

Implementing Sustainable Forest Management in the Inland Northwest

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A Guide to Research Information on the Internet

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Jay O'Laughlin and Philip S. Cook

with

Jo Ellen Force, Perry Brown, and Charles E. Keegan

Forestry Research Update

Inland Northwest Foresters Forum:
Training, Education and Information for Professional Foresters

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Implementing Sustainable Forest Management in the Inland Northwest:

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Preface

In October 2000 I was invited to observe a preliminary evaluation for third-party certification of LP Corporation's timberlands in northern Idaho. The exercise was conducted by the Izaak Walton League for the Sustainable Forestry Initiative (SFI), the forest certification program of the American Forest & Paper Association. Something we discussed during the tour stimulated the idea for this document.

Continual improvement of forestry practices is the underlying premise of the SFI program. The first stated objective of the SFI program is that organizations are to "use the best scientific information available to implement sustainable forestry." According to LP's timberland manager, the most problematic part of the third-party certification process was making sure foresters had access to current information, and providing verifiable evidence of such to certifiers.

The manager asked for our ideas. One was to create a "silviculture cooperative" along the lines of the Land Grant University programs in the region for tree improvement, tree nutrition, and forest growth & yield. Another was to have more company foresters be active members of the Society of American Foresters. Although SAF membership is not the only way foresters can demonstrate they are keeping abreast of current knowledge, it is likely the single best approach. Perhaps one day certifiers will ask, as evaluation criteria, how many of your organization's foresters are SAF members? How many are SAF Certified Foresters? How many Continuing Forestry Education (CFE) certificates have your foresters earned in the last five years? A section herein highlights these SAF programs.

The SFI Implementation Committee in Idaho has developed a new approach. The "Inland Northwest Foresters Forum: Training, Education and Information for Professional Foresters" includes as one of its three objectives providing verifiable and auditable training for forestry professionals implementing the SFI Program. One of the sessions during the Forum is "Forestry Research Update." I accepted the challenge of organizing it, and this document is a result. Included herein is a review of ongoing Land Grant University activities in the region, and how working professionals can access the information created there and in other governmental and private research organizations. The bulk of this document provides that information.

At the universities we know the value of higher education is not so much in learning a profession or vocation as in learning how to learn. Knowledge is continually being revised through scientific research. A diploma or certificate is evidence that an individual once was exposed to a body of knowledge. Current information is the best available. Staying current takes some work as information explodes.

Continuing education forums such as this is one way to keep up to date with new information. Another way is to create a learning organization, to institutionalize a systematic approach for increasing the knowledge base available to employees. This document can help you get started.

– Jay O'Laughlin

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Part I. Introduction

The purposes of this document are threefold: 1) define the broad scope of scientific information necessary for sustainable forest management, 2) identify the sources of such information available to forest resource managers, and 3) describe how some of the information may be readily accessed via the Internet. We confined the scope of inquiry to the Inland Northwest region, which we define as the entire state of Idaho, the western portion of Montana, and the portions of Oregon and Washington east of the Cascade Range.

At the outset we define sustainable forest management by defining its dimensions, outline the types of information needed to develop and implement sustainable forest management, and identify readily accessible sources of that information (Part II). Much of the information is developed from knowledge created by research programs of the Land Grant Universities in the region (Part III). State and federal agencies also produce a wealth of information relevant to sustainable forest management (Parts IV and V). We feature the programs and publications of the Society of American Foresters, in part because sustainability is a core value of the forestry profession (Part VI). Forest products industry trade associations operate the Sustainable Forestry Initiative (SFI) Program and also provide scientific information to their members (Part VII). We provide information about accessing research journals and searchable databases of forestry research articles (Part VIII). A variety of publications from forestry organizations other than those above are also identified (Part IX).

In conclusion, we offer some suggestions for firm-level organizations that may wish to systematically or programatically increase the science information base available to their forest resource managers (Part X). Because information related to sustainable forest management is increasing exponentially, some such approach to coping with the information explosion may be, or it may become, a requirement for firms wishing to have their forest management operations evaluated by independent third-party forest certification programs. Whether or not certification is involved, forest resource managers desiring to practice sustainable forest management need to maintain an adequate and current information base to meet changing expectations of landowners and society.

Part II. Sustainable Forest Management

With varying degrees of success, people have been trying to sustain the yield of timber and wood products from the world's forests for many centuries. Today, though, with more than 6 billion people in the world and the promise of at least half again as many more in the next 50 years, concerns about the sustainability of the world's forest resources has not only heightened but also expanded to include the full range of several dozen different forest values. These concerns now fall under the general topic of sustainable forest management, which we will label SFM for short.

