Draft (?)
Guidance on “Model” Work Plan	11/14/02	Supplemental recommendations for preparing work plans	Oregon Coordination Group www.nwcouncil.org/fw/subbasinplanning/admin/level2/or/guidance	Final
Guidance on Subbasin Plan Proposals	1/28/03	Outline of elements that Council staff looks for in a subbasin plan proposal	Council staff	Final
Using Analytical Tools in Subbasin Planning	2/21/03	Council recommendations on use of analytical tools	Council www.nwcouncil.org/fw/subbasinplanning/admin/guides/tools	Final
Cookbook for Conducting Subbasin Assessments During Subbasin Planning in Oregon	3/8/03	Description of process/time to implement proposed modifications to normal watershed assessment tools	Oregon TOAST	Draft

Cookbook for Conducting EDT Analyses	Undated	Implementation of Oregon TOAST modifications to assessment process	Oregon TOAST	Early draft
Subbasin Planning Data Categories	Undated	Categories of EDT habitat data, basic fish population data, and presumed additional NMFS data priorities	Oregon TOAST	Early draft
A Schematic View of Subbasin Assessment	Undated	Conceptual framework for conducting an assessment	Oregon TOAST	Draft
Guidelines for Rating Selected Level 2 Environmental Attributes	1/03	Guidelines for rating Level 2 environmental attributes to characterize stream reaches as part of an EDT assessment.	Mobrand Biometrics, Inc.	Draft
A Technical Guide for Developing Wildlife Elements of a Subbasin Plan	2/24/03	Template for preparing the wildlife element of a subbasin plan; includes an outline for the wildlife element.	Council staff www.nwcouncil.org/fw/subbasinplanning/admin/guides/wildlife	Final
Oregon Technical Guide for Developing Wildlife Assessments	4/16/03	Template for developing wildlife assessments	Oregon TOAST	Final
Guidance on Mainstem Planning	2/20/03	Guidance on focus, functional distinctions, focal and indicator species, and coordination for mainstem plans	Oregon Coordination Group www.nwcouncil.org/fw/subbasinplanning/admin/level2/or/mainstem	Final
The Treatment of Mainstem Subbasins in Subbasin Planning	4/1/03	Response to questions posed by OCG	Drew Parkin	Unreviewed white paper
A Proposed Strategy for Developing Procedures for Integrating Out-of-Subbasin Conditions into Subbasin Planning within the Anadromous Zone	9/5/02	Proposed process for developing a set of consistent out-of-subbasin parameters for subbasin plans	Drew Parkin	Revised draft

The Role of Out-of-Subbasin Effects in Subbasin Planning	4/16/03	Proposed guidance on integrating out-of-subbasin environmental conditions and management practices into biological assessments; information to be provided	Drew Parkin	Discussion draft
Out-of-Subbasin Effects	Within next 30-60 days	Assumptions on survival rates for anadromous fish outside of their natal subbasin	Level III/Drew Parkin + working group	In development
Recommendations and Guidance for Economic Analysis in Subbasin Planning	1/03/03	Guidance on incorporating local and regional economic impacts into subbasin plans	IEAB	?
Evaluating Subbasin Plans from a Tribal Perspective	Undated	CRITFC-member criteria for evaluating subbasin plans for their overall quality and consistency with Tribal treaty rights	CRITFC	?
ISRP Review of Draft Clearwater Subbasin Plan	2/19/03	Detailed review of draft Clearwater Plan for consistency with Council's Fish & Wildlife Program.	ISRP www.nwcouncil.org/library/isrp/isrp2003-3	Final
A Summary of ISRP Comments on Subbasin Plans	3/8/03	General comments from ISRP review of draft Clearwater Basin Plan	Phil Roger	?
Letter from NOAA Fisheries to Council on Subbasin Planning and ESA	5/24/02	Q/A on relationship between subbasin planning and ESA/recovery planning	NOAA Fisheries www.nwcouncil.org/fw/subbasinplanning/admin/esa/esaletter	Final
NMFS Local Recovery Plan Guidelines	5/24/02	Guidance on what elements subbasin plans need to contain to be adopted as part of a recovery plan	NOAA Fisheries www.nwcouncil.org/fw/subbasinplanning/admin/esa/recoveryplanguidelines	Final
An Abstract of Draft Comments on Subbasin Plans from NMFS	3/8/03	Most relevant comments on subbasin plans from NMFS	Phil Roger	?

US Fish & Wildlife Service and Subbasin Planning	4/17/03	Responses to frequently asked questions about USFWS's perspective on and participation in subbasin planning	USFWS	Final
Subbasin Planning Criteria	Undated	Compilation of NWPPC, NMFS, Tribes, and ISAB/RP criteria for plan review	Phil Roger	Incomplete first draft
Guiding Principles and Expectations -- Wildlife Assessments	10/3/03	Assemblage of ISRP comments as guiding principles for preparing wildlife assessments	WDFW	?
BOR Role in Subbasin Planning	1/24/03	Priorities for BOR participation and points of contact	BOR	Final
Analyzing Key Ecological Functions for Transboundary Subbasin Assessments	11/26/02	Evaluation of the ecological roles of 618 wildlife species for use in USA/Canada transboundary assessments.	Marcot et al	Final
Competitive Acquisition Documentation and Other Contracting Requirements	2/25/03	Direction on requirements for competitive acquisition for subcontracts	Council staff www.nwcouncil.org/fw/subbasinplanning/admin/guides/competitiveacq	Final
Procedures for Invoicing and Payment	Undated	Direction on invoicing and description of process for payments of invoices	Council staff www.nwcouncil.org/fw/subbasinplanning/admin/invoicingpayment	Final
Progress Reporting Requirements	Undated	Direction on progress reports, financial reports and contract amendments	Council staff www.nwcouncil.org/fw/subbasinplanning/admin/progressreporting	Final
Invoicing and Progress Report Procedures – Oregon Subbasin Plans	5/7/03	Procedures for preparing and processing invoices and progress reports	Oregon Project Manager	Final
Invoicing and Progress Report Procedures – Oregon Technical Assistance Contracts	Updated 6/15/03	Procedures for preparing and processing invoices and progress reports	Oregon Project Manager	Final
Bull Trout Recovery Plan	11/14/02	Draft recovery plan and critical habitat designations for bull trout	USFWS	Draft

APPENDIX C

OUTLINE FOR OREGON SUBBASIN PLAN⁶ Revised 4/16/2003

1. Executive Summary

2. Introduction

- 2.1. *Description of Planning Entity*
- 2.2. *List of Participants*
- 2.3. *Stakeholder Involvement Process*
- 2.4. *Overall approach to the planning activity*
- 2.5. *Process and Schedule for Revising/Updating the Plan*

3. Subbasin Assessment

3.1. *Subbasin Overview*

3.1.1. General Description⁷

- 3.1.1.1. Location
 - 3.1.1.2. Size
 - 3.1.1.3. Geology
 - 3.1.1.4. Climate and Weather
 - 3.1.1.5. Land Cover
 - 3.1.1.6. Land Use and Population
 - 3.1.1.7. Economy
 - 3.1.1.8. Land ownership
 - 3.1.1.9. Human disturbances to the aquatic and terrestrial environments
- ##### 3.1.2. Subbasin existing water resources
- 3.1.2.1. Watershed hydrography
 - 3.1.2.2. Hydrologic regime
 - 3.1.2.3. Water quality
 - 3.1.2.4. Riparian resources
 - 3.1.2.5. Wetland resources
- ##### 3.1.3. Hydrologic and ecologic trends in the subbasin
- 3.1.3.1. Macro-climate and influence on hydrology in subbasin
 - 3.1.3.2. Macro-climate and influence on ecology in subbasin
 - 3.1.3.3. Human use influence on hydrology in subbasin
 - 3.1.3.4. Human use influence on ecology in subbasin
- ##### 3.1.4. Regional Context
- 3.1.4.1. Relation to the Columbia Basin

¹ A question sometimes asked about this outline is: do we have to follow it line-by-line or can we change it to suit our own needs? We prefer that you follow it exactly to facilitate combining the subbasin plans into Provincial and basin-wide plans. Also, the outline was developed to make sure that all the issues raised by the ISRP are covered and are readily identifiable. However, the Council will accept any plan that follows the general outline in its Technical Guide. The Oregon Subbasin Planning Coordination Group advises subbasin planners that deviation from the outline may complicate and delay its review.

² This section is intended to provide the reader a quick overview. Greater details on some of the subjects are provided in later sections.

- 3.1.4.2.Relation to the ecological province
- 3.1.4.3.Relation to other subbasins in the Province
- 3.1.4.4.Unique qualities of the subbasin within the Province
- 3.1.4.5.NMFS Evolutionary Significant Units (ESUs)
- 3.1.4.6.USFWS designated bull trout planning units
- 3.1.4.7.Priority species and habitats
- 3.1.4.8.Summary of external environmental impacts on fish and wildlife
- 3.2. *Focal Species Characterization and Status*
 - 3.2.1. Native/non-native Wildlife, Plant and Resident/anadromous Fish of Ecological Importance.
 - 3.2.1.1.Species designated as threatened or endangered (State or Federal)
 - 3.2.1.2.Species recognized as rare or significant to local area
 - 3.2.1.3.Species with special ecological importance to subbasin (may include HEP species, Partners in Flight species, managed wildlife species, critically linked wildlife species identified by IBIS, etc.)
 - 3.2.1.4.Species recognized by tribes (cultural/spiritual significance)
 - 3.2.2. Focal Species Selection
 - 3.2.2.1.List of Species Selected
 - 3.2.2.2.Methodology for Selection
 - 3.2.3. Aquatic Focal Species Population Delineation and Characterization
 - 3.2.3.1.Population data and status
 - 3.2.3.1.1. Abundance
 - 3.2.3.1.2. Productivity
 - 3.2.3.1.3. Life history diversity
 - 3.2.3.1.4. Carrying capacity
 - 3.2.3.1.5. Population trend
 - 3.2.3.1.6. Unique population units
 - 3.2.3.1.6.1.Life history characteristics
 - 3.2.3.1.6.2.Genetic integrity
 - 3.2.3.1.6.3.Spatial Diversity
 - 3.2.3.1.7. Population Risk Assessment
 - 3.2.3.2.Distribution
 - 3.2.3.2.1. Current distribution
 - 3.2.3.2.2. Historic distribution
 - 3.2.3.2.3. Identification of differences in distribution due to human disturbance
 - 3.2.3.3.Description of aquatic introductions, artificial production and captive breeding programs
 - 3.2.3.3.1. Introduction: Current
 - 3.2.3.3.2. Introduction: Historic
 - 3.2.3.3.3. Artificial Production: Current
 - 3.2.3.3.4. Artificial Production: Historic
 - 3.2.3.3.5. Artificial Production and Introduction: ecologic consequences
 - 3.2.3.3.6. Relationship between naturally- and artificially-produced populations
 - 3.2.3.4.Harvest in the subbasin
 - 3.2.3.4.1. Current in-basin harvest levels direct/indirect
 - 3.2.3.4.2. Historic in-basin harvest levels

