

THE INTERIOR COLUMBIA BASIN STRATEGY

A Strategy For Applying The Knowledge Gained By The Interior Columbia Basin Ecosystem Management Project To The Revision Of Forest And Resource Management Plans And Project Implementation

I. Introduction

The Interior Columbia Basin Ecosystem Management Project was based on Presidential direction to develop a scientifically sound, ecosystem based strategy for management of 64 million acres of lands administered by the Forest Service and the Bureau of Land Management within the Columbia River Basin, and portions of the Klamath and Great basins in Oregon. The Project was based on concerns over forest and rangeland health, uncharacteristically intense wildland fires, threats to certain fish and wildlife species, and concerns about local community social and economic well being. In addition, there was little broad-scale scientific knowledge of the ecological, biophysical, social, and economic conditions, trends, risks, and opportunities within the planning area.

The Eastside Ecosystem Management Project Charter was the catalyst for the Interior Columbia Basin Ecosystem Management Project (Project) in January 1994. The Charter, signed by the Chief of the Forest Service and the Director of the Bureau of Land Management, directed the agencies to develop and adopt a scientifically sound, ecosystem-based strategy for managing all FS and BLM administered lands within the Basin. A scientific assessment of the Basin provides a better understanding of the scope and possible broad-scale causes of current resource conditions. The scientific findings formed the basis for an array of management strategies evaluated by the Project.

A Final Environmental Impact Statement (FEIS) and Proposed Decision were published in December 2000. The State Directors and Regional Foresters elected not to prepare a Record of Decision and instead have chosen to complete the Project through use of this “*The Interior Columbia Basin Strategy*”, herein referred to as “Strategy”). The Strategy provides guidance for incorporating the science data and resource information developed by the Project into land and resource management plans and project implementation. The Strategy takes into consideration concerns raised by the public throughout the planning process and the findings of the Science Assessment. The Strategy identifies key elements that need to be addressed in future planning efforts.

Local planning efforts will identify where, when, and how those needs should be addressed.

This Strategy complements other efforts that address natural resource issues within the Basin, e.g., Federal Caucus All-H paper, Northwest Power Planning Council (NWPPC), PACFISH/INFISH Biological Opinions, State Recovery Plans for bulltrout, Canada Lynx Conservation Strategy, TMDL development and implementation, and 303(d) related efforts, the National Fire Management Plan, the Healthy Forests Initiative, and the Western Governors' Association report "A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Strategy Implementation Plan May 2002".

The Strategy will be used to guide the amendment and revision of land and resource management plans for the administrative units of the Forest Service and BLM within the Basin as follows:

Forest Service: Boise, Payette, Salmon-Challis, Sawtooth, and portions of the Caribou National Forests in the Intermountain Region; Idaho Panhandle, Clearwater, Nez Perce, Kootenai, Lolo, Flathead, Helena, Deerlodge, and Bitterroot National Forests in the Northern Region; and Ochoco, Winema, Malheur, Deschutes, Fremont, Wallowa-Whitman, Umatilla, Okanogan, Wenatchee, and Colville National Forests in the Pacific Northwest Region.

Bureau of Land Management: Lower Snake and Upper Snake River Districts, and the Upper Columbia-Salmon Clearwater District in Idaho Missoula Field Office in Montana and Prineville, Lakeview, Burns, Vale, and Spokane Districts in Oregon and Washington.

II. Vision

It is the vision of the Regional Foresters and State Directors:

That agency personnel will work with the public, involved regulatory agencies and tribal governments, State and local governments, and the science community to conserve rare ecosystems, restore degraded ecosystems, and provide benefits to people within the capabilities of the land.

That the foundation of science for the management of National Forest and Bureau of Land Management lands will be constantly updated and refined based on new information and consideration of the best available science, pertinent to the Interior Columbia Basin and its resources, developed during the life of this strategy.

That the management of Forest Service and BLM administered lands throughout the Basin will contribute to:

- Sustaining, and where necessary and practical, and within available funding, restoring the health of forests, rangeland, aquatic, and riparian ecosystems.

- Providing a predictable, sustained flow of economic benefits within the capabilities of the ecosystems.
- Providing diverse recreational and educational opportunities within the capability of the ecosystems.
- Contributing to the recovery and de-listing of threatened and endangered species, and 303(d) listed waters.
- Managing natural resources consistent with treaty and trust responsibilities to American Indian Tribes.

