



Chapter 5 – Coordination and Monitoring

Chapter 5 describes the public participation and interagency coordination that has occurred during the preparation of this Draft Environmental Impact Statement. It also includes a list of staff involved in the Western Oregon Plan Revision. Finally, the chapter describes how the monitoring plan will be created for the Proposed Resource Management Plan and the role of adaptive management in the land use planning process.

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Introduction

An interdisciplinary team of resource specialists from the BLM Western Oregon districts and Oregon State Office, and contract personnel, prepared the Western Oregon plan revision. Initial preparation and planning for the plan revisions began in August 2003 when the Secretary of Interior, the American Forest Resource Council, and the Association of O&C Counties entered into the Settlement Agreement. Plan evaluations conducted in 2004 showed that the timber harvest decisions in the 1995 Oregon RMPs were not being met. The Notice of Intent, published in the Federal Register on September 7, 2005, initiated the public scoping process, and notified the public of the intent to revise the 1995 Oregon RMPs with a single Environmental Impact Statement. The Analysis of the Management Situation was published in October 2005. The Planning Criteria was published in February 2006. The planning process involved many steps with public participation, as well as consultation and coordination with many agencies and organizations thought-out the process.



Public Contact and Scoping

Public Contact and Scoping was conducted with direct mailings, public meetings, and internet web sites. The current mailing list includes approximately 1600 individuals and organizations. Public meetings were held in the all District Offices and at other locations across the planning area. District and State Office personnel met with many different partnerships including the Applegate Partnership, Soil and Water Conservation Districts and Counsels; Watershed Associations; Forest Protective Associations; Wildlife groups such as Ducks Unlimited and the Rocky Mountain Elk Foundation; the Native Plant Society; Environmental Education Groups; Recreation Groups such as horsemen, all terrain vehicle users, and trail associations; and environmental groups such as Audubon and the Nature Conservancy.

Some of the public contact and scoping activities that occurred just prior to and following the initiation of the planning process by the publication of the Notice of Intent in September 2005 include:

Newsletter #1 – Scoping – Introduction to WOPR – August 2005

Public Web Page Available – August 2005

County Fair Booths, August 2005

NOI and News Release – September 7, 2005

Scoping Meetings – September/October 2005

Scoping Key Contact Meetings – September/October 2005

State Director Editorial Boards – September/October 2005

Economic Profile System Workshops, September/November 2005

ACEC Nomination Process – Mailed to mailing list, October 5, 2005

Analysis of the Management Situation Printed – October 2005

Newsletter #2 - Summary of the Analysis of the Management Situation, December 2005

State Director and Governor sign WOPR MOU, December 1, 2005

Proposed Planning Criteria and State Director Guidance published February 2006

Scoping Report issued, February 2006

Newsletter #3 - Scoping Report, Planning Criteria, and ACEC Nominations, February 2006

Planning Criteria / Alternatives – Public Meetings, March 2006

Public Interest Environmental Law Conference – March 3-4, 2006



Newsletter #4 - Planning Criteria & Use of Science in Plan Revisions, April 2006

State-of-the-Science Forum -- Corvallis, June 15, 2006

Newsletter #5 – Summary of the Alternatives to be Analysed in the Environmental Impact Statement, October, 2006

Newsletter #6 – Pre Draft Environmental Impact Statement Update, April, 2007

Formal Cooperators

The Federal Land Policy and Management Act and the National Environmental Policy Act provide direction regarding coordination and cooperation with other agencies and governments. The Federal Land Policy and Management Act emphasizes the need to ensure coordination and consistency with the plans and policies of other relevant jurisdictions. The National Environmental Policy Act provides for what is essentially a cooperative relationship between a lead agency and cooperating agencies in the National Environmental Policy Act process.

Cooperating agency status provides a formal framework for governmental units—local, state, tribal, or Federal—to engage in active collaboration with a lead Federal agency to implement the requirements of the National Environmental Policy Act. Within the constraints of time and resources, cooperating agency staff members are encouraged to participate fully with BLM as members of the planning and environmental impact statement team.

The Council on Environmental Policy regulations specify that a Federal agency, state agency, local government, or tribal government may qualify as a cooperating agency because of “. . . jurisdiction by law or special expertise.”

1) Jurisdiction by law means “. . . agency authority to approve, veto, or finance all or part of the proposal.” (40 CFR 1508.15)

2) Special expertise means “. . . statutory responsibility, agency mission, or related program experience.” (40 CFR 1508.26)

Cooperators are important to successful revisions of BLM’s resource management plans, and therefore will be involved early and often in the planning process. They can provide expertise in much of the subject matter being analyzed. Some cooperators can provide advice based on experiences with similar planning efforts.

The Cooperators have met with the BLM managers and planning core team and throughout the planning process, including the development of issues, the planning criteria and the alternatives.



Federal Cooperators are:

United States Forest Service
National Oceanic and Atmospheric Administration – Fisheries
United States Fish and Wildlife Service
Environmental Protection Agency

For the State of Oregon, the Governor’s Office and ten state resource agencies are under a single Memorandum of Understanding.

The State of Oregon Cooperators are:

Oregon Governor’s Office
Oregon Department of Forestry (Lead agency for the state)
Oregon Department of Fish & Wildlife
Oregon Department of Environmental Quality
Oregon Department of Transportation
Oregon Department of Geology and Mineral Industries
Oregon Department of Agriculture
Oregon Department of Parks and Recreation
Oregon Department of State Lands
Oregon State Marine Board
Oregon Water Resources Department

Oregon Counties that are potentially affected by a BLM Planning process qualify for cooperator status based on the special expertise resulting from their knowledge of the local social, economic, and political conditions that exist within the planning area. Sixteen Oregon Counties are Cooperators. While each county has a separate Memorandum of Understanding with the BLM, the Association of O&C Counties represents them as a group.