- 3.2.3.5.Environmental conditions for aquatic focal species
 - 3.2.3.5.1. Characterization of historic
 - 3.2.3.5.2. Characterization of current
 - 3.2.3.5.3. Characterization of potential and estimated reference condition for long-term sustainability
 - 3.2.3.5.4. Characterization of future with no new actions
- 3.2.4. Terrestrial focal species population delineation and characterization
 - 3.2.4.1.Population data
 - 3.2.4.1.1. Present distribution (range map(s) from IBIS if available)
 - 3.2.4.1.2. Current population data and status
 - 3.2.4.1.3. Locally extirpated and introduced species
 - 3.2.4.2.Assumptions about productivity environmental conditions at HUC6 level for focal species
 - 3.2.4.2.1. Historic habitat distribution (IBIS map for each habitat type)
 - 3.2.4.2.2. Current habitat distribution (IBIS map for each habitat type)
 - 3.2.4.2.3. Condition, trend, connectivity and spatial issues
 - 3.2.4.2.4. Habitats currently protected on public and private lands
 - 3.2.4.2.5. Potential and projected future condition with no future actions
- 3.3. *Out-of-Subbasin Effects*
 - 3.3.1. Aquatic
 - 3.3.1.1.Estuary
 - 3.3.1.2.Nearshore
 - 3.3.1.3.Marine
 - 3.3.1.4.Mainstem habitat
 - 3.3.1.5.Hydropower
 - 3.3.1.6.Harvest
 - 3.3.1.7.Hatcheries
 - 3.3.1.8.Basin wide assumptions - effects on productivity and sustainability
 - 3.3.2. Terrestrial
 - 3.3.2.1.Harvest
 - 3.3.2.2.Basin wide assumptions - effects on productivity and sustainability
- 3.4. *Environment/Population Relationships*
 - 3.4.1. Aquatic
 - 3.4.1.1.Important environmental factors for species survival by life stage
 - 3.4.1.2.Optimal characteristics of Key Environmental Correlates (KECs)
 - 3.4.1.3.Environmental potential to KEC's
 - 3.4.1.4.Long-term viability based on habitat availability and condition
 - 3.4.1.5.Determination of key ecological functions
 - 3.4.1.6.Functional redundancy as a key indicator for ecological processes
 - 3.4.2. Terrestrial
 - 3.4.2.1.Important environmental factors for species survival by life stage
 - 3.4.2.2.Optimal characteristics of KECs
 - 3.4.2.3.Environmental potential to KEC's
 - 3.4.2.4.Long-term viability based on habitat availability and condition
 - 3.4.2.5.Determination of key ecological functions
 - 3.4.2.6.Functional redundancy as a key indicator for ecological processes

- 3.4.3. Interspecies Relationships
 - 3.4.3.1. Identification of fish inter-species relationships
 - 3.4.3.2. Identification of wildlife inter-species relationships
 - 3.4.3.3. Identification of key relationships between fish and wildlife
- 3.5. *Identification and Analysis of Limiting Factors/Conditions (section may summarize previously presented information)*
 - 3.5.1. Description of historic factors leading to decline of focus species / ecological function-process - Aquatic
 - 3.5.1.1. Key factors inhibiting populations and ecological processes
 - 3.5.1.2. Key factors for all life stages
 - 3.5.1.3. Determine key disturbance factors inside subbasin limiting populations.
 - 3.5.1.4. Determine key disturbance factors outside subbasin limiting populations
 - 3.5.1.5. Identify where human intervention can or can not have beneficial effect
 - 3.5.1.6. Identify conditions that can be corrected by human intervention
 - 3.5.2. Description of historic factors leading to decline of focus species / ecological function-process - Terrestrial
 - 3.5.2.1. Key factors inhibiting populations and ecological processes
 - 3.5.2.2. Key disturbance factors inside subbasin limiting populations.
 - 3.5.2.3. Key disturbance factors outside subbasin limiting populations (including hydro-power developments)
 - 3.5.2.4. Opportunities for human intervention to have/not have a beneficial effect
 - 3.5.2.5. Conditions that can be corrected by human intervention
- 3.6. *Synthesis/Interpretation*
 - 3.6.1. Subbasin-wide Working Hypotheses – Aquatic
 - 3.6.1.1. Hypotheses
 - 3.6.1.2. Evidence supporting hypotheses
 - 3.6.2. Subbasin-wide Working Hypotheses - Terrestrial
 - 3.6.2.1. Hypotheses
 - 3.6.2.2. Evidence supporting hypotheses
 - 3.6.3. Desired Future Conditions – Aquatic
 - 3.6.3.1. Listed species (recovery goals)
 - 3.6.3.2. Non-listed species
 - 3.6.3.3. Habitat
 - 3.6.4. Desired Future Conditions – Terrestrial
 - 3.6.4.1. Listed species (recovery goals)
 - 3.6.4.2. Non-listed species
 - 3.6.4.3. Habitat
 - 3.6.5. Opportunities
 - 3.6.5.1. Habitat for high priority protection
 - 3.6.5.2. Habitat to reestablish access
 - 3.6.5.3. Habitat for restoration
- 4. Inventory of Existing Activities (Private, Local, State, Federal)**
 - 4.1. *Existing legal protection*
 - 4.2. *Existing plans*
 - 4.3. *Existing management programs*
 - 4.4. *Existing restoration and conservation projects*

4.5. *Gap assessment of existing protections, plans, programs and projects.*

5. Management Plan

- 5.1. *Vision for the subbasin (desired future conditions or goal statements)*
 - 5.1.1. Human use of the environment (economic and social considerations)
 - 5.1.2. Aquatic species
 - 5.1.3. Terrestrial species
- 5.2. *Biological Objectives*
 - 5.2.1. Aquatic species
 - 5.2.2. Terrestrial species
- 5.3. *Prioritized Strategies*
 - 5.3.1. Aquatic species
 - 5.3.2. Terrestrial species
- 5.4. *Consistency with ESA/CWA Requirements*
- 5.5. *Research, Monitoring and Evaluation*

6. Appendices

APPENDIX D

SAMPLE TASK SEQUENCE FOR EDT MODEL DEVELOPMENT AND USE

(Prepared by Bob Rose)

Diagnosis	
Staff training	Technical review and training of all aspects of the EDT process, data requirements and model inputs/outputs. Development of the staff infrastructure. Development of staff coordination at regional level.
Review coarse screen characterization	Review coarse screen characterization of aquatic habitat obtained from the Columbia River Basin Multi-Species Framework.
ID Reach breaks	Identify base layer of all reach breaks, including significant passage barriers.
Orientation meeting - Technical and general public.	Introduction to EDT process and work needs, timing.
Identify all relevant data and documents	A variety of all relevant published and unpublished data will be compiled, including Limiting Factor Analysis and the subbasin summaries, and provided at the workshops. Primarily used in describing physical historic and current habitat characteristics in the Diagnosis and justifying habitat ratings.
Set up electronic version of all documents to be used in the process	All information that is used to conclude a habitat rating is identified and filed in accessible location and manner.
Technical Diagnosis Workshops	Technical teams will be assembled to "rate" habitat attributes according to existing definitions. Data (and comments identifying data sources and reliability) will be input and stored into the standardized "Questionnaire" format developed by MBI
GIS analysis and presentation tools	Presentation tools to be used in both technical and general presentations - analysis techniques compatible with SSHIAP and consistent throughout basin.
Backfilling	Technical work to be completed outside of the workshops for review and input by technical team.
Technical and citizen review workshops	Technical and citizen review of current and historic habitat attributes (Level 2 data) that will be used in the modeled characterization (Diagnosis) of the subbasin
Physical Processes Model Development	Link EDT process with subroutine for Physical PPM approach and model
Develop Engineered Actions	Incorporate a subroutine or PPM socket model to identify causal mechanisms for level 2 attributes and associated actions to "treat" causal mechanisms.
EDT Modeling Run 1	First Diagnosis model results indicating existing condition. Abbreviated preliminary reporting format.

Technical Review of Diagnosis	First Diagnosis review by technical teams for consistency (QA/QC) of observations.
Field Data Collection	Collect field data required to address critical uncertainties identified during technical workshops.
EDT Modeling Run 2 Final Draft Report	Second model run for refinement of Diagnosis. Expanded reporting format (description of data and results).
Sensitivity Analysis	Evaluate the sensitivity of model predictions to data limitations; identify a prioritized list of research and monitoring needs.
Review Final Diagnosis Report	Technical and Citizen Review of the Final Draft of Diagnosis. Final MBI Report review by technical and general public and approved as a working hypothesis of the changes in environmental conditions responsible for affecting productivity of the diagnostic species.
Treatment	
Identification of Working Hypothesis.	The hypotheses provide a synopsis of key results from the assessment, a consistent scientific basis for analysis, and drive the subsequent development of action strategies and a monitoring plan. To develop the hypotheses, scientists from a broad range of disciplines, including hydrology, geology, geomorphology, and salmon biology, will be convened in a workshop to review and integrate the results from the Stream Reach Analysis, Limiting Factor Analysis, Watershed Analysis, and other relevant studies.
Identification of Relevant “Strategy Blocks”	Technical team identifies relevant protection or restoration activities (strategy blocks) that might occur in each reach for each subbasin.
Identify feasibility of Strategy Blocks	Stakeholders/Citizen Team meetings will identify feasibility of potential protection and restoration activities on public and private lands. Technical Team will develop preliminary “Biological Benefit and Risk” assessment for stakeholder review.
Identify effects of Strategy Blocks	Technical team identifies effect of management actions on specific habitat and ecological attributes within each reach.
Development of Alternative Management Strategies	Technical and Citizen Team “mixes and matches” various strategy blocks into various alternative management “themes” or strategies.
Develop preliminary Cost, Benefit Risk analysis of Alternatives	Continue preliminary assessment of potential Cost Benefit and Risks of each alternative. Elements are identified and catalogued as having either a high, moderate or low potential effect (for stakeholder review). Analysis synthesized with engineering design and cost estimates. Information is condensed and incorporated into each Alternative Management Strategy.
Stakeholder review of (potential, or) Alternative Management Strategies	Meeting with sub-basin stakeholders – technical team presents Alternative Management Strategies and associated Cost, Benefit and Risks. Upon approval of this work, technical team submits data to MBI for model run.