III. Science Findings & Other Analysis Tools

The planning principles and guidance presented in this Strategy are based on the findings stated in the *Integrated Scientific Assessment for Ecosystem Management* (PNW-GTR-382, September 1996)(Science Assessment), *An Assessment of Ecosystem Components in the Interior Columbia Basin and Portions of the Klamath and Great Basins (Volumes I through IV - PNW GTR-405, 1997)*, the analyses supporting or developed as part of the ICBEMP, and all reports generated by the ICBEMP project; all hereinafter referred to as the **ICBEMP Science**. It is the expectation of the Regional Foresters, the State Directors of BLM, The Research Directors of Forest Service Research at PNW and RMRS, the Regional Directors of the Fish & Wildlife Service, National Marine Fisheries Service, and the Environmental Protection Agency that the findings of the ICBEMP Science, new information, and the consideration of best available science from a variety of sources such as universities, USGS research, etc. developed during the life of this strategy will be used in the development of land and resource management plans and in the design and implementation of resource management projects including consultation and participation in plan and project design. Consideration will also be given to utilization of the tools and products of previously developed Interagency Implementation Team (IIT) efforts i.e., Road Density Analysis Report of unroaded areas, the cross Forest/District network of priority and key watersheds, and the Restoration Strategy consistent with NOAA Fisheries 1998 biological opinion.) during the development of forest and resource area management plans.

The **ICBEMP Science** characterizes the Basin as a region of tremendous ecological and socioeconomic diversity. While substantial variability exists in resource conditions and capabilities, resource elements are, in many cases, strongly interconnected. The scientific findings are summarized in *Status of the Interior Columbia Basin: Summary of Scientific Findings* (PNW GTR – 385) and in *Highlighted Scientific Findings of the Interior Columbia Basin Ecosystem Management Project* (PNW GTR- 404).

The *Highlighted Scientific Findings* document (page 12) provides a summary of three themes that ecosystem strategies should address:

1. Multiple Risks to ecological integrity and economic well being shall be recognized and managed.
2. Risks and opportunities differ significantly across the project area. Management plans shall recognize this variation.
3. Individual sites are linked to ecological processes and human activities. These links shall be understood and considered.

This Strategy recognizes the need to manage risks, especially for long-term desirable outcomes.

This Strategy considered these themes and addresses the “vital” issues that are broad in geographic scope and significantly interconnected where natural resource management effectiveness could benefit from broad regional strategies. These are landscape dynamics (including forest and rangeland health), the conservation of aquatic and terrestrial species habitats, and collaboration with communities, Tribal governments, and among agencies.

IV. Planning Principles and Guidance

The **ICBEMP Science** provides important support for the principles and guidance that are presented in this Strategy. These applications will provide a base of information for the development of all land and resource management planning efforts on FS and BLM administered lands within the Basin. The land and resource management plans provide the explicit programmatic direction that governs management and/or permitted actions on these federal lands.

Until administrative unit plans are amended or revised utilizing the ICBEMP Science in this Strategy, management will continue under current plans. This will include interim PACFISH, INFISH direction and applicable consultation and biological opinions, as well as the Eastside Screens for Oregon and Washington National Forests.

Upon completion of amendment and revision efforts, revised or amended forest and resource management plans will replace interim PACFISH & INFISH direction and Eastside Screens as appropriate.

A. Landscape Dynamics

Landscapes are healthy when their components and processes are functioning properly. The challenge is to achieve healthy landscapes considering the context of the needs and desires of society. Healthy landscapes, which have adapted over time to have higher resilience to local disturbance and lower susceptibility to catastrophic events, are necessary to sustain and achieve the needs and desires of present and future generations.