II.A. Defining Sustainable Forest Management

There are many definitions of sustainable forest management. Most everyone agrees that a good definition addresses the general concept of sustainable development, which is meeting the needs of people today without diminishing the opportunities for future generations. There is general

agreement that sustainability must simultaneously address three dimensions: ecology, economy, and society.

The following definition of SFM is widely accepted:

Sustainable forest management is ecologically sound, economically viable, and socially desirable.

II.B. Topical Information Outline with Reference to Sources

The three dimensions of sustainable forest management in the above definition provide a useful 3-part outline for organizing the information needed for implementing SFM. The outline below expands on this further by identifying specific topics relevant to SFM. All topics are associated with a particular objective of the Sustainable Forestry Initiative (SFI) Program. Information sources are then referenced to sections of this document by Roman numeral outline number reference. Relevant sources of information and research publications are identified. We tried to locate on the Internet relevant research materials in the topical outline categories below, but have obviously only scratched the surface.

Today many research publications are available on websites and many, many more are referenced in bibliographic databases of research articles compiled from scientific journals for which subscriptions are necessary. The publications we found available on the Internet and listed herein range from one-page Extension bulletins from land grant universities to reports of several hundred pages from government agencies and university research programs. One should not expect to find the highest quality scientific articles on the Internet, as they are in journals published by professional organizations that depend on paid subscriptions. Many of the publications we did locate are in portable document file (PDF) format, which facilitates rapid downloading of documents to your computer for reading and printing. The PDF format requires having Acrobat Reader on your computer. Downloads are free [online]: <<http://www.adobe.com/products/acrobat/readstep.html>>.

Although the URLs (uniform resource locators, or website addresses) for most of the publications we found on the Internet are provided herein, it can be faster to use a search engine to locate sites of interest on the Internet. For example, it may be quicker to call up your favorite search engine, type in what you are searching for and click on “search” than it is to call up your bookmarks and try to remember where you put what you are revisiting, or if you even have bookmarked it. At the moment <<http://www.google.com/>> offers severable desirable features for locating resources on the Internet, including speed, comprehensive replies, and lack of distracting banner advertisements. For example, enter the keywords “Idaho forest water quality,” click on “search” and 0.24 seconds later you have a list of 53,000 web pages, all of them with those four words appearing in the text. That may seem overwhelming, but somehow the most relevant web pages appear toward the top of the list. You will not, however, gain access to the best quality sources of scientific information merely by searching for information on the Internet. You will have to acquire articles from scientific journals.

For all the topics below, we suggest visiting the website for the Land Grant University forestry department in your state (IIIA2, IIIB2, IIIC3, or IIID1) and searching faculty resumes.

II.B.1. Ecological/Environmental Soundness

Forest Land Classification and Timber Inventory System (SFI Objective #1)

See VIC2

Forest Growth & Yield Modeling (SFI Objective #1)

See IIIB2, IIIC4, VC2

Sustainable Timber Harvest Level Determination (SFI Objective #1)

Reforestation Methods (SFI Objective #2)

See IIIA1, IIIA6, IIIC3, VA.

Genetic Tree Improvement (SFI Objective #2)

See IIIA1, IIIA3, IIIA7.

Soil Productivity (SFI Objective #2)

See IIIA4, IIIA7, IIIC4.

Chemical Use (SFI Objective #2)

Water Quality (SFI Objective #3)

See IIIA7, IIIB7, IIIC1, IIIC4, VB, VIC2, VIC4.

Wildlife Habitat (SFI Objective #4)

See IIIA7, IIIB7, IIIC4, IIID2, VIC2.

Aquatic Fauna (Fish) Habitat (SFI Objective #4)

See IVD, VIC2.

Riparian Area Function (SFI Objective #4)

See IIIA7, IIIB7, VIC2, VIC5.

Biological Diversity Conservation (SFI Objective #4)

See VIC3.

Rare and Unique Biological Communities (SFI Objective #4)

Ecosystem Function and Landscape-level Planning (SFI Objective #4)

See IIIB4, VA, VIC3.

Clearcut Harvesting (SFI Objective #5)

“Green-up” of Previous Clearcuts (SFI Objective #5)

Diversity of Forest Cover Across Landscape (SFI Objective #5)

II.B.2. Economic Viability

Protection from Wildfire, Insects and Diseases (SFI Objective #2)

See IVA, I'VE, VA, VB, VC, VIC2, VIC3.