Oregon County Cooperators are:

Clackamas Co.	Klamath Co.
Columbia Co.	Lane Co.
Coos Co.	Lincoln Co.
Curry Co.	Marion Co.
Douglas Co.	Polk Co.
Jackson Co.	Tillamook Co.
Josephine Co.	Washington Co.
Linn Co.	Yamhill Co.



Government-to-Government Coordination

There are seven recognized tribes within the planning area. All of the tribes have stated that they want government-to-government relationships rather than cooperator relationships. The Coquille Tribe is directly engaged in the planning process because, by law (25 U.S.C. §715c), the management of their tribal lands must be consistent with the management of the surrounding federal lands.

Recognized tribes within the planning area are:

Confederated Tribes of the Coos, Lower Umpqua, and Siuslaw Indians

Coquille Indian Tribe

Cow Creek Band of Umpqua Tribe of Indians

Confederated Tribes of Grand Ronde

Confederated Tribes of Siletz

Confederated Tribes of the Warm Springs Reservation

The Klamath Tribes



Consistency with Other Agency Plans and Programs

The BLM planning regulations require that resource management plans be “. . . consistent with officially approved or adopted resource-related plans and the policies and procedures contained therein, of other federal agencies, state and local governments, and Indian tribes, so long as the guidance and resource management plans are also consistent with the purposes, policies, and programs of federal laws and regulations applicable to public lands . . . “ (43 CFR 1610.3-2). The alternatives are intended to be consistent with other agencies plans. A consistency review will be completed for the proposed RMP and Final Environmental Impact Statement.

Federal Agencies

U.S. Department of Agriculture

- Forest Service
 - Forest-wide land use plans for adjacent national forests.
- Soil Conservation Service
 - Soil Surveys and Watershed Plans
- Animal and Plant Inspection Service
 - Pest Management including noxious weeds

U.S. Department of the Interior

- Fish and Wildlife Service
 - Pacific Bald Eagle Recovery Plan
 - Draft Northern Spotted Owl Recovery Plan
 - Draft Snowy Plover Recovery Plan
 - Marbled Murrelet Recovery Plan
 - Fish and Wildlife Service determination of critical habitat for northern spotted owl
- National Park Service
 - National rivers inventory and related review procedures

U.S. Department of Defense

- Army Corps of Engineers
 - Applicable project-specific recreation plans and navigable river (Sec. 404) permits



U.S. Department of Energy

- Bonneville Power Administration
 - Transmission and System Facilities Resource Program

U.S. Department of Commerce

- National Oceanic and Atmospheric Administration - Fisheries
- Anadromous Fish Recovery Plans and Critical Habitat

Northwest Power Planning Council

- Columbia River Basin, Fish and Wildlife Program, and subordinate species-specific strategies.

State Agencies

Department of Agriculture

- Weed Control Plans
- State-listed endangered plant species

Department of Environmental Quality

- Visibility Protection Plan and air quality standards
- Water Quality Management Plan
- Public use watersheds

Department of Fish and Wildlife

- Statutory Wildlife Policy
- Oregon Endangered Species Programs
- Sensitive Species Rule
- Non-game Wildlife Plan
- Big Game Population Management Objectives
- The Oregon Conservation Strategy
- Oregon Plan for Fish
 - Wild Fish Policy
 - Coho, Steelhead Trout Plans
- Basin Fish Management Plans



Department of Forestry

- Smoke Management Plan
- Oregon Forest Practices Act
- Forestry Program for Oregon

Water Resources Department

- River basin programs
- Water Resources Commission rules and statutes

Parks and Recreation Department

- State-wide Comprehensive Outdoor Recreation Plan
- State Parks and Recreation System Plan
- State Recreation Trails Plan
- State Historic Preservation Program
- Oregon Beach Law
- State-designated Scenic Waterways

Department of Transportation, Highway Division

- Oregon Highway Plan

Division of State Lands

- Removal-fill Law
- Natural Heritage Program

Oregon Department of Land Conservation and Development

State-wide land use planning goals of the Oregon Land Conservation and Development Commission will serve as the analytical foundation for documenting consistency with both state-wide planning goals, approved county and city-wide comprehensive plans, and the Oregon Coastal Management Program.



Oregon Coastal Management Program

According to 15 CFR 930, a Federal agency may use its NEPA documents as a vehicle for its consistency determination or negative determination. However, a Federal agency's federal consistency obligations under the Act are independent of those required under NEPA and are not necessarily fulfilled by submission of a NEPA document. The BLM will include its consistency determination or negative determination in the RMP/EIS and ensure that the NEPA document includes the information and adheres to timeframes required by the regulations.

Local Government

A brief narrative will be prepared addressing consistency with county and city comprehensive plans. The narrative will note any inconsistencies between RMP alternatives and county plans that might affect RMP implementation. Most counties in the planning area are participating as cooperators in the preparation of the plan to facilitate consistency.

Tribal Plans and Treaties

Separate narrative discussions of any relevant tribal plans, programs or policies, or treaty interests will be included after consulting with appropriate tribal leaders.

Section 7 Consultation under the Endangered Species Act

Introduction

The revision of the Resource Management Plans with management action for western Oregon BLM's resource programs constitutes a federal action that is subject to Endangered Species Act consultation.

Consulting on the RMP and Environmental Impact Statement provides for an evaluation of whether jeopardy, or destruction or adverse modification of critical habitat are likely to occur at the program scale, and will facilitate the consultation process for site-specific, project scale management actions. Subsequent consultation at the project level would provide an evaluation of specific effects of individual management actions to listed species and critical habitat. The site-specific, project level proposals would include a description of all management actions, conservation measures and project level best management practices.



Information relating to proposed and listed species and proposed and designated critical habitat (e.g., conclusions on how the alternatives affect listed species) has been incorporated into the Draft Environmental Impact Statement and will be used in the development of the Biological Assessment. The Federal agencies will convene an interagency team to conduct consultation.

Biological Assessment

The purpose of a Biological Assessment is to assess the effects of the implementation of the proposed RMP as described and analyzed in the Final Environmental Impact Statement.