To address landscape dynamics, plans need to consider succession/disturbance regimes (such as fire or insects or floods) and processes (such as the flows and cycles of nutrients and water) and their dynamics. Direction that is developed to address landscape

dynamics provides the foundation for additional direction addressing habitats and social-economic issues. Direction developed in land and resource management plans shall address the following principles:

- Future management options are preserved by maintaining and promoting healthy, productive and diverse ecosystems and by restoring, through a system of prioritization, areas that are degraded.
- Efficiencies and effectiveness can be enhanced by consolidating and coordinating restoration activities to the extent possible, so that multiple needs can be addressed.
- An integrated mix of restoration activities should provide for re-patterning succession and disturbance regimes and achievement of sustainable landscape conditions, thereby contributing to a reduction of events such as uncharacteristically large and severe wildland fires.
- Wildland fire planning shall be incorporated into existing planning processes and assessments, recognizing its essential role as an ecological process. Clearly define fire management goals and objectives in relation to the National Fire Plan, including a goal to reduce the risk of wildland fire in urban-rural wildland interface areas.
- Hydrologic processes characteristic of the geo-climatic setting are essential to creating and sustaining riparian, aquatic and wetland habitats therefore these processes should be maintained or restored through management actions that resemble the effects of natural disturbance patterns. Hydrologic processes should be maintained or restored through management actions that consider existing watershed and stream channel conditions, and when appropriate, resemble the effects of natural disturbance patterns.
- Roads have significantly modified the aquatic and terrestrial resources in the Basin and continue to affect fish, wildlife, water quality, and stream and wetland processes. Roads are also important in many areas for providing public access and for accomplishing numerous management objectives, including restoration. Forest Service and BLM management plans need to provide direction for minimizing road related impacts to water quality, fisheries, and wildlife. The management plans also need to identify the road network that is needed for public and tribal needs, and land management access, which can be adequately maintained within agency budgets and capabilities.
- The rapid expansion of exotic species including noxious weeds in the Basin is one of the greatest threats to healthy native plant communities. Geographic expansion of exotic species such as cheat grass or noxious weed species such as yellowstar thistle or leafy spurge results in the decline of quality of aquatic-riparian and terrestrial habitats for wildlife, reduces forage for grazing animals,

reduces biological diversity and has other negative effects including impacts on American Indian tribe interests. Forest Service and BLM will work with other federal, tribal and state officials at appropriate scales to develop integrated weed management strategies to restore lands damaged by invasive species.

- A coordinated multi-scale and interagency approach to planning and decision-making to identify resource conditions, risks and opportunities not restricted by agency boundaries is important to providing critical context and focus for finer-scale analysis where appropriate, particularly as project actions are used to address broad scale issues (See Section V).

B. Basin Scale Terrestrial Species Habitat

The Forest Service and BLM have the responsibility to provide habitat for productive and diverse populations of terrestrial wildlife species thereby contributing to 1) diversity of plant and animal species, 2) recovery of listed species and 3) societal use of plant and animal populations, including wildlife viewing, hunting, harvest, and satisfaction of Tribal treaty rights. The terrestrial species habitat principles provides Basin scale guidance to ensure programmatic land and resource management plans can address the sustainable mix of terrestrial species habitats within the larger context of Basin scale science findings. To achieve that end, management plan direction needs to address maintenance and restoration of habitats that have declined substantially in geographic extent over time, multi-scale analyses, road management, exotic species (including noxious weeds) and monitoring and adaptive management. Road management related to exotic species is discussed under Landscape Dynamics (Section IV. A). Monitoring and adaptive management are discussed in a separate section (Section VI). The principles regarding habitat maintenance and restoration and multi-scale analyses are discussed below.

Terrestrial Source Habitats Maintenance and Restoration

The Science Assessment found that some specific habitats for wildlife species have declined substantially in geographic extent from historical to current. These are called “source” habitats (see *Source Habitats for Terrestrial Vertebrates*, Wisdom et al for the definition of source habitats). Management plans shall address ways to maintain and secure terrestrial habitats that are comparable to those classified by the science findings as “source” habitats that have declined substantially in geographic extent from the historical to the current period and habitats that have old-forest characteristics. Direction should address opportunities to re-pattern these habitats when and where necessary, maintain and guide expansion of the geographic extent and connectivity of source habitats that have declined where they can be sustained. Direction needs to address restoration of the important vegetation characteristics of these habitats (such as species composition, vegetation structure, snags or coarse woody debris), which various terrestrial species need to survive and reproduce. The following examples illustrate the types of habitats found to be in decline and thus of concern at the Basin scale.