Harvesting: Efficient Utilization (SFI Objective #7)

See IIIA6, IIIB6.

II.B.3. Social Desirability

Public Policy, Laws and Regulations (SFI Objectives #2, #4, #5, #6, #8; see below)

See IIIA5, IIIC2, IIIC3, IIIC4.

State BMPs for Reforestation (SFI Objective #2)

See I'VE.

State BMPs for Water Quality (SFI Objective #2)

See IIIA5, IIIA7, IIIB7, IVA, IVD, I'VE.

Other Landowners' Responsibilities for BMPs (SFI Objective #2)

Threatened & Endangered Species Conservation (SFI Objective #4)

See IIIA5, IVD, VA.

Visual Quality (SFI Objective #5)

See VIC3.

State BMPs for Visual Impact, Clearcuts (SFI Objective #5)

See IIIC2.

“Green-up” Requirements for Previous Clearcuts (SFI Objective #5)

Lands of Ecological, Geological, Cultural or Historic Significance (SFI Objective #6)

Encourage Compliance and Provide Information About Public Policies (SFI Obj. #8)

Part III. Land Grant University Research and Extension

Land grant universities have three distinct mandates: teaching, research, and extension (or “outreach”). The commitment to all three is evident at the four land grant universities which serve the Inland Northwest states of Idaho, Montana, Oregon, and Washington. The diversity of research activities at these universities produces and continually upgrades the knowledge needed for sustainable forest management. The scientific information base necessary for SFM is published in many outlets and transferred programmatically through extension and outreach programs to forest resource managers.

III.A. University of Idaho (U of I)

The University of Idaho, has more than 12,000 students from every state and more than 70 different countries. There are more than 10,000 students in 9 college units at the main campus in Moscow: Agricultural and Life Sciences, Business and Economics, Education, Engineering, Graduate Studies, Law, Letters and Social Science, Natural Resources, and Science. Research and teaching are intimately associated and mutually complementary, and most of the 700 faculty are actively engaged in research. UI research has led to new Idaho companies and new Idaho jobs in agriculture, forest and engineering industries, biotechnology, computer support and environmental problem solving.

III.A.1. U of I College of Natural Resources (CNR)

The University of Idaho’s College of Natural Resources (CNR) maintains a very active research program in a variety of areas. Opportunities for undergraduates and graduate students to participate in research programs, as part of their degree program or as summer employment and study, include, for example, research on the ecology of endangered species, restoration of damaged ecosystems, wildlife habitat management, remote sensing and analysis of the environment, wilderness issues, and environmental policy analysis. Visit the CNR website [online]:

<<http://www.its.uidaho.edu/cnr/>>.

PUBLICATIONS: Although most of the publications written by college faculty members appear in refereed journals, proceedings of professional meetings, and other off-campus outlets, the U of I maintains a research experiment station that serves as a central focus for research. The station identifies by number research contributions of faculty and publishes Station Bulletins, among other things. An example relevant to SFM is:

Return of the Giants: Restoring White Pine Ecosystems by Breeding and Aggressive Planting of Blister-Rust Resistant White Pines. U of I Station Bulletin 72, L. Fins, J. Byler, D. Ferguson, A. Harvey, M.F. Mahalovich, G. McDonald, D. Miller, J. Schwandt, and A. Zack (2001).

Other publications authored by U of I researchers can be accessed through journals and other outlets. Some of these are listed under brief personal faculty resumes that are organized according to the five home departments of college faculty: Forest Resources, Forest Products, Fish and Wildlife Resources, Rangeland Ecology and Management, and Resource Recreation and Tourism. There are also a number of research units in each department. Those pertinent to SFM and affiliated with the

departments of Forest Resources and Forest Products are identified below.

III.A.2. U of I Department of Forest Resources

The Department of Forest Resources conducts research in many specialty areas related to forest lands and their resources. Research units associated with the Department of Forest Resources include:

- S** Forest Research Nursery
- S** Policy Analysis Group
- S** Forest Tree Nutrition Cooperative
- S** Cooperative Park Studies Unit
- S** Tree Improvement Cooperative
- S** Remote Sensing and GIS Research
- S** Forest Biometrics and Inventory
- S** Laboratory of Ecological and Conservation Genetics
- S** Idaho Stable Isotopes Laboratory

Information about these research units is available from the Department's website [online]: <<http://www.ets.uidaho.edu/forres/>> (click "Research").