The process used to develop the Biological Assessment will provide for early interagency coordination, provide the logic for conclusions on effects to species, and provide a mechanism for comment and input from the consulting agencies.

The final Biological Assessment will incorporate changes to the preferred alternative and comments received. A Biological Opinion from the consulting agencies will only be prepared after the final Biological Assessment is completed.

Preparers

Steering Committee

The eight-member Steering Committee is comprised of management staff from the BLM Oregon/Washington State Office in Portland and the six BLM districts represented in the Western Oregon Plan Revisions. This committee provides leadership, on behalf of the BLM west-side districts and the Oregon State Office, to the Resource Management Plan Revisions process.

Members of the Steering Committee are listed below:

- | | |
|---------------------|--|
| • Edward W. Shepard | Oregon/Washington State Director |
| • Mike Mottice | Deputy State Director, Division of Resources |
| • Aaron Horton | District Manager, Salem |
| • Ginnie Grilley | District Manager, Eugene |
| • Jay Carlson | District Manager, Roseburg |
| • Tim Reuwsaat | District Manager, Medford |
| • Shirley Gammon | District Manager, Lakeview |
| • Mark E. Johnson | District Manager, Coos Bay |



Key Project Staff

The following table lists the staff who prepared the Draft RMP/EIS and their specific area of responsibility, as well as the organization where each staff member works. Biographies for each staff member are included below the table.

Table 237. Key project staff for the Western Oregon Plan Revision

Key Staff and Assigned Responsibilities		
Responsibility	Name	Organization
Project Manager	Richard Prather	Oregon State Office BLM
Lead Planner	Philip Hall	Mason, Bruce and Girard Inc.
Planner	Anne Boeder	Oregon State Office BLM
Forester/Planner	Alan Wood	Oregon State Office BLM
Writer-Editor	Linda Chesnut	Mason, Bruce and Girard Inc.
GIS/Data Analysis	Duane Dippon	Oregon State Office BLM
Administrative Record Coordinator	Mary Ceciliani	Oregon State Office BLM
Logistics Coordinator	Jerry Hubbard	Oregon State Office BLM
Public Involvement Coordinator	Alan Hoffmeister	Oregon State Office BLM
Vegetation/Land Use Allocation Mapping	Chris Cadwell	Oregon State Office BLM
Forester/Planner	Paul Ausbeck	Roseburg BLM
Graphics Editor	Kristen Hiatt	Lakeview BLM
Cartographer	Paul Fyfield	Oregon State Office BLM
Cultural	Fran Philipek	Salem BLM
Ecology	Richard Hardt	Eugene BLM
Energy/Minerals	Patrick H. Geehan	Oregon State Office BLM
Energy/Minerals	Eric Hoffman	Oregon State Office BLM
Fire	John Dinwiddie	Medford BLM
Fisheries	Nikki Moore	Coos Bay BLM
Fisheries	Bill Hudson	Coos Bay BLM
Grazing	Kim Hackett	Medford BLM
Hydrology	Dan Carpenter	Coos Bay BLM
Recreation	Chris Church	Coos Bay BLM
Roads, Lands	John Styduhar	Oregon State Office BLM
Silviculture	Craig Kintop	Roseburg BLM
Socio-Economic	Mark Rasmussen	Mason, Bruce and Girard Inc.
Soils	Clif Fanning	Oregon State Office BLM
Special Areas	Lou Whiteaker	Klamath Falls BLM
Timber	Dave DeMoss	Eugene BLM
Vegetation/Botany	Doug Kendig	Medford BLM
Vegetation/Botany	Claire Hibler	Salem BLM
Wildlife	Chris Foster	Roseburg BLM



Interdisciplinary and EIS Team

Paul Ausbeck – *Planner/Forester*. Paul has a B.S. in Wood Technology & Utilization and Forest Sciences from the University of Illinois, and an M.S. in Forest Products from the University of Washington. He has 25 years of government service, including 8 years with the U.S. Forest Service on the Mount Baker-Snoqualmie National Forest. In his 17 years with the BLM in Oregon, Paul worked in timber sale planning, preparation and administration for 8 years and has been the Environmental Coordinator for the South River Field Office, Roseburg District, BLM since 1998.

Anne Boeder - *Planner*. Anne holds a B.A. in Cartography and Geography from the University of Wisconsin and a Master of Public Administration from the University of Utah. Anne has 23 years of government service, including 13 years with the U.S. Forest Service and 8 years with the BLM. She most recently served in various leadership roles on the interagency team for the 2004 Survey and Manage Environmental Impact Statement and Record of Decision. She has also worked on both the Roseburg and Coos Bay Districts.

Chris Cadwell - *Forester/Resource Analyst*. Chris served on the Forest Ecosystem Management Assessment Team in the estimation of probable sale quantities. He has coordinated probable sale quantities estimations and geographic information system analysis supporting development and implementation of the BLM resource management plans in western Oregon. He is co-author of the implementation guidance for the 15 percent standard and guideline. Chris served as co-lead in developing interagency vegetation standards and served on the team that developed interagency land allocation standards for the Northwest Forest Plan area. He participated in the Survey and Manage Final Supplemental Environmental Impact Statements in the assessment of timber effects and development of late-successional forest. He is the state data steward for the forest operations inventory, timber production capability classifications, and land use allocations for the BLM. Chris has 25 years experience with the BLM in western Oregon and currently is employed by the BLM Oregon/Washington State Office. He holds a B.S. in Forest Management from Humboldt State University.

Dan Carpenter – *Hydrologist*. Dan has a B.S. in Soil Science, from Washington State University. He has worked as a professional hydrologist, for the past 25 years (12 with the U.S. Forest Service and 13 with the BLM) on the Oregon Coast, Western Cascades and Great Basin in Nevada. His area of expertise includes watershed planning, modeling, and watershed restoration. His most recent assignments included working on an interagency Port-Orford-Cedar Environmental Impact Statement and environmental planning roles in the permitting of the Coos County Natural Gas Pipeline. Dan is currently employed as a hydrologist on the Coos Bay District.