- The grass, forbs and shrub communities in the Basin, particularly within the sagebrush and shrub steppe cover types, have been altered over time. The restoration of the sagebrush ground cover, and the restoration of shrub steppe ground cover (through removal of competing junipers), native plant species diversity, and site productivity are critical to the health of these rangeland systems.
- The extent of shade intolerant forest species (such as western white pine, ponderosa pine, western larch, whitebark pine and aspen) has decreased with associated decline in forest ecosystem processes and functions therefore increases in the extent of these species in pure stands and in mixed stands where ecologically appropriate is desirable.
- Old forest in the dry and moist forest potential vegetation groups is relatively scarce therefore management direction shall address steps appropriate to prevent the loss of this habitat and promote long-term sustainability of these existing stands. Restoration direction shall be developed to increase the geographic extent and connectivity of these vegetation groups addressing active and passive management options, where appropriate (such as harvest, thinning, prescribed fire and wildland fire for resource benefit).

Multi-scale analysis: Successful terrestrial species management can be achieved when set in context with information and analysis from multiple scales. Section V discusses how to achieve this context.

C. Aquatic and Riparian Habitat

Maintaining and restoring the health of watersheds, riparian, and aquatic resources on FS and BLM administered lands are necessary to sustain aquatic and terrestrial species and provide water of sufficient quality and quantity to support beneficial uses.

Elements of management direction necessary to achieve this intent include riparian conservation areas, management of landslide prone areas population strongholds, multi-scale analyses, restoration prioritization, monitoring and adaptive management. The following principles shall guide the development of management direction:

Riparian Conservation Areas: Riparian Conservation Area (RCA's) or appropriate direction, need to be identified in FS and BLM management plans based on the best available science and appropriate ecological and geomorphic criteria. Direction must include elements to:

- Achieve physical integrity of aquatic ecosystems;
- Provide an amount and distribution of woody debris sufficient to sustain physical

and biological complexity;

- Provide adequate summer and winter thermal regulation;
- Provide appropriate amounts and distributions of source habitats for riparian- or wetland-dependent species; and
- Restore or maintain water quality and hydrologic processes.
- Restore or maintain naturally functioning riparian vegetation communities.

Protection of Population Strongholds for Listed or Proposed Species and Narrow Endemics: A successful aquatic strategy shall be developed in cooperation with involved regulatory agencies, and needs to identify best habitats and most robust populations to use as focal points from which populations can expand, adjacent habitat can be rehabilitated, or the last refugia of a species can be conserved.

Units amending or revising Plans shall:

- Identify sub-watersheds that are population strongholds for listed or proposed species or local narrow endemic species.
- Provide management that recognizes that "conservation and restoration of small watersheds will ensure short-term persistence of important aquatic populations, while conservation and restoration of habitat networks throughout large basins will provide for long-term stability, productivity, and biological diversity.

The administrative unit plan needs to address the risks of uncharacteristic disturbances such as catastrophic wildfire, and evaluate the long and short-term risks under active and passive management approaches to aquatic and terrestrial resources.

Multi-scale analysis: Successful aquatic and riparian management can be achieved when set in context with information and analysis from multiple scales. Section V discusses how to achieve this context.

Restoration Priorities and Guidance: Restoration needs are diverse, intensive and widespread in the interior Columbia Basin. Unit restoration priorities must be considered against the broad scale and the aquatic, riparian and hydrologic restoration needs balanced with the restoration needs of other resources and other agencies and tribes. When amending or revising plans evaluate the restoration priorities identified in recovery plans, the Northwest Power Planning Council (NWPPC) sub-basin assessments and plans, subbasin reviews using the guide, Ecosystem Review At The Subbasin Scale: A Guide to Mid-Scale Inquiry (August 1999), the priorities identified by the Interagency Implementation Team (IIT) BO efforts, the high priority subbasins identified in the ICBEMP planning process, and watersheds identified to address water quality impaired (303(d)) stream segments. This should be validated and modified with local information. Guidance should be developed to integrate restoration objectives for aquatic habitat, riparian and hydrologic process, terrestrial wildlife, and landscape dynamics. The

administrative unit plan should consider the risks of uncharacteristic disturbances such as catastrophic wildfire versus the effects of active restoration designed to reduce those risks.