Develop Preliminary Engineering Design and Cost Estimates	Generalized diagrams developed for all activities with "significant" capital construction activities. All associated costs identified and estimated.
EDT Model Run -- Alternative Management Strategies	Alternative management scenarios are modeled by MBI
Review model results	Technical Team reviews modeling results, provides additional clarification of modeling
Continue Development/Refinement of Preliminary Cost, Benefit and Risk analysis.	Assessment is highly refined from engineer input and project design. Uncertainties are clearly identified and monitoring tools/costs are identified. Information is used to specifically identify questions to be addressed in the final EDT model run.
Final EDT Model Run Alternative Management Strategies AND future model Sensitivity Analysis (2004)	Final alternative management scenarios are modeled and future modeling sensitivity analysis results are refined.
Technical and General Review of EDT Model results and Final Report	Model results and MBI Final Report reviewed by Technical Teams and synthesized for presentation and review by Citizen Teams and stakeholders. Stakeholders identify management (geographic) areas and Strategy Blocks of greatest interest, then direct Technical Team to finalize potential Strategy Block and geographic area priorities and associated preliminary Cost, Benefit and Risk assessment.
Identification of site-specific projects.	Technical Team identifies and prioritizes site-specific protection and restoration projects within the subbasins.
Finalize Cost, Benefit Risk assessment	Finalize Cost, Benefit Risk assessment. Technical Team and engineers assess each proposed protection and restoration project, provide relatively specific project designs, and specifically address specific Cost, Benefits, and Risks of project implementation, effectiveness and potential for failure.
Final Citizen Team Approval	Final Citizen Team Approval of Cost, Benefits and Risk assessments for each subbasin. Citizen Teams will not authorize project prioritization, as this will be achieved during the "Development of the Columbia Cascade Management Strategy, in Objective 7.
Finalize Subbasin Report	Final Technical Team review and comments incorporated in Final Report
Development Columbia Cascade Management Strategy; Identify subbasin priority activities by reach; Coordinate with 2514 process; Coordinate results with NMFS Technical Review Team process.	Technical team synthesizes all information into final report to stakeholders. Information focuses on biological Benefits, biological and physical Risk to failure and associated Costs for project implementation and monitoring. Assess various proposed projects relative to potential to meet stated sub-basin goals.

APPENDIX E

OREGON TECHNICAL GUIDE FOR DEVELOPING WILDLIFE ELEMENTS OF A SUBBASIN PLAN

April 16, 2003

Overview

This document provides a template to assist subbasin planners in developing the wildlife element of subbasin plans as part of the Northwest Power Planning Council's (NWPPC) Subbasin Planning program. This guidance varies slightly from a similar document prepared for Oregon and Washington in order to tailor it to the particular needs of Oregon subbasin planners. It attempts to show how the subbasin and provincial levels will be integrated, but it does not indicate how this will be accomplished.

This guidance is provided in six sections: 1) Context for Wildlife in Subbasin Planning, 2) Approach to Incorporation of Wildlife in Subbasin Planning, 3) Approach to Wildlife Assessment, 4) Connecting Subbasin and Ecoprovince Planning Efforts, 5) Outline for Subbasin Plan (with terrestrial/wildlife sections highlighted) and 6) Literature Cited.

Context for Wildlife in Subbasin Planning

There are some 772 species and subspecies of mammals, birds, reptiles and amphibians (hereinafter called wildlife) that commonly occur in the Columbia River Basin. Of these, 23 are formally listed as threatened or endangered under the Federal Endangered Species Act (ESA) with 8 more listed as Federal 'candidates'. In addition, many are listed by the State Fish and Wildlife agencies of Oregon, Washington, Idaho, and Montana.

Subbasin planning and implementation efforts require significant interaction and cooperation with Native American Tribes (Tribes), recognizing Tribes' sovereignty, interests in co-management of effected wildlife resources, and cultural and spiritual interests in fish and wildlife resources. Additionally, interaction with stakeholders including landowners with properties that support wildlife species and their habitats is critical to the ultimate success of plan development and implementation. The following Guidance recognizes the importance of these interactions.

'Equitable treatment' for fish and wildlife has been explicitly written into the 1980 Pacific Northwest Electric Power Planning and Conservation Act, which states:

839b(h)(11)(A). The Administrator and other Federal agencies responsible for managing, operating, or regulating Federal or non-Federal hydroelectric facilities located on the Columbia River or its tributaries shall—

839b(h)(11)(A)(i). exercise such responsibilities consistent with the purposes of this chapter and other applicable laws, to adequately protect, mitigate, and enhance fish and wildlife, including related spawning grounds

and habitat, affected by such projects or facilities in a manner that provides equitable treatment for such fish and wildlife with the other purposes for which such system and facilities are managed and operated; [Northwest Power Act, §4(h)(11)(A)(i), 94 Stat. 2710.]

Approach to Incorporate of Wildlife in Subbasin Planning

Wildlife conservation activities are usually conducted in a fragmented way that emphasizes a single species or a habitat type in a small geographic area. Land-use managers at the state, Federal, tribal, watershed, local, and local stakeholder levels want to avoid this pitfall when developing subbasin plans. To this end, we have developed an approach for wildlife planning at the subbasin level that can be integrated into planning at the province or ecoregion (ecoprovince) level. Subbasin planners, however, are responsible only for work at the subbasin level unless explicit arrangements are made to work at a higher level with adjacent subbasins.

Ideally, a two-tier approach would be used to develop the wildlife sections for subbasin plans:

Tier 1: Lead wildlife agencies (e.g., WDFW, ODFW, IDFW, MTFWP, Tribes, USFWS or another entity having statewide or large geographic responsibilities) would develop wildlife information primarily at the province/regional level. Focal species/habitats of concern (FSHOC), such as pygmy rabbits/shrub-steppe, would be addressed initially at the regional level (Tier 1). Most of the information necessary to achieve this is available in the IBIS database, existing regional plans or in existing subbasin summaries. Some of the information in subbasin summaries may need to be aggregated over several subbasins to achieve an integrated view of the ecoregion. These agencies would provide this regional perspective to the subbasin teams to help ensure consistency and a large-scale context for the development of subbasin goals, objectives and strategies.

Tier 2: The Lead Entity in a subbasin (working with wildlife agencies, local conservation and watershed districts, land owners, local stakeholders, and local governments) would develop wildlife and habitat information at the subbasin scale providing species- and habitat-related detail down to the watershed/6th HUC level, as needed. The Northwest Habitat Institute, under contract to the Council, will provide a significant amount of this information directly to subbasin planners. Budget restrictions will limit how much additional information subbasin planners will be able to develop, but at a minimum subbasin plans would identify data gaps. The Lead Entity will provide their findings to the Tier 1 groups to assist with making ecoregion-level adjustments.

No funding has been provided to implement the Tier 1 approach. It is described here because subbasin planners may voluntarily wish to join with others to work at a provincial level, since so many of the wildlife issues reach considerably beyond the borders of each subbasin. Such joint efforts are not a requirement. Section 4 describes how a provincial level wildlife analysis would be conducted.

Purpose and Scope

This section provides a generalized procedure. Work products from this procedure can be used at the subbasin, provincial, and basin scales to integrate wildlife and fish assessments.

This assessment methodology can:

- provide an evaluation of historic (normative) conditions
- provide an evaluation of current conditions
- provide an evaluation of changes in conditions between historic (normative) and current
- provide data, methods, tools, and evaluations that can be useful to address more specific management objectives and strategies (which occurs in the plan)
- can provide an evaluation of the interactions of fish and wildlife

This assessment methodology cannot:

- provide specific management goals and objectives for desired future conditions (this is a question of policy, informed by science)
- answer all possible questions, for example, about population levels of wildlife species, and economic, policy, and social questions
- provide a single set of "best" strategies to meet management objectives
- review and apply all possible data, methods, models, and evaluation tools to evaluate historic (normative) and current conditions

Using IBIS as a Basis for Planning

The subbasin assessment for wildlife (and fish-wildlife relations) presented here consists of three major components: assessment of wildlife *habitats*, wildlife *species*, and patterns of *key ecological functions*. We describe below a core set of assessments that can be conducted using the Interactive Biodiversity Information System (IBIS) database of Northwest Habitat Institute (NHI). NHI has received considerable support in developing IBIS from OSU and the Oregon Natural Heritage Information Center. Guidance is also provided on how to integrate some other local or regional datasets.

IBIS is a wildlife-habitat relationships database of species in the Columbia Basin, expanded to include: key ecological functions of all wildlife and selected fish species, wildlife habitats, habitat structural conditions, key environmental correlates, management activities, selected fish species, and salmonid-wildlife relationships. The scope of IBIS is the Columbia River Basin in the U.S. and Canada, all the rest of Oregon and Washington, including the coastal, estuarine, and marine environments off Oregon and Washington. IBIS contains information on amphibians, reptiles, birds, mammals and fish. IBIS information will be provided by NHI in a text, figure, map or table format and delivered to the subbasin planners via the Internet, e-mail, or CD-ROM. The IBIS wildlife habitat GIS dataset and structural condition class data is at a scale of 1:100,000, or 4th-level hydrologic unit codes or 4HUCs. In general, work at the subbasin scale

will need to use a 1:24,000 scale, or 6HUC scale. Work is underway in Oregon to provide enhanced habitat data layers for Oregon that should be available in time for subbasin planning.