PUBLICATIONS: Current research projects and publications of faculty are listed on their individual faculty pages, available [online]: <<http://www.its.uidaho.edu/forres/>> (click "People" then "Faculty" then individual name).

III.A.3. Inland Empire Tree Improvement Cooperative

The Inland Empire Tree Improvement Cooperative (IETIC) is a coalition of industrial, federal, state, and non-industrial private land management organizations in Idaho, western Montana and eastern Washington. Members have established test plantations throughout the region to study genetic variation among populations, families and individuals in adaptation, growth and form, and resistance and susceptibility to forest pests. Additional ongoing and completed studies address specific questions related to the physiological components of selected traits.

The mission of the IETIC is to provide members with high quality technical information and reproductive material so they can produce an abundant supply of adapted, genetically improved seed of five commercial forest tree species that are commonly planted in the Inland Northwest: Douglas-fir, lodgepole pine, ponderosa pine, western larch, and western white pine. The IETIC programs emphasize primarily growth and form for the first four species and resistance to blister rust for western white pine. Blister rust resistant white pine seed can be purchased from the Cooperative.

PUBLICATIONS: No publications are listed or available online. Contact the IETIC director for a list of publications or faculty involved.

III.A.4. Intermountain Forest Tree Nutrition Cooperative

The Intermountain Forest Tree Nutrition Cooperative (IFTNC) is a research cooperative composed of public and private forestry organizations. The research area covers the intermountain northwest, from the east side of the Cascades to the west side of the Rocky Mountains. The IFTNC currently maintains approximately 250 permanent study plot areas in Oregon, Idaho, Washington and Montana.

Current research areas for the IFTNC include examination of the effect of varying levels of nitrogen and potassium fertilization on forest growth and health, and the establishment of plantations on contrasting rock types. (See “Bonehead Geology for Foresters” [online]: <http://www.uidaho.edu/~marianng/rocks/overview.html>.) The IFTNC is also actively involved in researching relationships between geology and forest health.

PUBLICATIONS: IFTNC staff have recently given several workshops on forest health and geology for Extension Forestry, and several publications listed there have resulted from this (see III.A.7). Contact the IFTNC director for a list of publications or faculty involved.

III.A.5. Policy Analysis Group (PAG)

The Idaho Legislature created the Idaho Forest, Wildlife and Range Policy Analysis Group (PAG) in 1989 as a way for the University of Idaho to respond to requests for information and analysis about current natural resource issues (Idaho Code §38-714). The PAG’s formal mission is to provide timely, scientific and objective data and analysis, and analytical and information services, on resource and land use questions of general interest to the people of Idaho.

The PAG is required by law to report the findings of all its work, whether tentative or conclusive, and make them freely available. PAG reports are primarily policy education documents, as one would expect from a state university program funded by legislative appropriation. The PAG identifies and analyzes scientific and institutional problems associated with natural resource policy issues. In keeping with the PAG’s mandate, several alternative policy options are developed and analyzed. As an operational policy the PAG does not recommend an alternative.

PUBLICATIONS: Following is a list of reports in the PAG Report Series. Abstracts of all reports and Executive Summaries for most reports are online in HTML format. Some full reports, especially the latest ones, can be downloaded in PDF format, as indicated below. The PAG website is [online]: <http://www.uidaho.edu/cfwr/pag/reports.html>.

1. Idaho’s Endowment Lands: A Matter of Sacred Trust (1990, full report online, HTML).
2. BLM Riparian Policy in Idaho: Analysis of Public Comment on a Proposed Policy Statement (1990, abstract online, HTML).
3. Idaho Department of Fish and Game’s Land Acquisition and Land Management Program (1990, abstract online, HTML).
4. Wolf Recovery in Central Idaho: Alternative Strategies and Impacts (1991, Executive Summary online, HTML).