Mary Ceciliani – *Program Assistant*. Beginning October 1, 2005 Mary assumed the position as coordinator for the Administrative Record of the Western Oregon Plan Revision of the Northwest Forest Plan. Previous positions included working at the Oregon Federal Executive Board, where she managed all the training, coordinated Health Fairs for agencies during the Open Season, and assisted in preparation for numerous committee meetings. Mary started her career in the BLM Division of Minerals. Her BLM employment totals approximately 23 years.

Linda Chesnut – Linda has a B.S. in Graphic Design from Oregon State University and over 12 years experience as a technical writer, editor, and illustrator. Linda has edited, proofread, and formatted various environmental, scientific, and grant proposal documents for the Environmental Protection Agency. With a strong familiarity with the standards of ANSI, ISO, SEMI, and Six Sigma that govern operations, repeatability, safety, and quality, she has developed content for the semiconductor and video security equipment industries. Linda has also developed templates and style guidelines, as well as led cross-functional teams to develop improved interdepartmental operating procedures. Linda's expertise is in creating user-friendly end-user, process, and marketing documentation. She is currently employed by a contractor to the BLM.

Chris Church – *Recreation, National Landscape Conservation System* – Chris has a B.S. in Wildlife and Fisheries Science from Texas A&M University. He has nine years of experience developing community-based conservation and recreation-related projects with the BLM, University of Oregon, and the U.S. Peace Corps. Chris currently works for the Coos Bay BLM District, managing the Areas of Critical Environmental Concern program.

David DeMoss – *Forester*. Dave is currently the district staff forester and district silviculturist for the Eugene BLM District. He holds a B.S. in Forestry from the University of California - Berkley, and has 29 years experience on the Eugene BLM District in timber sales and silviculture. He served as the silviculturist on the Late Successional Reserve # 267 Restoration Environmental Impact Statement and has experience in stand dynamics and modeling.

John Dinwiddie – *Fire/Fuels/Air Quality*. John's forestry education includes 2 years at Central Oregon Community College and completion of Technical Fire Management in 1989. John worked in private industry for 2 years and for the U.S. Forest Service for 5 years. His BLM employment totals 25 years.



Duane Dippon – *Geographic Information System/Data Team Leader*. Duane earned a B.S. and M.S. in Forestry and Forest Economics at Purdue University and a Ph.D. in Forest Management, with a Minor in Operations Research, from Oregon State University. He served as the Forest Ecosystem Management Assessment Team co-Geographic Information System /Data Team Leader, building the geospatial database covering over 24 million acres of federal lands across the Pacific Northwest and used by the Forest Ecosystem Management Assessment Team scientists in the development of the Northwest Forest Plan. Duane came to the Bureau in 1988 to integrate the use of geospatial data, modeling, and geographic information system technology in support of federal land planning. He has served as the chair or co-chair of the Interagency Resources Information Coordination Council from 1994-98 and 2003-04 and serves on the Oregon Geographic Information Council. Prior to joining the BLM, Duane was an Associate Professor at the University of Florida teaching Forest Management, Forest Economics and Quantitative Methods in Natural Resources Management.

Clif Fanning – *Soil Scientist*. Clif holds a B.S. in Soil Science from California Polytechnic State University. He has 32 years of federal service and has been working with the BLM since 1977. Clif previously worked in Dillon and Butte, Montana; and in Cheyenne, Wyoming. He has served on numerous planning efforts over the years and has been the Oregon/Washington state soil scientist since 1991.

Paul Fyfield – *Cartographer*. Paul has been a Cartographer in the BLM Oregon State Office in Portland since 2001. He earned a Master's degree in Geography from Portland State University in 2003.

Chris Foster – *Wildlife Biologist*. Chris is currently the District Wildlife Biologist for the Roseburg BLM District. He holds a B.S. in Forest and Wildlife Management from the University of Maine, and an M.S. in Wildlife Management from West Virginia University. Chris has more than 15 years experience working for the U.S. Forest Service and the BLM. Chris has held positions as a Wildlife Biologist and as a forester specializing in watershed analysis and planning.

Patrick H. Geehan- *Mineral Economist*. Patrick is the Chief, Minerals Section in the Oregon/Washington State Office. He has a B.A. in Economics from The Colorado College and a M.S. in Mineral Economics from the Colorado School of Mines. He has 33 years experience with BLM and has been coal leasing program leader, Deputy State Director for Minerals; and Chief, Branch of Physical Sciences. He has managed special projects including the Interior Columbia Basin Ecosystem Management Project and the Umpqua Land Exchange Project.

Kimberly Hackett – *Rangeland Management Specialist*. Kimberly Hackett has a B.S. in Wildlife Science with a Range Science Emphasis from New Mexico State University. She has worked for the BLM for 17 years. Kimberly is currently the Medford BLM District Rangeland Management Specialist. She previously worked as a Rangeland Management Specialist for 11 years in Idaho and 5 years in Nevada.



Phil Hall – *Planner*. Phil holds a B.S. in Forestry and a B.S. in Conservation from North Carolina State University. Phil served on the interdisciplinary team for the Northwest Forest Plan Supplemental Environmental Impact Statement (1994) and was a lead planner in developing the western Oregon resource management plans tiered to the Northwest Forest Plan. He has served on regional teams for the development of watershed analysis guides and monitoring and research. Phil has provided national level training for the National Environmental Policy Act and Resource Management Planning. Phil has a broad understanding and familiarity of BLM programs and plans, including the Northwest Forest Plan and environmental impact statements. He has 33 years of federal service, including 30 years with the BLM (1976-2006) on two BLM districts and in several resource areas. He served on special assignments to BLM’s national office in Washington, DC and to other BLM districts in the western United States. He is now employed by a contractor to the BLM.

Richard Hardt – *Ecologist*. Richard has a B.A. in Natural Sciences from John Hopkins University, an M.L.A in Landscape Architecture from Harvard University, and a Ph.D. in Forest Resources from the University of Georgia. He has 11 years of experience working for the BLM and is currently employed at the Eugene BLM District. Richard’s expertise is in forest ecology, planning, and the National Environmental Polity Act.