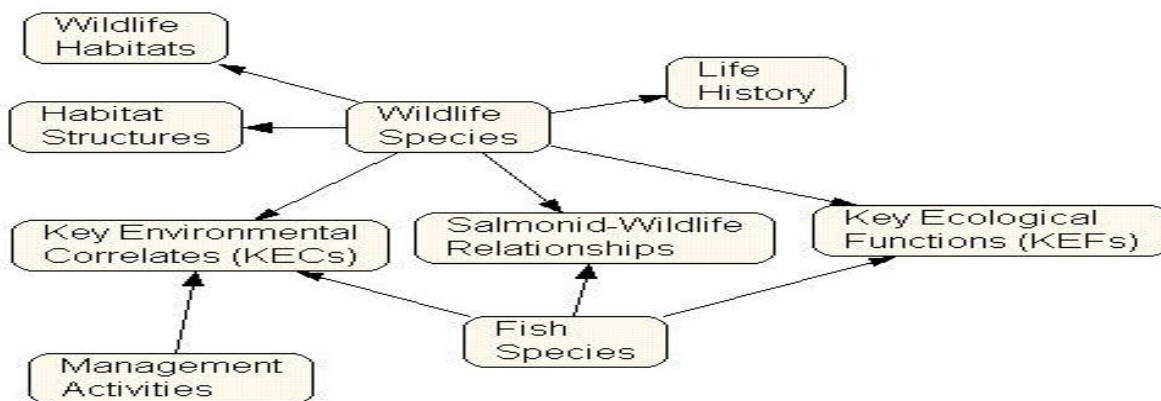


Figure 1: The Nine Primary Matrices that Make-up IBIS

Assessment of wildlife habitats. The approach uses GIS data on historic and current wildlife habitats in the US.

Assessment of wildlife species. The IBIS database contains wildlife habitat and ecological functional data on all 618 wildlife species that are tracked in the Columbia River Basin. IBIS also currently contains range maps of 137 wildlife species that are associated with salmonids; these maps were developed to depict historic breeding, current breeding, and current wintering ranges, showing presence/absence of each wildlife species in each 6HUC. For the rest of the wildlife species, a database lists presence/absence by county in all US states within the Columbia River Basin. The Canadian portion of the CRB may have range maps of all the wildlife species occurring in that portion.

The IBIS database also currently contains historic and current range maps of 27 fish species (9 anadromous and 18 resident species) showing presence/absence in each 6HUC.

Assessment of key ecological functions (KEFs)⁸. The IBIS database currently contains information on 111 categories of KEFs (this list contains some overlap as it pertains to a hierarchical classification) for all 618 wildlife species (including marine species) and 27 fish species (not including subspecies) in the CRB in US and Canada. A functional analysis of KEF patterns can be done for all of these species at the watershed (4HUC) scale, comparing historic and current geographic patterns of functional patterns (levels of functional redundancy or numbers of wildlife species with each KEF), and comparing functional patterns of all wildlife species with patterns of just the 137 wildlife species associated with salmonids. At the 6HUC scale, such functional assessments can be done more reliably for the 137 wildlife species with some salmonid association because the ranges of these species were mapped more precisely at this scale.

⁸ For further explanation of KEF and its applicability in the US and Canada, planners can download a recent paper from the following site: <http://www.subbasins.org/admin/level3/KEFs.htm>

Assessment Methodology

The specific assessment methods detailed here generally follow those of the Multi-Species Framework Approach for the Columbia River Basin⁹.

The assessment focuses on historic and current conditions and serves: a) to identify locations where habitats, species, and functions have deviated the most from historic conditions, b) to help identify areas for potential *restoration*, and c) to identify areas that have most retained their historic character to help identify potential priority areas for *conservation*.

Note: in the sections below where NHI is identified as the Principal provider of information, it will provide the IBIS assessment information via Internet or CDROM. The NWPCC will prioritize provinces for analysis by NHI. Additional assessment requests may be made to NHI and will be addressed on a first-come-first-served basis. Subbasins may have to pay for this service depending on the scope of the request. For questions about the IBIS database and data/analysis requests, NHI may be reached by phone at (541) 753-2199, or at habitat@nwhi.org.

Task 1. Identify Focal Species

Focal species should be selected from, but are not limited to, the following:

1. Threatened, endangered, and state sensitive species
2. Species listed in the Partners in Flight program¹⁰
3. Species used to model impacts from adjacent hydro-development under the USFWS Habitat Evaluation Procedure (HEP Species)
4. Culturally important species (as defined in each subbasin)
5. Managed Species (i.e. game species)
6. Functional Specialist and Critically linked species (These are species that represent the only species performing a few functions or filling a critical functional role in a given analysis area).
7. Species with an association with salmon.

⁹ Marcot, B.G., W.E. McConnaha, P.H. Whitney, T.A. O'Neil, P.J. Paquet, L. Mobrand, G.R. Blair, L.C. Lestelle, K.M. Malone, and K.I. Jenkins. 2002. A multi-species framework approach for the Columbia River Basin: integrating fish, wildlife, and ecological functions. Northwest Power Planning Council, Portland, Oregon. CD-ROM and Web www.edthome.org/framework

¹⁰ Access information at: <http://www.partnersinflight.org/>

Task 1			
Responsibilities for Identification of Focal Species			
Sub-Task	Subbasin Team	TOAST	NHI
1. Identify candidate focal species	P ¹¹	S	
2. Provide species lists for above items #1, #2, #3, # 5, # 6, and #7		S	P
3. Provide list for above item #4	P	S	
4. Develop final list of focal species	P	R	R
P = principal responsibility; R = review responsibility; S = provide support/consultation			

Task 2. Overall Wildlife Habitat Assessment

A wildlife habitat assessment provides information to identify change in wildlife habitat distributions of focal species. The assessment spatially identifies wildlife habitat increases and decreases between historic and current times.

Task 2			
Responsibility for Wildlife Habitat Assessment of Focal Species			
Sub-Task	Subbasin Team	TOAST	NHI
1. Provide Wildlife-Habitat Maps of current and historic conditions for subbasin and the ecoprovince where it resides.	R	S	P
2. Tally the acreages of historic and current wildlife habitat types within each subbasin and tally the percent change in each type. This information will be presented in table and figure format	R	S	P
3. Map wildlife-habitat distributions throughout the ecoprovince to illustrate the extent of each wildlife habitat within a subbasin	R	S	P
4. Determine how much wildlife- habitat/acreage is protected by ownership	R	S	P
5.. Map percent change from historic to current times of each WH in each subbasin as a color-ramped map using quintiles (e.g., in 20% increments, such as 0-20% loss, 21-40% loss, etc.), using red to denote greatest loss and blue to denote least loss or greatest gain; also map as absolute change in total area of each WH; these conditions and changes can also be summarized by WH and by	R	S	P

¹¹ The group designated as having principal responsibility (P) will provide all analyses, figures, tables, and text required for each task.

subbasin in a table displaying percents and areas changed.			
6. Option: Subbasin planners can develop finer-scale data on WH distribution patterns for their subbasin to evaluate spatial patterns for specific WHs corresponding with specific historic or current wildlife occurrences. Where such data cannot be developed, the subbasin plan will need to rely on the IBIS information, as supplemented by local knowledge provided during writing the subbasin plan.	P	R	R
P = principal responsibility; R = review responsibility; S = provide support/consultation			

Task 3. Structural Condition (SC) Assessment

Because structural conditions information is neither available nor consistent across the Columbia River Basin, NHI will use the subbasin team’s focal species list to query IBIS to determine which structural condition classes these species use as close association, for each WH; and then the subbasin team can evaluate the status and changes in these structural condition classes.

Task 3 Responsibility for Structural Condition Assessment			
Sub-Task	Subbasin Team	TOAST	NHI
1. Query IBIS on focal species to determine which structural condition classes these species use as close association, for each WH	R	S	P
2. Evaluate the status and changes in these structural condition classes.	P	S	
Option: Add structural condition classes of each WH, as provided by local data. There may be specific structural conditions (e.g., dense old-growth forests, open old pine forests, mature sagebrush steppe, etc.) of specific conservation concern to the manager, and these can be evaluated individually.	P	S	
Option: Conduct the same analysis as above to identify subbasins and specific WH-SC combinations for potential restoration and conservation.	P	S	R
Option: Evaluate spatial patterns of specific WH-SC combinations as corresponding with specific historic or current wildlife occurrences, as local management issues direct, to further help map WH-SC conditions	P	R	R
P = principal responsibility; R = review responsibility; S = provide support/consultation			

Task 4. Key Environmental Correlate (KEC) Assessment

Because KEC information is neither available nor consistent across the Columbia River Basin, the NHI data provided to subbasin planners will use IBIS and the subbasin team’s focal species list to:

Task 4 Responsibility for Key Environmental Correlate (KEC) Assessment			
Sub-Task	Subbasin Team	TOAST	NHI
etermine which KECs the focal species use as close association, for each WH; and then the subbasin team could evaluate the status and changes in these correlates.	R	R	P
: map presence or abundance (area, numbers, percent cover, etc.) of selected KECs in each subbasin; and	P	S	S
Option: If subbasin planners find a need to evaluate total wildlife assemblages, NHI can provide lists of entire wildlife assemblages given occurrence, extent, and changes in WHs, in subbasins. Where finer-resolution data are available, IBIS also can be used to evaluate the implications of the occurrence of and changes in WHs, structural conditions, and KECs, in each subbasin. This would help identify associated wildlife species and species groups that may have declined or been retained the most since historic conditions. Use relative percent cover of each WH or WH-SC in each 4HUC or 6HUC as a weighting factor; map as changes in overall number of species expected by occurrence of WHs and WH-SCs; color-ramp changes thereof to denote decline in number of species.	P	S	S
Option: evaluate current conditions with additional information for identifying subbasins and KECs for potential restoration or conservation. (it is recognized that many terrestrial KECs, being fine-scale attributes, have not been specifically mapped)	P	S	
P = principal responsibility; R = review responsibility; S = provide support/consultation			

Task 5. Assessment of Wildlife Key Ecological Functions

A key component of ecosystem-based management is to determine how our natural systems are functioning and how they may have changed over time. To address this, NHI will produce the following assessments for the subbasin planning teams to interpret and use as needed:

Task 5			
Responsibilities for Identification of Focal Species			
Sub-Task	Subbasin Team	TOAST	HRI
1. Develop a functional profile for each subbasin using all the species that may occur within it and compare this to the functional roles of the focal species. This helps determine the functional role of the focal species, and how that contributes to ecological functions across a broader, ecoprovince scale. That is, it helps determine if the focal species play ecological roles <i>not</i> generally performed by other species. (A “functional profile” is a chart showing the number of wildlife species -- the “functional redundancy” -- of selected, or all, categories of key ecological functions), occurring in each WH in the subbasin.)	S	S	P
2. Using the functional profiles and the IBIS information, determine which wildlife species are <i>functional specialists</i> . Functional specialists are those wildlife species that perform very few ecological roles, that is, that are coded in the IBIS database with very few key ecological functions. An example is Turkey Vulture, which has the functional role of carrion feeding and little else; it is a functional specialist. The implication is that loss of habitat and resource conditions required by a functional specialist species means loss of that species – e.g., loss of carrion would mean loss of the functional specialist species associated with carrion-feeding.	S	S	P
3. Determine <i>critical functional link species</i> . A “critical functional link species” is a species that is the only species, or one of just a few species, in a particular WH that performs a particular key ecological function. The implication is that, loss of this species may mean loss of this function in that WH. Categories of functional specialist species and critical functional links species could be added to the overall focal species list, if desired. Determine and map change in functional redundancy from historic to current conditions, for selected KEF categories (that can be determined by the subbasin team) and for total functional diversity; map as color-ramped quantiles with red denoting lowest redundancy levels and blue highest. These maps will be based on linking species to WHs.	S	S	P
4. Tally total area in each change quantile class and map change. For selective KEFs graphs changes in redundancy, . (This helps to identify which KEFs have declined or have been best preserved). Since there are so	R	S	P

many categories of KEFs, this analysis will focus on a select subset of KEFs that have the least overlap of wildlife species (defined here as <20% similarity in wildlife species). In this way, analyzing just this subset of KEFs will still tell a lot about overall patterns and trends of ecological functions as a whole.			
P = principal responsibility; R = review responsibility; S = provide support/consultation			

Task 6. Integrated Assessments of Fish and Wildlife Populations and Ecological Functions

The goal of an integrated assessment of fish and wildlife populations is to determine:

- Influence of Fish Habitats and KECs on Wildlife Populations and Functions
- Influence of wildlife KECs on fish populations and functions

The following assessment is dependent on fish habitat data from EDT or other aquatic habitat assessments. It can be applied to all of the 27 fish species present in the IBIS database, or just salmonids.

Task 6 Integration of Wildlife and Fish Analyses			
Sub-Task	Subbasin Team	TOAST	NHI
1. Obtain fish reach-specific (that is, 6HUC-specific) information on presence or levels of fish KECs (i.e., level-2 attributes in EDT)	R	S	P
2. Crosswalk these to the wildlife KEC categories, and determine which wildlife species associate with those KECs, in each 6HUC.	R	S	P
3. Produce an overall list of wildlife species for the subbasin that is associated with these fish KECs and that also would occur in the subbasin based on county occurrence, and/or range maps, and wildlife habitat associations.	R	S	P
4. I think we did this in #2?.	R	S	P
5. Produce a count of KEFs performed by the wildlife species listed above.	R		P
6. Compare lists of wildlife species and KEFs counts derived above based on presence and then absence of the fish KECs.	P	R	S
P = principal responsibility; R = review responsibility; S = provide support/consultation			

Through a process of crosswalking fish KECs and wildlife KECs, subbasin planners can gain insight into the interrelationships between aquatic and terrestrial species assemblages and habitats. Some of these relationships are identified below for consideration. (Some level of modeling outside the IBIS system is desirable to optimize our understanding of these relationships, but it is not required). The following are some of the relationships that subbasin planners may want to analyze:

- Influence of Populations on Other Populations
- Influence of Fish Populations on Wildlife Populations and Functions
- Specific KEF categories are most influenced by wildlife-salmonid associations (pertains to just salmonid fish)
- Influence of Wildlife Populations and Functions on Fish Populations and Functions
- Influence of Populations on Habitats and KECs
- Influence of Fish Populations and Functions on Fish Habitats and KECs
- This is a feedback loop or a fish cross-species influence that is not addressed here.
- Influence of Wildlife Populations and Functions on Fish Habitats and KECs:
- Determine which wildlife species have KEFs that pertain to at least one of the fish KECs.

Task 7. Provincial Considerations (Optional Task)

Note: this is an optional task and may be skipped. Subbasin planners are advised to check with The Nature Conservancy on the status of SITES information for their subbasin, for this may be useful for planning purposes even if the subbasin chooses not to do this optional task.

The evaluation of Provincial factors for wildlife requires a different approach from aquatics because subbasin boundaries are often irrelevant to describing the areas they inhabit or the factors affecting their survival. Ideally, the wildlife assessments for subbasin plans would be done at the *ecoprovince level*. Advances in conservation biology emphasize the need for a holistic approach - protecting the full range of biological diversity at a landscape scale with attention to size and condition of core areas (or reserves), physical connections between core areas, and buffer zones surrounding core areas to ameliorate impacts from incompatible land uses. This “conservation network” must contain habitat of sufficient quantity and quality to ensure long-term viability of wildlife species.

Unfortunately, the current round of subbasin planning does not include funding in Oregon to develop landscape-scale ecoregional wildlife assessments for subbasin planning. Fortunately, much of the work needed to develop an ecoregional assessment and recommended plan elements has been done by The Nature Conservancy (TNC).

The TNC has developed a computer model called SITES which identifies critical lands and waters in ecoregions. SITES takes: (1) species and habitat location data; and (2) a cost index derived from various spatial data layers to identify a system of lands and waters that meets conservation objectives in the most economically efficient manner.

Inputs from the IBIS database, EDT analysis and other modeling and assessment tools can be integrated in various ways with the SITES tool to improve our overall ability to target project actions and predict success of conservation and restoration efforts. SITES uses priority habitats as a course filter and species as a fine filter to site conservation efforts. Regardless of whether the SITES model is used by planners, habitat may still be used as a course filter for locating conservation actions in an ecoprovincial context.

In order to identify all of the lands and waters that with conservation attention would conserve the biological diversity, The Nature Conservancy designs portfolios of conservation areas within and across ecoregions that include multiple occurrences and sufficient area of habitat to maintain the diversity of native species, natural communities and ecological systems. The primary products from this ecoregional planning process are: 1) map products of the lands and waters needed to sustain the biological diversity of the region, 2) the supporting data used to develop the map products, and 3) written documentation outlining the process, the methodology, and the broad strategies necessary to achieve conservation of the portfolio of conservation areas.

For subbasin planners in Oregon, The Nature Conservancy proposes to provide data, map products, written and documentation to the members of the state level teams and to provide technical assistance and consultation on the use and interpretation of these data to members of the state level team and select subbasin planning teams as requested. The Conservancy also proposes to provide other conservation planning tools including SITES V 1.0 (Site Selection Model) and the “Conservation Area Planning and Measures” workbook and technical assistance and training on the use of these tools to members of the state level teams.

The TNC can deliver the following to assist Subbasin planners with determining Provincial impacts and as a critical input to the Management Plan phase.

- 1) One complete set of all spatial data, tabular data, maps and conservation plans will be provided to each member group of the Oregon TOAST and subbasin leads for the Middle Rockies-Blue Mountains Columbia Plateau, Willamette Puget and the Pacific NW Coast.
- 2) One complete set to each member group of the Technical Committees of the SITES V 1.0 software (Site Selection Model) and written documentation; and one complete set to each member of the Technical Committees of the conservation area planning tools including the “Five-S Framework for Site Conservation” (Vols. 1 and 2) and the Conservation Planning and Measures workbook (spreadsheets).
- 3) Training sessions on the use of SITES V 1.0 as a conservation planning tool. Subbasin planners will be notified of these training sessions by TOAST and are invited to attend. TOAST will pay for these sessions out of the state-wide technical funding.
- 4) Technical assistance in the use of sites, interpretation of results, and other general ecological information for describing, developing and evaluating wildlife conservation priorities for individual subbasins in the context of the conservation status and needs of associated ecoregions. Individual subbasin teams wishing to take advantage of this technical assistance will need to budget for subbasin specific support from TNC. This will vary depending on the level of technical expertise in the subbasin team.

Task 8. Out-of-Subbasin Effects

No specific methodology is proposed for this task, and subbasin planners cannot be assured that the information will be provided by others due to lack of budgets. Therefore, subbasin planners will need to use informed opinion from wildlife managers familiar with wildlife in their subbasin. Where quantitative information is not available, use approximations.

Task 9. Limiting Factors

Based in part upon the information developed above, subbasin planners will identify the factors responsible for the declines in focal species and the factors limiting their recovery. At this point in the analysis, the processes for wildlife and aquatic species analysis are the same.

Task 9			
Responsibilities for Developing Limiting Factors			
Sub-Task	Subbasin Team	TOAST	TNC/Sites
1. Describe the factors or conditions that historically led to the decline of each focal species and of associated ecological functions and processes.	P	S	S
2. Determine key factors or conditions that currently inhibit populations and ecological processes and functions relative to their potential.	P	S	S
3. Identify current threats or risks for focal species and their habitats.	P	S	S
4. Distinguish between those factors or conditions that can be corrected or influenced by human intervention from those where human intervention would have little if any effect.	P	S	S
5. Identify opportunities that directly reduce these threats.	P	S	S
P = principal responsibility; R = review responsibility; S = provide support/consultation			

Task 10. Synthesis and Interpretation

The subbasin planners will summarize all of the above information in the final section of the Subbasin Assessment.

Task 10			
Responsibility for Developing Synthesis			
Sub-Task	Subbasin	TOAST	TNC/Site

	Team		s
1. Define species abundance/productivity	P	S	S
2. Develop working hypotheses	P	S	S
3. Define desired future conditions	P	S	S
4. Define opportunities	P	S	S
P = principal responsibility; R = review responsibility; S = provide support/consultation			

APPENDIX F

WILLAMETTE/LOWER COLUMBIA ESA EXECUTIVE COMMITTEE QUESTIONS REGARDING SUFFICIENCY GUIDELINES FOR RECOVERY PLANS 2/28/2003 DRAFT

The Willamette/Lower Columbia ESA Executive Committee (Ex Com) has asked the National Marine Fisheries Service (NOAA Fisheries) to address the following questions related to how NOAA Fisheries will assess the adequacy of ESA recovery plans:

1. What sufficiency guidelines will NOAA Fisheries use to evaluate recovery plans in relation to both threats/limiting factors and biological recovery goals?
2. What analytical tools will NOAA Fisheries use to evaluate the sufficiency of recovery actions and plans?
3. With what degree of specificity do recovery actions need to be identified?
4. What is the relationship between NOAA Fisheries' sufficiency guidelines and the draft RTT population viability criteria?
5. Will NOAA Fisheries evaluate recovery plan actions as they relate to biological criteria or to threats analyses? What role will the TRTs have in evaluation?
6. How will NOAA Fisheries evaluate the sufficiency of individual recovery plan components in the absence of a full ESU recovery plan? Will the criteria for approving an individual recovery plan component be different if other entities within an ESU have *not* developed recovery plans?
7. How will NOAA Fisheries aggregate subbasin/local plans to the ESU scale? At what point in the process will this be done? What analytical framework will be used for assessing the adequacy of the ESU plan?
8. How will NOAA Fisheries communicate sufficiency guidelines to local planners?
9. What if an Ex Com member doesn't endorse NOAA Fisheries' sufficiency guidelines or the viability criteria?
10. How will PFC for site compliance relate to ESU criteria?
11. How and by whom does NOAA Fisheries anticipate the adequacy of existing regulatory and other programs will be evaluated relative to sufficiency of recovery plans and relative to de-listing?
12. Does NOAA Fisheries anticipate reviewing individual subbasin plans? If so, how does that review process intersect with NPPC review, including review by the ISRP and ISAB? What is the timing of that review process and who will conduct it (e.g., TRTs, NWFSC, other science groups, etc.)?
13. ESA recovery plans are supposed to include implementation plans that express the timing and cost of recovery actions, will these implementation plans also obligate entities to implementing specific actions?
14. How will a recovery plan affect section 7 consultations, section 10 permits and 4(d) rule implementation?