5. State Agency Roles in Idaho Water Quality Policy (1991, Executive Summary online, HTML).
6. Silver Valley Resource Analysis for Pulp and Paper Mill Feasibility (1991, abstract online, HTML).
7. A National Park in Idaho? Proposals and Possibilities (1992, Executive Summary online, HTML).
8. Design of Forest Riparian Buffer Strips for the Protection of Water Quality: Analysis of Scientific Literature (1992, full report online, HTML).
9. Analysis of Methods for Determining Minimum Instream Flows for Recreation. (1993, Executive Summary online, HTML).
10. Idaho Roadless Areas and Wilderness Proposals (1993, Executive Summary online, HTML).
11. Forest Health Conditions in Idaho, J. O’Laughlin, J.G. MacCracken, D.L. Adams, S.C. Bunting, K.A. Blatner, and C.E. Keegan (1993, Executive Summary online, HTML).
12. Grizzly Bear Recovery in Idaho (1994, Executive Summary online, HTML).
13. Endangered Species Act at the Crossroads: New Directions from Idaho Case Studies, J. O’Laughlin and P.S. Cook (October 1995, Executive Summary online, HTML).
14. Idaho Water Quality Policy for Nonpoint Source Pollution: A Manual for Decision-makers (1996, Executive Summary online, HTML).
15. Guidelines for Managing Cattle Grazing in Riparian Areas to Protect Water Quality: Review of Research and Best Management Practices Policy, J.C. Mosley, P.S. Cook, A.J. Griffis, and J. O’Laughlin (1997, full report online, PDF).
16. History and Analysis of Federally Administered Lands in Idaho, J. O’Laughlin, W.R. Hundrup, and P.S. Cook (1998, Executive Summary online, HTML).
17. Public Opinion of Water Quality Issues and Funding Options in Idaho, J. O’Laughlin (1998, Executive Summary online, HTML).
18. Toward Sustainable Forest Management: Part I - Certification Programs, P.S. Cook and J. O’Laughlin (1999, full report online, PDF).
19. Toward Sustainable Forest Management: Part II - The Role and Effects of Timber Harvesting in Idaho, P.S. Cook and J. O’Laughlin (2000, full report online, PDF).
20. Taxing Forest Property: Analysis of Alternative Methods and Impacts in Idaho, P.S. Cook and J. O’Laughlin (2001, full report online, PDF).
21. Endowment Fund Reform and Idaho’s State Lands: Evaluating Financial Performance of Forest and Rangeland Assets, J. O’Laughlin and P.S. Cook (2001, full report online, PDF).

The PAG is currently working on six reports. Two will be published in Spring 2003: PAG #22 - “Resources-Based Economic Development in Idaho: Analysis of Concepts, Resource Management Policies, and Community Effects” and PAG #23 - “Risk Analysis: Primer on Natural Resources Applications.” Two original reports will be published later in 2003: “Endangered Species Act Delisting” and “Public Land Exchanges.” Another report scheduled for completion in summer 2003 will compare Idaho legal requirements to the two major certification programs, replicating a study completed in Oregon in 2001. And the PAG is revising Report #1 on Idaho’s endowment lands. In a broad sense, all of these projects have some relationship to sustainable forest management.

PAG Reports #18 and #19 treat SFM in detail. An abstract of each is provided below. Because of the extensive literature reviews in these two reports, they could be the cornerstone of a library on SFM. Although they can be downloaded from the Internet, the PAG maintains a supply of printed

reports available for distribution. Because of the information explosion, these reports became outdated the day after they were published. It requires considerable effort to keep information and knowledge about SFM current.

PAG Report #18. *Toward Sustainable Forest Management: Part I - Certification Programs*, P.S. Cook and J. O’Laughlin (1999, full report online, PDF). Abstract: Programs certifying that landowners practice sustainable forest management, or that wood-based products come from sustainably managed forests, are in the early stages of development. Certification programs, and criteria and indicator (C&I) frameworks on which they are based, are tools for describing and implementing sustainable forestry. This report explains what C&I frameworks are and reports on a field test in Idaho. The report also explains what forest certification is, describes prominent certification programs, and analyzes policy issues that arise from the development and implementation of this approach to sustainable forest management.

PAG Report #19. *Toward Sustainable Forest Management: Part II - The Role and Effects of Timber Harvesting in Idaho*, P.S. Cook and J. O’Laughlin (2000, full report online, PDF). Abstract: Sustainable forest management is one goal of a growing list of human activities that impact the environment. This report places timber harvesting in Idaho in that context. The focus questions that guide the analysis are: What is sustainable forest management? How important is the timber harvesting issue in Idaho? What is the timber situation in Idaho’s forests? What policies affect timber harvesting in Idaho? What are the effects of timber harvesting on other resources? The report also examines alternative approaches to watershed analysis as a tool to assure that forest management activities are sustainable.

In addition to the PAG Report Series, the PAG also publishes other papers related to sustainable forest management, including updates of forest health conditions in Idaho and western national forests. These are available [online]: <<http://www.uidaho.edu/cfwr/pag/otherpapers.html>>.