Monitoring/Adaptive Management: When amending or revising plans evaluate broader scale monitoring procedures and efforts (See Section VI). This should be supplemented at the unit level to address additional needs. Evaluate this information to adaptively change management direction. As needed identify opportunities for both formal research experimentation and management-developed field trials to accelerate learning where there are gaps in information. Amended or revised forest and resource management plans need to be compatible with the monitoring procedures and efforts identified by the IIT Biological Opinion efforts, ongoing efforts of the NWPPC, and State water quality efforts.

D. Social-Economics

The intent of the Basin's social-economic strategy is to design and implement restoration activities to promote workforce participation, supply demands for commodity products at various levels within the capacity of the ecosystem, encourage intergovernmental collaboration by addressing the following objectives:

- Improve integration of land and resource management with local community and tribal economic development strategies and capabilities.
- Improve quality, diversity and sustainability of natural resource related jobs and businesses.
- Support actions that further the goals of greater economic diversity, resilience and vitality for rural and tribal communities.
- Develop utilization of community capacity and infrastructure to the extent that is practicable to accomplish ecosystem health objectives.

E. Tribal Governments

The intent of the Basin's strategy for federal trust responsibility and tribal rights and interests is to address as fully as possible tribal concerns and interests and to reflect consideration of federal responsibilities both to tribes and American Indian people as expressed through treaty language, federal laws, executive orders, and federal court judgments. This consideration includes:

- During administrative unit plan revision, multiple scale analysis and project planning, consult with tribal governments and make adjustments where necessary to honor tribal rights and interests.
- Collaborate with affected federally recognized tribes to identify restoration

opportunities and possible cooperative restoration approaches or actions.

- Cooperate with tribal efforts regarding research and restoration of treaty/trust resources.
- Identify opportunities to restore and maintain native plant communities that are of interest to tribes.

V. Multi-Scale Analysis

Information developed through analysis at multiple scales provides additional context that is beneficial in understanding how plans and projects can be developed that meet multiple management objectives, including reducing risks to sensitive or unique resources. The amended or revised plan should be developed considering the context of the **ICBEMP Science**, planned or completed Sub-basin Reviews using the guide, *Ecosystem Review at the Sub-basin Scale: A Guide to Mid-Scale Inquiry (August 1999)*, available Northwest Power Planning Council (NWPPC) sub-basin assessments and plans, species recovery plans and conservation strategies, 303(d) watershed plans, or other broad and mid-scale information that is available.

Individual forest and resource plan analyses will describe how multi-scale analysis, based on the local situation, has been used in the amendment or revision process. Forest and resource plan analyses will also describe the rationale and context for how multi-scale analysis will be used for subsequent project level decisions.

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Administrative unit plans should be updated as new information becomes available (see Section VI).

Artificial administrative boundaries do not facilitate integration of management. Management direction shall address opportunities to cooperate with federal, tribal, state, local and other organizations at a multi-regional scale across multiple jurisdictional boundaries.

VI. Adaptive Management

The integrated scientific assessment of the Basin found that proactive approaches to ecosystem management within an adaptive Strategy would lead to higher ecological integrity and social and economic resiliency with the Basin. To respond to this finding, the intent of future Basin management is to use a continuing process of planning, implementing, monitoring, evaluating, and incorporating new knowledge into management strategies, for adjustment purposes, where:

- A planned direction is adapted to a site-specific situation, which is different than what was assumed during planning.
- An event changes the characteristics of the environment.
- New information accumulates over time through monitoring that indicates planned objectives are not being met and/or research indicates a need for change.

Monitoring and evaluation are an integral part of adaptive management and are key to achieving the short- and long-term intent of the Interior Columbia Basin Ecosystem Strategy. Amended and revised plans should evaluate and consider the monitoring procedures and products identified by the Interagency Implementation Team (IIT) Biological Opinion efforts, on-going efforts of the NWPPC, State water quality efforts and other broad scale monitoring programs. Specific project or administrative unit monitoring and evaluation efforts, independent of Basin-wide efforts, shall be used only when necessary to meet unique local needs. Local monitoring efforts shall avoid duplication with Basin efforts, and shall be compatible with Basin efforts whenever possible. Existing staffing and organizational structure shall generally accomplish monitoring tasks.