Kristen Hiatt- *Graphics Editor*. Kristen has a B.S. in Environmental Science from Oregon Institute of Technology. She is currently pursuing a M.S. in Environmental Policy and Management with an emphasis in Natural Resource Management from the University of Denver. Kristen has been with the BLM for two years as a STEP student and currently works as a wildlife biological technician on the Klamath Falls Resource Area.

Claire Hibler – *Botanist*. Claire has served as the Lead Botanist for the Salem BLM District since 2001. She holds a B.S. in Forest Management from Oregon State University and a B.A in General Biology from Humboldt State University. Claire was a founding member of and participates on the steering committee for the Northwest Oregon Invasive Weed Management Partnership, which spans the northwest corner of Oregon and part of southwest Washington. She has worked in the Salem BLM District for more than 15 years in the botany and invasive plant programs, at both the resource area and district level.

Eric Hoffman - *Mining Engineer*: Eric holds a B.S. in Geology from Washington State University with additional hours in environmental geology and engineering from Eastern Washington State University and George Washington University in D.C.. He has completed 37 years of government service, including 8 years with the former U.S. Bureau of Mines in Washington state and at headquarters in Washington, D.C.; 9 years with the U.S. Geological Survey at Grand Junction, Colorado; and 20 years with BLM in Oregon/Washington. Eric’s career has encompassed work on mineral resource evaluation, mined land reclamation, and Federal/Indian mineral program management. Eric is currently serving as the Acting Section Chief for the OR/WA State Office Minerals Section.



R. Alan Hoffmeister - *Public Involvement Coordinator*. Alan is currently assigned to the planning staff to coordinate and support all public involvement activities for the plan revision effort. He holds a B.S. in Forest Science from the University of Illinois. He began his government career with the U.S. Forest Service and Soil Conservation Service and has worked for the BLM as a public affairs specialist for 27 years in California, New Mexico, and Oregon. Most recently he served as the Public Affairs Officer for the BLM's Coos Bay District.

Jerry Hubbard – *Logistics Coordinator*. Jerry has a B.S. in Forest Sciences from the University of Washington and an M.S. in forestry (Silviculture) from Pennsylvania State University. Jerry has held a variety of positions in BLM in Oregon: Forester on the Roseburg District, Soils/Watershed Specialist on the Medford District, Public Affairs Specialist on the Vale District, and Management Analyst in the Oregon State Office. Additionally, as part of a management development curriculum, he produced a regional economic analysis of western Oregon's timber and recreation economies for the period 1972-1986.

William F. Hudson – *Fishery Biologist*. Bill has a B.S. in Wildlife Management and a M.S. in Biology (Fisheries) from Tennessee Technological University. He has worked for the BLM for 25 years in the Coos Bay District. Early in his career he worked as a resource area biologist, assisting in fisheries and wildlife management. Currently, Bill is the Coos Bay BLM District Fisheries Biologist and has spent the last 7 years working on various Endangered Species Act consultations with National Oceanic and Atmospheric Administration-Fisheries, including local project consultations and regional consultations at the plan level for the Interior Columbia Basin and the Northwest Forest Plan. Recently, Bill chaired an interstate and interagency team that developed an Analytical Process for Developing Biological Assessments for Federal Actions Affecting Fish within the Northwest Forest Plan Area.

Douglas Kendig – *Botanist/District Native Plant Coordinator*. Doug has 21 years experience with the BLM and 3 years with the Peace Corps in Guatemala. He served as area and district botanist and resource specialist for the last 11 years, representing botany, native plants and restoration. Doug has been a resource area team member on numerous environmental assessments and watershed analysis. He holds a B.A. in International Studies from Southern Oregon University and graduate class work in Botany from Southern Oregon University and the University of Washington.

Craig Kintop – *Forester*. Craig is currently the District Silviculturist for the Roseburg BLM District. He holds a B.S. in Forest Resources Management from the University of Minnesota. Craig has more than 29 years experience working for the U.S. Forest Service and the BLM. He was a member of the silviculture/inventory team that developed silvicultural prescriptions and growth and yield information for the 1995 resource management plans.



Nikki M. Moore – *Fishery Biologist*. Nikki is currently a fisheries biologist for the Coos Bay District BLM. She holds a B.S. in Fisheries Biology from Oregon State University. She has worked for the BLM and U.S. Forest Service for about 8 years. Nikki also worked for the National Oceanic and Atmospheric Administration-Fisheries where she completed Endangered Species Act biological opinions for local and regional projects.

Frances Philipek – *Archeologist*. Fran holds a B.S. and M.A. in Anthropology from Portland State University. Fran has 28 years of government service, including 7 years with the U.S. Forest Service in Lakeview and Klamath Falls and 21 years with BLM in Idaho, North Dakota, and Oregon. Fran currently is the District Archeologist for the Salem BLM District. She is the state-wide lead for the Heritage Education and project archeology programs.

Dick Prather – *Project Manager*. Dick is a graduate of the Northern Arizona University School of Forestry in Flagstaff, Arizona. He served as team leader for the Final Supplemental Environmental Impact Statement for Survey and Manage in 2001 and 2004. He is a 34-year veteran of the BLM. Prior to his assignments on EIS teams, he was Field Manager in the Salem District for 18 years. He previously worked in Coeur d'Alene, Idaho and Coos Bay, Oregon as a forester.

Mark Rasmussen – *Economist*. Mark has an MS in Forest Economics and a BS in Environmental Studies. Since 1997, he has been a principal at Mason, Bruce, and Girard where he leads the Forest Economics and Planning Group. For 25 years, Mark's work has focused on land management planning for federal, state, private, and tribal land owners including economic analysis of land management policy.

John Styduhar – *Senior Realty Specialist*. John has a B.S. in Forestry Science from Penn State University. He has worked for the BLM as a forester, area engineer, and realty specialist for 27 years: 10 years in timber sale planning and administration, 5 years in forest road engineering and transportation management, and 12 years as senior realty specialist at the BLM Oregon State Office specializing in public land law administration and O&C lands.