III.A.6. Dept. of Forest Products & Inland-Northwest Forest Products Research Consortium

Members of the Department of Forest Products are involved in several research projects including business management, forest engineering, road design and engineering, forest products manufacturing, wood pellet technology, inorganic bonded wood and fiber composites, measurement of dry kiln emissions, sawmill and logging simulation, affordable housing, timber harvesting technology, mill operations, veneer and composite technology, computer detection of flaws in scanned logs, small-diameter timber utilization, designing, engineering and testing wood structures, and stress-wave analysis of lumber. Faculty members also work in coordination with the Bureau of Business and Economic Research at the University of Montana and the Wood Materials and Engineering Laboratory at Washington State University.

The Inland-Northwest Forest Products Research Consortium represents a cooperative effort between the Forest Products Department at the University of Idaho, the Bureau of Business and Economic Research at the University of Montana, and the Wood Materials and Engineering Laboratory at Washington State University. The Consortium utilizes a multi-disciplinary, multi-institutional approach to forest industry problems unique to the Inland Northwest. One featured herein is

defining the changing timber resource. Information, including program descriptions of all Consortium activities and publications lists, is available [online]:
<<http://www.its.uidaho.edu/forp/consortium.htm>>.

Consortium research objectives are to:

1. Define the changing timber resource.
2. Characterize the unique physical, mechanical, and chemical properties of the new small-diameter timber resource.
3. Evaluate the capabilities of the regional forest industry to harvest and process the changing timber resource.
4. Develop new harvesting and processing systems to deal with small-diameter timber under increasingly stringent environmental constraints.
5. Develop new products and markets to enhance the value of the changing timber resource.

There are fifteen areas of accomplishments featured on the Consortium's website, including a list of publications and presentations related to several projects. One is the *Operability of New Forest Management Regimes*. This project is particularly relevant to sustainable forest management (SFM) because it demonstrates that one particular approach to managing forests may be more sustainable than another. In particular, this project researches in depth the often overlooked interrelationship of the ecological and economic dimensions of SFM. A problem statement, research approach, and general results are available online at the Consortium's website. A list of publications relevant to this project follows.

PUBLICATIONS:

Restoration Treatments Promote Growth and Reduce Mortality of Old-Growth Ponderosa Pine.

Ecological Restoration 18:117-119, C.E. Fiedler (2000).

Silvicultural Treatments. *In: Bitterroot Ecosystem Management Research Project: What We Have Learned*. USDA Forest Service, Rocky Mountain Research Station, Proceedings RMRS-P-17, pp. 19-20, C.E. Fiedler (2000).

Overcoming America's Wood Deficit: An Overlooked Option. *BioScience* 51:53-58, C.E. Fiedler, S.F. Arno, C.E. Keegan, and K.A. Blatner (2001).

Synergy between Ecological Needs and Economic Aspects of Ecosystem Restoration. *In: Bitterroot Ecosystem Management Research Project: What We Have Learned*. USDA Forest Service, Rocky Mountain Research Station, Proceedings RMRS-P-17, pp. 74-76, C.E. Keegan and C.E. Fiedler (2000).

Harvest Cost Collection Approaches and Associated Equations for Restoration Treatments on National Forests. *Forest Products Journal*, C.E. Keegan, M.J. Niccolucci, C.E. Fiedler, J.G. Jones, and R.W. Regel (in press).

Forest Restoration and Forest Product Output in the Inland West. Proceedings of the 2001 Forest Products Society Annual Meeting, C.E. Keegan, C.E. Fiedler, and T.A. Morgan (in press).

Idaho's Forest Products Industry: Current Conditions and Outlook, 2002. C.E. Keegan, T.A. Morgan, S. Shook, F.G. Wagner, K.A. Blatner (2002), [online]:
<http://www.idahoforests.org/images/pdf/idaho_outlook2002.pdf>.

Contact the senior authors for copies of these publications. (C.E. Fiedler at School of Forestry and

C.E. Keegan at School of Business Administration, University of Montana). Also see III.B.6 below.

III.A.7. U of I Extension Forestry

The University of Idaho Extension Forestry office provides education and information that helps private forest owners, natural resource professionals, and loggers better manage forests and other natural resources. In addition to established educational workshops, field trips, publications, and videos, a web site is offered as another tool for planning and managing forested land. [Online]: <<http://www.its.uidaho.edu/extforest/>>.