The responses below are preliminary and intended to improve understanding of these issues and stimulate discussion. We hope to continue to develop our thinking on these issues through the collaborative recovery planning process and continued discussion with the Ex Com.

Introduction

Recovery planning for Pacific salmon is guided by the statutory requirements of the Endangered Species Act (ESA) §4(f) and by several additional guidance documents. These additional guidance documents consist of (1) a set of policies published jointly by the U.S. Fish and Wildlife Service (FWS) and NOAA Fisheries in 1994; (2) NOAA's 1992 recovery planning guidelines and revision of those guidelines currently underway in collaboration with FWS (joint service guidelines); (3) the Secretarial Order on American Indian Tribal Rights, Federal Tribal Trust Responsibilities, and the Endangered Species Act; and (4) two district court cases. Recovery planning in the Columbia River Basin is also guided by the Northwest Power Planning Council's (NPPC) *Technical Guide for Subbasin Planners* and the *Local Recovery Plan Guidelines*, developed by NOAA Fisheries and distributed with the May 24, 2002, letter from Bob Lohn to Larry Cassidy.

Statutory Requirements

Section 4(f) of the ESA stipulates that recovery plans include:

- (I) a description of such site-specific management actions as may be necessary to achieve the plan's goal for the conservation and survival of the species;
- (ii) objective, measurable criteria which, when met, would result in a determination. . . that the species be removed from the list; and,
- (iii) estimates of the time required and the cost to carry out those measures needed to achieve the plan's goal.

FWS/NOAA Joint Policies

The joint policies promulgated by the FWS and NOAA Fisheries in 1994 provide direction on several aspects of recovery planning, including (1) solicit independent peer review on draft recovery plans; (2) have biologists evaluate all information used to develop recovery plans; (3) include stakeholders in recovery plan development and implementation; (4) incorporate ecosystem considerations in recovery planning and implementation; and (5) include state agencies in recovery plan development and implementation (see 55 FR 34272-34273, July 1, 1994).

Joint Service National Guidelines Revision

NOAA Fisheries is in the process of revising its 1992 Recovery Planning Guidelines through the development of joint recovery planning guidelines with the FWS. The joint guidelines will incorporate joint policies and other updates. The Northwest Region of NOAA Fisheries is participating closely in these revisions. NOAA Fisheries and FWS (Services) expect the guidelines to be distributed in draft form in mid-2003 for use by the Services. In the meantime, the *Local Recovery Plan Guidelines* and any other regional guidance documents referenced herein are consistent with the current NOAA guidelines and incorporate many of the changes that will be included in the joint recovery planning guidelines.

Secretarial Order

The Secretarial Order on American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act, issued on June 5, 1997, clarifies responsibilities of the Departments of Commerce and Interior when implementation of the ESA affects or may affect Indian lands, tribal trust resources, or the exercise of tribal rights. The order establishes that the services shall solicit tribal representation in all aspects of the recovery planning process and shall develop and implement recovery plans in a manner that minimizes social, cultural, and economic impacts on tribal communities consistent with the timely recovery of listed species.

Recent Court Decisions

Recent court decisions have focused attention on the de-listing criteria requirements of ESA section 4(f)ii (see Fund for Animals v. Babbitt [D.D.C. 1995] and Defenders of Wildlife v. Babbitt [D.D.C. 2001]). These court cases establish that de-listing criteria must specifically address each of the five listing factors of ESA section (4)(a)(1).

Technical Guide for Subbasin Planners and Local Recovery Plan Guidelines

Two important guidance documents for recovery planning in the Columbia River Basin are (1) the Northwest Power Planning Council's (NPPC) *Technical Guide for Subbasin Planners*, which was developed with NOAA Fisheries' participation, and (2) the *Local Recovery Plan Guidelines* developed by NOAA Fisheries and transmitted as an attachment to Bob Lohn's May 24, 2002, letter to Larry Cassidy addressing the relationship between subbasin planning and recovery planning. These documents contain detailed and important information regarding expectations for subbasin plan components of ESU-scale recovery plans.

Below we address individually the questions posed by the Ex Com. These answers are preliminary and we expect them to evolve based on continued discussions both internally and with the Ex Com.

1. What sufficiency guidelines will NOAA Fisheries use to evaluate recovery plans in relation to both threats and biological de-listing criteria?

In evaluating whether a species has recovered to the point where it no longer requires protection under the ESA, NOAA Fisheries must evaluate improvements in characteristics such as population numbers, productivity, survival at various life-stages, and geographic distribution to assure that the species is secure and self-sustaining. NOAA Fisheries must also determine that the five listing factors in ESA section 4(a)(1) no longer threaten or endanger the species. Thus, removal of ESA protection requires demonstration that the threats identified at the time of listing—and any new threats identified since listing—have been eliminated, reduced, or otherwise mitigated so the species is no longer “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.”

Recovery plans must adequately identify the threats to the species and the actions required to remove those threats and achieve recovery goals. Evaluating the sufficiency of recovery plans will in large part entail ensuring that all required components are

present, assessing whether key questions have been adequately answered, and assessing whether the actions identified are likely to remove the threats and achieve the de-listing criteria. To facilitate NOAA Fisheries' evaluation, it is important for recovery plans to demonstrate clear linkages between goals, limiting factors, and strategies; to describe the rationale for selecting particular strategies and actions over others; to explain the sequencing of strategies and actions; and to describe how the plan addresses uncertainty and preserves options for adaptive management.

Recovering salmon will require more than a suite of restoration projects, no matter how carefully they are planned and prioritized. Recovering salmon will also require difficult choices regarding land and water development and resource use. There may be a need for adjustments in existing management plans and regulatory programs for land and water development and resource use. To provide adequate certainty that recovery objectives will be achieved, recovery plans will need to identify needed changes and address those choices.

Guidelines NOAA Fisheries will use to evaluate sufficiency of recovery plans are:

a. Are the required elements present?

For elements that should be included in subbasin-scale recovery plans, see the NPPC's *Technical Guide for Subbasin Planners* and the NOAA Fisheries' *Local Recovery Plan Guidelines* distributed with the May 24, 2002, letter from Bob Lohn to Larry Cassidy. For ESU-scale recovery plans, NOAA Fisheries will rely on the statutory requirements and guidance documents described above.

b. Have threats/factors currently limiting recovery been identified accurately, at the appropriate scale, and with sufficient technical rigor?

Essential to recovery planning is the accurate identification of the threats currently facing populations and ESUs. Only then can actions be targeted to the threats that are limiting recovery of the ESU.

For subbasin level recovery plans, see the NPPC's *Technical Guide for Subbasin Planners* (in particular "Questions to be Answered in Developing a Habitat Recovery Plan," pages 5-6), and the NOAA Fisheries' working memo entitled *Draft Subbasin Assessment Principles*, dated 7/18/01 (attached). These documents provide guidance on the expectations for identification of habitat-related threats within subbasins.

The Puget Sound TRT has also developed a draft technical guidance document for recovery planning that provides additional examples of tools that may be useful in conducting technical analyses for recovery planning at the subbasin scale. The draft document, entitled *Integrated Recovery Planning for Listed Salmon: Technical Guidance for Watershed Groups in Puget Sound*, addresses habitat as well as harvest and hatcheries impacts at the subbasin scale.

While subbasin planners should focus primarily on problems and actions within their subbasins, they also need to understand the relationship between survival rates in their subbasins and those in other life stages outside the subbasin. Recovery plans ultimately will need to evaluate survival through all life stages and determine the most effective suite of actions for survival of the ESU as a whole. As a starting point for subbasin planners, NOAA Fisheries is developing sets of assumptions concerning *present* survival rates for life stages outside of the subbasins for each listed ESU. These assumptions will be presented in a quantitative format and can be used (as a baseline) in the first iteration of subbasin planning. NOAA views these assumptions as a starting point and we will work with the TRTs and subbasin planning technical groups on refinements as desired and appropriate.

ESU-scale recovery plans must incorporate the analysis of threats from all the subbasins and address the out-of-subbasin threats. See question 7, below, for a discussion of how subbasin plans will be aggregated to the ESU scale.

- c. **Are strategies and actions linked clearly and logically to the identified threats/limiting factors and is there an adequate description of how the actions proposed will alleviate the threats and achieve the recovery goals?**

The strategies and actions in a subbasin plan or ESU-scale recovery plan need to be directly related to the threats and opportunities identified through limiting factors analyses, and should be prioritized to address the most significant threats and opportunities first. Plans should also describe the rationale for selecting particular strategies and actions over others. This rationale should address both the technical foundation for the strategies and actions as well as the feasibility or likelihood that those strategies and actions would be implemented. There needs to be a reasonable level of confidence that the collective set of actions will correct the problems and achieve the recovery goals. (Questions 1-3 and 11 of this document all relate to how to establish that confidence.)

- d. **Is there a clear and accountable framework and implementation plan for establishing priorities for actions and for stepping down from population-scale strategies and broad actions to actions at particular sites or river reaches?**

Stepping down from population (or subbasin) strategies to actions implemented at particular sites or river reaches will require decisions related to both technical/scientific and policy/socioeconomic issues. Here we address the scientific/technical process of stepping down from population-scale strategies and broad actions to actions to be implemented at specific locations.