Lou Whiteaker - *Botanist*. Lou is the resource area botanist in the BLM Klamath Falls Field Office. He holds a B.S. in Finance from the University of Southern California and an M.S. in Botanical Sciences from the University of Hawaii. Lou has worked in resource management and plant ecology research in Hawaii, Florida, and Oregon. His 18 years of federal government employment include 15 years with BLM.

Alan Wood – *Planner/Forester*. Alan holds a B.S. in Forestry from the University of Minnesota. He is a 30-year veteran of the BLM and has worked in both Idaho and Oregon. Alan was a forester and Operations Chief in Salmon, Idaho, and worked extensively on fire and fuels issues. He served for 10 years as a Field Manager in the Roseburg BLM District, and most recently as a forester in the BLM Oregon State Office.



Science Team

A list of the members of the Science Team, along with their credentials, is provided below.

Sarah Crim – *Forest Economist/Analyst, U. S. Forest Service*

Area of Science Review - Timber harvest scheduling, growth and yield modeling.

Sarah works in the U.S. Forest Service Regional Office in Portland. She has a Ph.D. in Forest Management from the Department of Forestry at Colorado State University and an extensive background in timber harvest scheduling models. She provided guidance for Forest Service planning teams on development and use of timber harvest scheduling models during the forest planning effort prior to the Northwest Forest Plan, and helped develop the timber harvest estimates for National Forests as part of the FEMAT team. Sarah works extensively with National Forests on the NEPA process associated with timber sales, as well as on any litigation that arises.

Doug Drake - *Aquatic Biologist, Oregon Department of Environmental Quality*

Area of Science Review - Water quality and monitoring

Doug has worked for the last 18 years in the Watershed Assessment Section of the Laboratory Division at the Oregon Department of Environmental Quality. His most recent projects relevant to the BLM Science Team include: developing RIVPACS predictive model for state-wide stream assessment using macroinvertebrates; developing a draft wadeable stream sediment benchmark for use in Impaired Waters report (303-d listing process); team leader for data analysis and stressor tool development using probabilistic and targeted sampling approaches; serving on Oregon DEQ Numeric Biological Criteria Technical Advisory Committee; and serving on EPA National Sediment Criteria Workgroup.

Joan Hagar – *Wildlife Ecologist, U.S. Geological Survey*

Area of Science Review: Wildlife ecology

Joan works at the USGS Forest and Rangeland Ecosystem Science Center in

Corvallis, Oregon. She has an M.S. and a Ph.D. in Forest Ecology from the Department of Forest Science at Oregon State University. In doing the research for both of these degrees, Joan investigated wildlife-habitat relationships in managed forests, specifically addressing the response of songbirds and their food resources to commercial thinning and partial harvesting in western Oregon. In addition to the research for academic degrees, Joan has worked extensively for the past 15 years with forest managers, silviculturists, and biologists on research projects and problem analyses in Pacific Northwest forests.



Chris Jordan - *Research Biologist, National Marine Fisheries Service*

Area of Science Review: Fish biology

Chris is stationed at the Northwest Fisheries Science Center. His current work primarily involves design and implementation of large-scale monitoring programs to assess anadromous salmonid freshwater habitat and population status, as well as the watershed-scale effect of management actions on salmonid habitat and population processes. The research component of these projects is the development of novel monitoring methods, including sampling designs, metrics and indicators, to address specific data and information needs for managing ESA-listed Pacific Northwest salmonid populations. To support the broad-scale application of monitoring research and the analysis of monitoring data, Chris is developing a landscape classification scheme for watersheds of the Pacific Northwest. The scheme is based on immutable geomorphic and climatic characteristics, as well as anthropogenic impacts. And finally, to test the relevance of current and future monitoring programs, he is collaborating with co-manager groups to evaluate ongoing status and effectiveness monitoring programs based on management decisions these programs support.

Tom Spies - *Research Forester, U.S. Forest Service.*

Area of Science Review: Forest ecology and landscape ecology.

Tom works for the Pacific Northwest Research Station, based in Corvallis, Oregon, and is also professor (courtesy) in the Department of Forest Science, Oregon State University. Since completing his Ph.D. at the University of Michigan in 1983, he has worked in western Oregon and Washington on a wide variety of forest ecology issues, including characterization and definition of old-growth forests. He was a participant in FEMAT and is currently co-team leader of CLAMS (Coastal Landscape Analysis and Modeling Study). His active research includes integrated regional models for ecological and socio-economic assessments; indicators of biological diversity in forest landscapes; old-growth characteristics and conservation; riparian forest ecology; gap dynamics; and applications of remote sensing to ecosystem management.



Fred Swanson – *Research Geologist, U.S. Forest Service.*

Area of Science Review: Geology, landscape ecology, and watershed processes.

Fred is assigned to the Pacific Northwest Research Station, based in Corvallis, Oregon, and is also professor (affiliate) in the Departments of Geosciences and Forest Science, Oregon State University. Since completing his Ph.D. in Geology at the University of Oregon in 1972, he has worked at the H.J. Andrews Experimental Forest and elsewhere in the Northwest on a wide variety of watershed and ecosystem topics. His main focus has been with natural and management disturbance processes in forest and stream systems. Experiences relevant to participation on the BLM Science Team include: long-term, close working relationship with federal forest managers, most notably through the Central Cascades Adaptive Management Area; participant in FEMAT; co-organizer and co-editor of a conference and book on bioregional assessments (Island Press 1999) and deep involvement in interdisciplinary ecosystem research over more than three decades.

John Cissel – *Western Oregon BLM Science Coordinator*

Role on Science Team - Team Leader, Science Coordination

John works for the BLM-Oregon State Office and also holds an affiliate faculty appointment in the Department of Forest Science at Oregon State University. He is responsible for connecting the western Oregon BLM districts to science by integrating management needs into research projects, developing management studies to address management questions, sharing recent science findings with managers, and by developing and demonstrating applications of new science concepts and findings. John has worked in a science-management interface role for the last 15 years, and has particular experience with landscape analysis and planning. John is responsible for science support to the western Oregon plan revision.