PUBLICATIONS (sampling):

A long list of relevant publications, many of them in PDF format, are available [online]:

<[http://www.its.uidaho.edu/extforest/publications.htm#Forest Management](http://www.its.uidaho.edu/extforest/publications.htm#Forest%20Management)>

A selected sampling – with the title, publication number, and format – includes the following:

Forest Water Quality and Sediments. WQ6 (PDF)
Idaho's Water Quality Laws and TMDL's. WQ5 (PDF)
Control Deer and Elk Browse Damage. WL8 (PDF)
Integrating Wildlife Improvements Into Your Woodland Plan. WL2 (PDF)
Monitoring Tree Health on Private Woodlands. FM21 (PDF)
Healthy Forests Need a Good Diet. FM17 (PDF)
Plant Health Care: Common Sense Forest Management. FM11 (PDF)
Good Rocks/Bad Rocks: The Latest Piece in the Puzzle of Natural Forest Fertility. FM 24 (PDF)
Improving Forest Productivity for Timber: A Key to Sustainability. FM29 (PDF)
Diameter Limit Cutting FM2 (PDF)
Ecosystem Management for Private Woodlands? FM20 (PDF)
Prescribed Burning: A Natural Way to Manage Ecosystems F2 (PDF)
Forest Stewardship: What is the Right Thing to Do? FM16 (PDF)
Planting White Pine: Risks and Rewards for Landowners. TPC17 (PDF)
Genetic Improvement of Woodland Ecosystems in the Pacific Northwest. (PDF)
Are Your Streams Healthy? WQ3 (PDF)
Prevent Forest Soil Compaction: Designate Skid Trails (PDF), Article of the Month, Feb. 2002
Forestry BMP's for Idaho. EXT 745 (not available online)
Salvaging Dead Timber FM6 (PDF)
Salvaging Beetle-Killed Trees. FM30 (PDF)
Silvicultural Decisions (a 7-publication series in PDF format)

III.B. The University of Montana (UM) and Montana State University (MSU)

The University of Montana has more than 12,000 students and 800 faculty. UM's main campus in Missoula is comprised of the College of Arts and Sciences, the Graduate School, the College of Technology and seven professional schools: business administration, education, fine arts, forestry, journalism, law, and pharmacy and allied health sciences.

III.B.1. School of Forestry / Montana Forest & Conservation Experiment Station (MFCES)

The Montana Forest and Conservation Experiment Station is a state-wide agency that serves as the research unit of the University of Montana School of Forestry. MFCES pursues a wide variety of research and development efforts supported by many different partners. Broad-based research programs and excellent research faculty and graduate students combine with unique research facilities to create an environment that fosters excellence in natural resource science.

MFCES is devoted to the scientific investigation of natural resources and their management. Its research and publications enhance public understanding of forestry and conservation, and contribute to the wise use of our nation's forage, water, timber, wildlife, recreation, wilderness, and amenity resources.

MFCES Research Programs Include:

- Modeling and Management Information Systems
- Fire Ecology and Management
- Ecology and Ecosystems
- Silviculture and Stand Management
- Wildlife Ecology and Management
- Water, Riparian and Wetland Resources
- Recreation, Tourism and Wilderness
- Economics, Management and Policy

PUBLICATIONS: Current research projects and publications of faculty are listed on individual pages, available [online]: <<http://www.forestry.umt.edu/Personnel/dirs/webfaculty.asp>> (click on individual names to see the information) and in the MFCES biennial report.

III.B.2. Inland Northwest Growth & Yield Cooperative (INGY)

The Inland Northwest Growth and Yield (INGY) cooperative was established in 1984 to address mutual technical problems and concerns regarding the growth and yield of forests in the Inland Northwest. The participants of this cooperative come from industry, states/provinces, tribal councils, private consulting firms, federal agencies, and universities. Together these specialists and analysts have been able to identify and solve complex mensuration problems that would not have been possible if working by themselves. The goals are to:

1. Identify, evaluate, and rank growth and yield needs in the Inland Northwest.
2. Develop managed stand yield tables for major species within the region.
3. Coordinate and initiate acquisition of high priority growth and yield information.
4. Encourage development of yield forecasting methods to improve forest management.
5. Facilitate the dissemination of growth and yield information.

INGY accomplishments in the past five years include:

1. Completion of new, multi-point taper models for major Inland Northwest species.
2. Completion of a meta-database for Inland Northwest growth and yield datasets.
3. Recommended permanent plot design for small trees and competing vegetation.
4. Individual tree, mechanistic "process" model for projecting stand inventories of trees

and understory vegetation.