We consider the ESU and its component independent populations the appropriate scale for identification of limiting factors and priority strategies. As noted in the

NOAA Fisheries' *Local Recovery Plan Guidelines*, however, it is usually difficult and not appropriate to make technically credible choices about specific parcels or reaches from the broad perspective of a subbasin. For example, at the population scale, it would be possible to identify and prioritize threats such as poor access to spawning habitat, inadequate rearing habitat, or elevated water temperature. In most cases, however, it would not be possible without further assessment to identify the precise locations for restoring habitat access and enhancing rearing habitat, and for identifying which river miles of riparian vegetation should be restored to decrease water temperatures.

Therefore, although recovery plans and their subbasin components should identify specific actions where possible and appropriate, it is also sufficient to identify general strategies and accompany those with directions for prioritizing and stepping down to more precise (finer-scale) actions.

Plans should explain the sequencing of strategies. Actions should be prioritized spatially based on estimated capacities to achieve population recovery goals. Actions in these prioritized areas (watersheds) should themselves be prioritized to address the most significant threats to recovery while capitalizing on the greatest opportunities to increase population productivity. Again, in many cases, finer-scale assessment and planning will be necessary to provide the level of resolution needed for credible implementation of site-specific actions. Where finer-scaled plans are available, they should be recognized and used or referenced in the subbasin plan. Where finer-scaled plans are not available, the subbasin assessment and plan should indicate which areas should be prioritized for finer-scale assessment and funding through state, federal, Council, and other programs.

Subbasin planners need to bear in mind the importance of an implementation plan. NOAA Fisheries has reviewed existing FWS recovery plans and the draft Joint Service National Guidelines. The ESA requires an estimate of the timing and cost of recovery actions. The guidelines and other examples provide that implementation plans should also identify the entities which are appropriate for implementing the actions. Being identified as an entity in a recovery implementation plan does not obligate that entity to action. However, it does identify that entity as one that could play an important role in recovery if it chooses to implement the action.

Commitments by responsible entities can occur at two levels. The first level is the commitment necessary for a recovery plan. This level of commitment can be reached by the entities being aware of and comfortable with their respective *potential* tasks identified in a recovery implementation plan. At this point, the entities should have the intent of taking the recovery actions which they have adopted. However, they are not at this point *obligated*. Those express obligations would come with a second phase or level of commitment that would be a negotiated contractual agreement resulting in a permit through section 7, 10 or 4(d). It is appropriate for a recovery plan to describe and rely on those contractual

agreements that are *already in place*. However, it will not be necessary to have those contractual obligations in place for a recovery plan to be sufficient. Those contractual commitments could be the basis of a second level of ESA assurances beyond a recovery plan, if the entities choose.

e. **Have performance measures and a monitoring program for both implementation and effectiveness been established, including provisions for adaptive management?**

Performance measures and monitoring for implementation and effectiveness are crucial components of recovery plans. NOAA Fisheries will work with federal agencies, states, and tribes to develop coordinated programs for monitoring and reporting on recovery plans at both subbasin and ESU scales.

2. **What analytical tools will NOAA Fisheries use to evaluate the sufficiency of recovery actions and plans?**

In large part, evaluating the sufficiency of recovery actions will entail evaluating how well the plan answers the key questions identified above and in NOAA Fisheries' *Draft Subbasin Assessment Principles*, dated 7/18/01 (attached). While at this time there is no single, unifying analytical tool that can be used to evaluate an entire recovery plan, evaluating how well an individual question is answered will often involve use of analytical tools.

A variety of analytical tools have been developed that address various aspects of recovery plan evaluation, such as trend and extinction risk, habitat-production relationships, and the level of survival improvement that might be expected from different actions. Among the tools currently available are the Cumulative Risk Initiative, the Ecosystem Diagnosis and Treatment model, the Matrix of Pathways and Indicators, the "65/10" model for impervious surface in a watershed, the Ecosystem Recovery Planning for Listed Salmon document being developed by the Northwest Fisheries Science Center (this document was formerly know as Salmon Habitat and Recovery Planning, or SHaRP), and the NOAA Fisheries' *Draft Subbasin Assessment Principles*, dated 7/18/01, (attached). All of these tools have limitations and are appropriate only for certain actions or circumstances. Thus it is reasonable to expect that a variety of analytical tools will be necessary to make the link from actions planned to benefits anticipated.

Because it will be difficult to make that link, it will also be useful for recovery planning to address alternative scenarios for achieving recovery goals and reducing threats. A relative evaluation of alternatives will be more robust than an absolute prediction about the biological outcomes of a given set of actions. An evaluation of alternatives should consider both the biological outcomes as well as the likelihood that the actions in each alternative scenario would be implemented.

The evaluation of alternative scenarios would help recovery planners and NOAA Fisheries understand the relative degree of confidence that proposed plans would succeed in recovery.

Because new tools may be developed during the life of recovery planning, and because we must use the best available science to evaluate recovery plans, it is impossible to say with certainty exactly what tools we will use. We are open to the use of any scientifically credible tools to help us evaluate recovery plans. We hope that our partners in recovery planning have input and suggestions regarding tools.

3. With what degree of specificity do recovery actions need to be identified?

One of the statutory requirements for recovery planning under the ESA is that the plans contain estimates of the time and cost required to carry out the actions identified in the plan—so actions must be identified with enough specificity to make these estimates. (We expect to work with policy groups in each recovery domain to reach understanding of how and by whom these estimates will be developed.) In addition, actions must be identified with enough specificity to evaluate the likelihood that they will achieve de-listing goals and remove threats to the species.

Actions also need to be specific enough to be relevant at both the ESU and the population scale. As discussed above in question 1.iv, in some cases, it may be possible to pinpoint specific land parcels or stream reaches for actions from the population and ESU perspective. In other cases, the specific causes of problems may not be easy to detect at the population scale and finer-scale assessments may be needed before actions can be specified. This will be particularly true where the population/ESU scale action is to correct specific ecosystem processes, for example, sedimentation.

4. What is the relationship between NOAA Fisheries' sufficiency guidelines(s) and the draft TRT population viability criteria?

Recovery plans must contain “objective, measurable criteria” for de-listing. For Pacific salmon, this will include biological criteria based on the viability characteristics identified in NOAA Fisheries' *Viable Salmonid Population* paper as well as criteria related to the threats limiting recovery of the species. As discussed above, NOAA Fisheries will determine the adequacy of a recovery plan based on whether it adequately identifies threats and actions to remove those threats and achieve the de-listing criteria.

The draft TRT population viability criteria are preliminary recommendations for biological de-listing criteria in the Willamette/Lower Columbia ESUs. The TRT intends to complete a review draft of these criteria by late March. We expect recovery goals and de-listing criteria to be developed through ongoing technical and policy interaction between NOAA Fisheries and the Ex Com as well as others participating in subbasin and recovery planning. The Ex Com's goal is to distribute recommended recovery goals and biological de-listing criteria to subbasin planning groups for review and feedback beginning in late spring 2003. Ultimately, recovery goals and de-listing criteria will need to address both biological and threats criteria.

5. Will NOAA Fisheries evaluate recovery plan actions as they relate to biological criteria or to the threat analyses? What role will the TRTs have in evaluation?

We will evaluate recovery plan actions as they relate to both biological criteria and threat analyses. See questions 1 and 2, above, regarding sufficiency guidelines and analytical tools. NOAA Fisheries expects to involve the TRTs and other regional scientists in review and evaluation of recovery plans. The exact role of the TRTs in each recovery domain remains to be defined, as does the role of other regional scientists or other independent science groups.

6. How will NOAA Fisheries evaluate the sufficiency of individual recovery plan components in the absence of a full ESU recovery plan? Will the criteria for approving an individual recovery plan component be different if other entities within an ESU have NOT developed recovery plans?

The discussion below addresses how NOAA Fisheries will evaluate the adequacy of subbasin or regional plans as components of recovery plans under ESA section 4(f).

As stated in the May 24, 2002, letter to the NPPC, we expect that not all subbasin components of a recovery plan will be completed at the same time, and that subbasin plans may be completed before the ESU recovery plan is complete. We will treat subbasin plans developed in the present round of planning as interim local recovery plans and will evaluate them independently as they are completed. Through the process of completing ESU-scale recovery plans, we may identify adjustments that are needed to local subbasin recovery plans (e.g., as a result of ESU-scale considerations relevant to the populations or as a result of new data from research and monitoring). We would expect such adjustments to be made in the subsequent round of the NPPC's subbasin planning.

An ESU-wide recovery plan might conclude that there is some flexibility in terms of individual population status. In the absence of an ESU-wide recovery plan, NOAA Fisheries will treat each population as essential to the recovery of the entire ESU and expect each subbasin plan to meet the viability goals for all populations in that subbasin.

The Lower Columbia Fish Recovery Board (LCFRB) expects to prepare a regional plan that covers the Washington portion of the Lower Columbia ESUs. The group anticipates that it may have a complete plan before whole-ESU scenarios have been developed and analyzed in coordination with Oregon groups and has asked what kind of flexibility they may have in putting together partial ESU scenarios that incorporate flexibility in terms of population goals. We will need to explore this question with the Willamette/Lower Columbia TRT, and we also need to explore options for developing whole-ESU scenarios with the Ex Com. NOAA Fisheries endorses LCFRB's intentions to aggregate its subbasin plans at a regional scale. A key consideration in our ability to evaluate the LCFRB component of the recovery plan will be whether the LCFRB options preclude the later formulation of ESU-wide scenarios.

7. How will NOAA Fisheries aggregate subbasin/local plans to the ESU scale? At what point in the process will this be done? What analytical framework will be used for assessing the adequacy of the ESU plan?

As described in the May 24, 2002, letter from Bob Lohn to Larry Cassidy, NOAA Fisheries expects that ESU-scale recovery plans will be constructed from the present round of subbasin plans (scheduled for submittal to the Council from 2002 to 2004) and from “out of subbasin” components including large-scale harvest, large-scale hatchery, mainstem hydropower, assumptions about ocean survival and natural variability (including climate change), integrated monitoring, evaluation and research, and an economic assessment.