Vegetation Modeling Team Members

In addition there were numerous individuals working on teams to provide the data, modeling and geographic information that support the analysis in the document. Those individuals are:

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Monitoring

Monitoring provides information about whether management actions were implemented as directed in the resource management plan, and examines their effectiveness in achieving desired outcomes. Monitoring can also determine whether the analysis contained in the Environmental Impact Statement was accurate.

The monitoring plan for the alternative which is selected in the record of decision would examine questions surrounding the implementation, effectiveness and validity of plan objectives, land use allocations and management actions. These items vary by alternative and therefore, a monitoring plan with specific management questions would not be of great utility at this stage of the planning process. A detailed proposed monitoring strategy is provided here for public comment. An even more detailed monitoring plan will be provided for the Proposed Resource Management Plans in the final environmental impact statement. The monitoring plan for each of the Approved Resource Management Plans will be published in the records of decision for this plan revision.

Monitoring for the resource management plans would consist of three parts:

1. Implementation monitoring to determine if management actions follow RMP direction.
2. Effectiveness monitoring to determine if RMP objectives or desired outcomes are being met or are likely to be met.
3. Validation monitoring to determine if RMP objectives and management actions are based on correct and accurate assumptions and to validate conceptual models.

Monitoring of the resource management plans would be carefully and reasonably designed to avoid prohibitive costs while effectively answering implementation, effectiveness and validation questions. It would not be necessary or desirable to monitor every management action.

Components of the monitoring plans would include:

- Key monitoring questions
- Standards
- Methods
- Sample size and intervals

Implementation monitoring would constitute most of the monitoring effort. Implementation monitoring ensures compliance with the plan decisions.

Effectiveness monitoring would be another component of the monitoring plans. Many of the relationships and outcomes of natural resource management are well enough established as to not require effectiveness monitoring for all management actions. For instance, if a stream is fully shaded by vegetation in a riparian management area (implementation monitoring), it is not necessary to also apply effectiveness monitoring to determine if BLM actions on that stream are contributing to the maintenance of stream temperature (effectiveness monitoring). In addition, validation monitoring would not be necessary to address the underlying assumption



that salmonids require stream temperatures within a certain range. The relationships of shade to stream temperature and salmonids to stream temperature are well enough established as to not require effectiveness and validation monitoring. In addition, certain objectives do not lend themselves to effectiveness monitoring because they will be achieved only after many years or decades, such as the thinning of forest stands to accelerate the achievement of structurally complex characteristics. Such an objective would not be achieved within the life of the plan.

The monitoring plan would establish priorities for monitoring activities. The priority for monitoring would be those actions which are related closely to the purpose and need and issues described in chapter 1. The following are situations or circumstances that will warrant high priority for monitoring:

- Highly sensitive or important resource values (often related to the purpose and need and issues of this plan revision)
- Actions involving new or untested procedures or methods, or involving a high degree of uncertainty regarding the effects of the procedure or method.
- Actions of high public interest or controversy.
- Actions of high management interest

Key monitoring questions would be employed to avoid unnecessary detail and unacceptable costs. A key monitoring question is a question of high management interest. Most key questions would be designed to provide information as to whether management direction has been followed while some key questions would provide information as to whether objectives have been met or are likely to be met. The key questions would be accompanied by standards or thresholds by which information would be evaluated.

Sampling would also be employed to avoid unnecessary detail and unacceptable costs. Each key question would be accompanied by a sample size and interval for the monitoring item. Sampling would not necessarily be random or statistically based. Sampling would target projects of high management or public interest. Sampling would also target certain projects and areas because they would allow multiple monitoring questions to be addressed and therefore would be cost efficient to monitor. Sampling would not be specifically designed to distribute monitoring evenly among field offices.

The level and intensity of implementation monitoring (sample size and interval) would vary depending on the sensitivity and scope of the management action, resource or area being monitored. In cases where implementation or effectiveness monitoring indicates very high compliance with the plan, the monitoring interval and sample size would be adjusted for cost and time efficiency.

All applicable implementation monitoring questions would be addressed on each BLM district. Effectiveness and validation monitoring would not be duplicated on each district where the results of such monitoring can be applied to similar situations on other districts. For instance, if management action directs that large wood be placed in streams of high intrinsic potential, implementation monitoring to measure plan compliance would occur on each district which had that management action in its resource management plan. If it were determined that



effectiveness monitoring was needed to address the question of whether or not large wood creates fish habitat, such monitoring of general principles or relationships would not need to be duplicated on every district.

The monitoring plan would be evaluated at each monitoring interval to ascertain if monitoring questions, standards, methods, sample size, and intervals need to be changed. As a result of experience, where necessary, key monitoring questions, standards, methods, sample size and intervals would be:

- Modified
- Discontinued
- Added

Such changes to the monitoring plan would be accomplished through plan maintenance.

Monitoring would occur at multiple administrative levels and at multiple spatial and temporal scales.

Monitoring of the western Oregon resource management plans would be done in a consistent and coordinated manner to allow district information to be compiled and considered at the scale of the entire western Oregon planning area. Coordination and consistency would be the joint responsibility of each district and the Oregon State Office. Each district would be responsible for the collection, compilation, and analysis of most of the monitoring information. The BLM Oregon State Office would be responsible for coordinating or conducting certain effectiveness and validation monitoring.

Monitoring results would be reported periodically in a Program Summary and Monitoring Report. The Program Summary and Monitoring Report would specifically address the questions posed in the monitoring plan. It would report, track and assess the progress of plan implementation; state the findings made through monitoring; and serve as a report to managers and the public.



Adaptive Management

Adaptive management is not a stand alone program or process. Adaptive management for the western Oregon resource management plans would be integrated into NEPA and land use planning processes (see Figure 289). Identified outcomes for the resource management plan are described in the plan's goals and objectives statements. Resource management plan monitoring would determine if the goals and objectives are being met or are likely to be met.