The process of aggregating sub-basin plans into an ESU plan will be iterative and involve evaluation of ESU scenarios based on the results of subbasin assessment and planning information. For example, using the TRT guidelines for ESU viability, we can develop multiple scenarios for recovery of a particular ESU. With information provided in subbasin assessments on the threats and limiting factors for each population, we can then evaluate opportunities and ecological feasibilities for individual populations and for the various ESU scenarios. As a gross simplification, for ESU recovery, either population A or population B is needed. Population A is located within an area of significantly degraded habitat; population B is located in an area of highly functioning habitat. The assessments would provide a technical evaluation of current habitat capacity and conditions (threats status) for these populations, as well as of the technical feasibility of achieving viability goals for the populations. Policy input would evaluate the social/economic feasibility of actions to address those threats and help select which scenario to pursue. Policy choices will have a significant influence because it is crucial that the selected suite of actions have a reasonable likelihood of implementation. The subbasin plan/recovery plan would be built around that subset of populations where science and policy have deduced the greatest confidence that actions will be implemented that lead to ESU recovery.

We expect to work with policy groups in each recovery domain to reach understanding of how and by whom these ESUs scenarios will be developed. For instance, in the Willamette/Lower Columbia domain, NOAA Fisheries will continue discussing this question with the Executive Committee to reach agreement on content, sequencing, and timing of major steps in the process, as well as on roles and responsibilities of the various parties at each step.

8. How will NOAA Fisheries communicate sufficiency guidelines to local planners?

NOAA Fisheries has been working to keep local planners informed as we develop guidance for recovery planning. We anticipate that most additional guidance will be distributed through the policy channels that are guiding the local planning process, such as the Lower Columbia Fish Recovery Board and the Oregon Subbasin Planning Coordinating Group.

9. What if an Ex Com member doesn't endorse NOAA Fisheries' sufficiency guidelines or the viability criteria?

A recovery plan can succeed in recovering listed species only if it is implemented. Therefore, it is crucial that those with the interest, responsibility and authority to implement recovery actions also understand and endorse our recommended approach to recovery planning. Our goal is to reach consensus on scientifically valid sufficiency guidelines and viability criteria that conform to the ESA. We have supported and participated in the collaborative recovery planning process with that goal in mind, and our operating assumption is that we will achieve it. We also believe NOAA Fisheries and Executive Committee members will be well-served by seeking peer review of our sufficiency analyses. If after our collaborative process and peer review we are unable to reach consensus, then NOAA Fisheries will determine and communicate how it will exercise its statutory responsibilities under the ESA. As we have made clear throughout the recovery planning process, we welcome and will consider any Ex Com member's comments on proposed guidelines or criteria.

10. How would PFC for site compliance relate to ESU criteria?

NOAA Fisheries uses the term properly functioning condition (PFC) to define the habitat component of a species' biological requirements for long-term survival and recovery. The underlying premise of PFC is that needed habitat types and attributes depend on maintaining necessary distributions and frequencies of habitat forming processes and disturbances, such as floods, landslides, and wildfires. PFC is the sustained presence of natural habitat forming processes in a watershed (e.g., riparian community succession, bed load transport, precipitation runoff pattern, channel migration) that are necessary for the long-term survival of the species through the full range of environmental variation.

NOAA Fisheries developed the concept and framework of PFC for use in determining the effects of specific actions on habitat at the site-specific, or project-specific, level. Actions in questions are analyzed and required to provide PFC at the same geographic scale at which the action takes place, whether a large tract of forest land or a small wood lot, for example. The PFC concept has been useful at these scales in part because we lack knowledge about population requirements for recovery and about habitat requirements for recovery at the population and ESU scales. Recovery planning can decrease uncertainty about the population requirements and large-scale habitat needs for recovery—or more particularly, about the amount and distribution of life-stage specific habitat types needed for recovery.

Defining PFC in terms of the large-scale habitat needs for recovery differs from defining PFC at the site-specific level, and it is a challenging task. Ultimately, a PFC equivalent needs to be defined and provided at the population and ESU scales. Subbasin assessments that describe the types, distributions, and frequencies of habitat sustaining processes necessary to sustain all life stages within the subbasin will be helpful in defining these large-scale habitat needs. For example, assessments used in recovery plans should identify the location and causes for disruption of ecosystem function that are

reducing survival at specific life history stages. If strategies and actions focused on those specific locations are implemented and restore appropriate patterns of habitat sustaining processes, the habitat component of long-term survival and recovery of listed salmon should be addressed.

11. How and by whom does NOAA Fisheries anticipate the adequacy of existing regulatory and other programs will be evaluated relative to sufficiency of recovery plans and relative to de-listing?

The question posed by the Ex Com correctly distinguishes between evaluating the adequacy of programs (regulatory and other land, water, and fishery management or conservation programs) for a recovery plan and evaluating the adequacy of regulatory and other programs at the time of de-listing. In the first case, recovery planners need to evaluate whether existing and proposed programs have a high likelihood of meeting the recovery goals. The second case assumes that recovery goals have been met and that NOAA Fisheries is evaluating whether de-listing is warranted. In making a decision to de-list, NOAA Fisheries will need to determine that regulatory and other programs in place *at that time* are adequate to maintain viability and avoid listing the species again in the foreseeable future. At the time of a future delisting decision, there might be additional threats, which are not now known or significant, that NOAA Fisheries would have to consider. We address the first scenario (approving a recovery plan) in more detail here but not the second (de-listing) scenario.

There are two consistent public statements pertinent to evaluating existing programs and actions for subbasin plans and local recovery plans. First, the NPPC's *Technical Guide for Subbasin Planners* states that, ..."The planner should look at the relationship between the existing activities and the assessment to identify gaps between actions already taken and the actions that are needed. This "gap analysis" will provide the context to the general needs within the subbasin...." Second, NOAA Fisheries' *Local Recovery Plan Guidelines* (enclosed with a May 24, 2002 letter on subbasin planning from Bob Lohn, NOAA Fisheries to Larry Cassidy, Northwest Power Planning Council) asked subbasin planners to "identify existing local management programs and evaluate their ability to fix the limiting factors and factors for decline and to meet recovery goals." Both statements express the need to evaluate actions and programs underway for their ability to fix problems and meet goals. Below we provide additional guidance for an adequate assessment of the likelihood that management and conservation programs will meet recovery goals.

Evaluation of programs should occur at two scales – the population or subbasin scale and the ESU scale. The evaluation should encompass existing land, water, and fishery conservation and management programs, both regulatory and non-regulatory, and any enhancements in those programs or new programs proposed to fill identified gaps. The evaluation should include (a) assessment of whether the scope and authorities of the programs adequately address the full range of identified threats and (b) more detailed assessment of the likelihood that the programs will be effective in eliminating, reducing, or mitigating the threats and achieving the recovery goals.

Scope of recovery plan strategies and programs. The strategies proposed in a recovery plan, or a subbasin component of a recovery plan, must be consistent with and directly relate to the nature and extent of threats being addressed in the plan. Thus it is important that the plan:

- identify credible strategies for addressing the full range of threats and limiting factors identified in assessments and demonstrate clear linkages between goals, limiting factors, and strategies;
- identify existing programs and authorities for implementing those strategies;
- describe any gaps between existing programs and authorities and those needed to implement the identified strategies, and propose how to fill those gaps with new or enhanced programs;
- explain how the plan addresses uncertainty and preserves options for adaptive management.

Likelihood that the programs will be effective. To establish confidence that programs will be effective, recovery plans should:

- explain in detail how the programs are likely to rectify the identified threats and limiting factors;
- identify explicit, measurable objectives for the strategies and recovery plan actions and target dates for achieving them;
- identify the steps necessary to step down from broad scale strategies to actions at specific sites, areas, or stream reaches;
- contain clear provisions for monitoring and reporting progress on implementation of recovery plan actions.

The Ex Com and others in the Columbia Basin have also asked who should be responsible for conducting these evaluations. NOAA Fisheries believes that this decision would be best made through discussions with the individual state-wide subbasin planning groups.

12. Does NOAA Fisheries anticipate reviewing individual subbasin plans? If so, how does that review process intersect with NPPC review, including review by the ISRP and ISAB? What is the timing of that review process and who will conduct it (e.g., TRTs, NWFSC, other science groups, etc.)?

Because NOAA Fisheries hopes to include subbasin plans as components of ESU-scale recovery plans, we anticipate reviewing individual subbasin plans to the extent possible. We will consider three general questions in this review, 1) Does the plan meet recovery sufficiency guidelines? 2) Is the plan scientifically credible? 3) Is there a likelihood that the plan will be implemented? In conducting these reviews, we hope to rely on independent review panels to the extent possible. Ideally, these reviews will be integrated with the Council's review process for subbasin plans under the Fish and Wildlife Program and with other science reviews such as those developed by statewide

recovery efforts like Washington's salmon recovery boards. We hope to avoid establishing a completely independent review process and instead will endeavor to work with and rely in large part on other review processes.

13. ESA recovery plans are supposed to include implementation plans that express the timing and cost of recovery actions, will these implementation plans also obligate entities to implementing specific actions?

The answer to this question is provided in large part in the discussion under question 1.D. However, it is worth repeating here. Subbasin planners need to bear in mind the importance of an implementation plan. NOAA Fisheries has reviewed existing FWS recovery plans and the draft Joint Service National Guidelines. The ESA requires an estimate of the timing and cost of recovery actions. The guidelines and other examples provide that information in an implementation plan should also identify the entities which are appropriate for implementing the actions. Being identified as an entity in a recovery implementation plan does not obligate that entity to action. However, it does identify that entity as one that could play an important role in recovery if it chooses to implement the action.

Commitments by responsible entities can occur at two levels. The first level is the commitment necessary for a recovery plan. This level of commitment can be reached by the entities being aware of and comfortable with their respective *potential* tasks identified in a recovery implementation plan. At this point, the entities should have the intent of taking the recovery actions which they have adopted. However, they are not at this point *obligated*. Those express obligations could come with a second phase or level of commitment that would be a negotiated contractual agreement resulting in a permit through section 7, 10 or 4(d). It is appropriate for a recovery plan to describe and rely on those contractual agreements that are *already in place*. However, it will not be necessary to have those contractual obligations in place for a recovery plan to be sufficient. Those contractual commitments could be the basis of a second level of ESA assurances beyond a recovery plan, if the entities choose.

14. How will a recovery plan affect section 7 consultations, section 10 permits and 4(d) rule implementation?

That is a question that is not directly relevant to the sufficiency of a recovery plan. However it is an important often asked. NOAA Fisheries is presently working internally on a more detailed response. In general terms, however, an ESU-wide recovery plan will provide guidance and context for all permit actions that occur within the affected area. Therefore, federal agencies, for example need to be prepared to build the goals, actions and implementation guidelines of recovery plans into all of their programs and actions that are subject to sections 7(a)(1) and 7(a)(2) of the ESA.

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