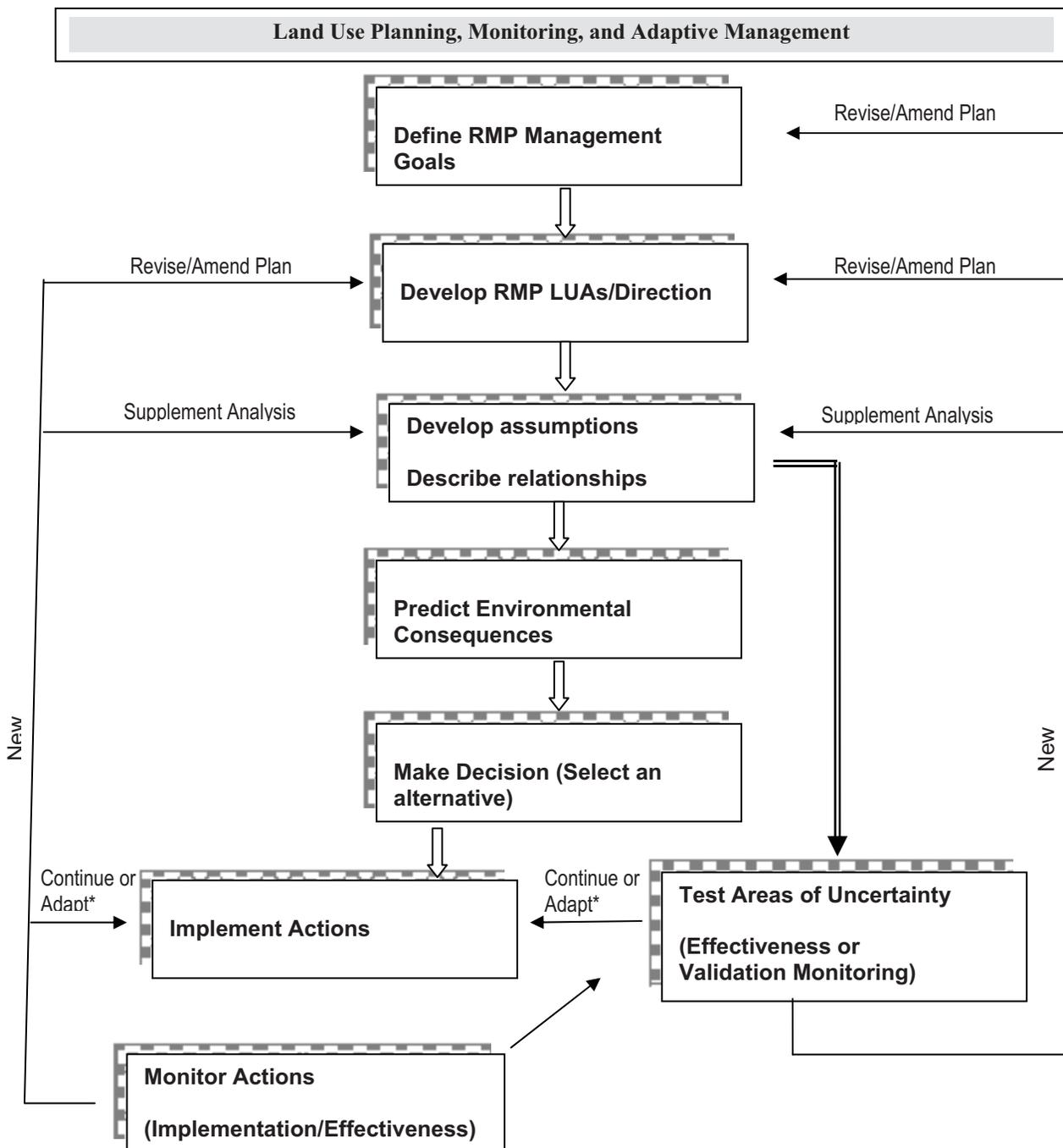
In addition, new information or changed circumstances would be evaluated as to whether changes in resource management plan decisions or supporting NEPA analyses were warranted. Adaptive management tools and procedures would be used to make changes in the plan in response to monitoring information, new information or changed circumstances include plan maintenance, plan evaluations, plan amendments and plan revisions. In addition to these planning instruments, NEPA documentation may be necessary. NEPA procedures relevant to adaptive management would include the use of categorical exclusions, determination of NEPA adequacy reviews, environmental assessments, and environmental impact statements.

In some instances, management direction contained in the alternatives provides for a range of activities or resource uses. In these cases, levels of activities or resource uses would vary within the range prescribed by the management direction without the use of planning steps or NEPA analyses. The level of activities would be adapted within the range given by management direction, depending on variation in resource needs or organizational capability.

In addition to the constraints or latitude provided by management direction for the alternatives, the ability to adapt or change management without the use of planning steps or NEPA analyses would also be restricted by analytical assumptions contained in the environmental impact statement. The conclusions of environmental consequences are derived from analytical assumptions. Analytical assumptions include such things as levels or methods of activities, number of acres treated, and miles of roads maintained. If, as a result of the need for adaptive management, actual implementation of the resource management plan would so alter the methods or levels of activities such that the environmental consequences might be substantively different than those anticipated in the environmental impact statement, then formal planning steps and NEPA procedures could be required. The determination as to when formal planning steps and NEPA procedures would be required would be made through the plan evaluation process. Plan evaluations could consist of an overall resource management plan evaluation or they could consist of a narrowly focused evaluation on a specific aspect of the resource management plan.



Figure 289. Land Use Planning, Monitoring, and Adaptive Management.



* When monitoring shows the plan is being implemented as written, continue to implement. Where management direction specifically describes the conditions where adaptation is allowable without supplementing/revising/amending plan then adapt actions.

Additionally, monitoring plan should be informed by areas of uncertainty and sensitivity of assumptions and relationships.