5. Re-measurement, database development, and analysis of re-measured site preparation and release trials, and residual stand response plots.

PUBLICATIONS: Although INGY website does not include publications, a list of accomplishments includes what appear to be project reports, available [online]:
<<http://www.forestry.umt.edu/research/MFCES/programs/ingy/LIST.HTM>>.

III.B.3. Bolle Center for People and Forests

In 1994 the Bolle Center for People and Forests was formed to focus attention on integrated educational programs and on understanding how collaborative and community processes would foster effective participation in natural resource decisions by stakeholders. In addition to developing and implementing curricula on-campus, it has done work in several natural resource based communities and with foundations and government agencies focused on collaboration and capacity building. The Bolle Center deals substantively with issues of sustainable forests and associated communities.

PUBLICATIONS: A description of the Center and accomplishments is available [online]:
<<http://www.forestry.umt.edu/research/MFCES/programs/bolle/>>.

III.B.4. Mission Oriented Research Program (MORP)

For the past 20 years the Mission Oriented Research Program has developed and disseminated knowledge and techniques needed to improve multiple resource production of second growth forests in Montana. In recent years MORP has focused attention on landscape level applied ecosystem management in addition to its long-standing work on forest stands.

PUBLICATIONS: MORP publications are listed with MFCES publications as noted above.

III.B.5. National Center for Landscape Fire Analysis (NCLFA)

The National Center for Landscape Fire Analysis was established in 2001 to develop, integrate, and synthesize remote sensing, and other information technology applications, to fire and fuels management at the landscape level. It is developing models and application products that are instrumental to assessing and managing for sustainable forests that might be or have been disturbed by fire.

PUBLICATIONS: As a new Center NCLFA does not yet have a stream of publications, but future work will be included [online]: <<http://www.forestry.umt.edu/MFCES/research/>>.

III.B.6. Forest Products Industry Research Program, Bureau of Business and Economic Research, School of Business Administration

For more than 20 years, the Bureau's Forest Products Industry Research Program has monitored

industry operations in Montana and the other Rocky Mountain states. In Montana, the program provides quarterly assessments on the industry's condition and future outlook. Program research is focused on the industry's structure, operations, output, raw material source, and utilization, as well as associated employment, payrolls, and the industry's role in state and local economies. The program also includes research on the feasibility of implementing *new forest management regimes*, with particular emphasis on the economics of ecosystem restoration prescriptions in national forests (emphasis added).

• **New Forest Management Regimes.** Responding to an array of social and biological concerns, virtually every major land owner in the Rocky Mountain region has shifted their forest management approach to include more consideration for non-timber resources. This new approach has changed the way timber is produced, and has substantially impacted the operability of forest management activities, including timber harvesting and processing. Since 1990, the Bureau has been working with land management agencies and university personnel to clarify the economic character of these changing practices and to suggest ways to improve their implementation. Project cooperators include:

S School of Forestry, The University of Montana, Missoula MT.

S USDA Forest Service, Rocky Mountain Research Station, Forestry Sciences, Missoula, MT.

S USDA Forest Service, Rocky Mountain Research Station, Inventory Monitoring and Evaluation Program, Ogden, UT.

S USDA Forest Service, Pacific Northwest Research Station, Portland, OR.

S Forest Products Department, University of Idaho, Moscow, ID.

PUBLICATIONS: See III.A.6 above, and also:

Effectiveness and Efficiency of Fire Hazard Reduction Treatments, C.E. Fiedler, C.E. Keegan III, et al. [online]: <<http://www.bber.umt.edu/forestproducts/fireReports.asp>>.

The summer of 2000 emphasized the ecological, social, and economic impacts that severe wildfires can create in Montana and elsewhere in the West. Increasingly, the public and elected officials are searching for management actions that can effectively and efficiently reduce fire hazard and restore sustainable ecological conditions in western forests.

These strategic assessments of fire hazard in Montana and New Mexico are the first of their kind. Utilizing Forest Inventory and Analysis (FIA) data and current forest growth and fire hazard models (Forest Vegetation Simulator [FVS] and the Fire and Fuels Extension [FFE], respectively), researchers were able to describe and quantify forest and fire hazard conditions at the statewide level. The reports also include analyses of the effectiveness and cost efficiency of various hazard reduction treatments.

The research was conducted jointly by faculty at the School of Forestry and Bureau of Business and Economic Research at The University of Montana, as part of the cooperative National Joint Fire Sciences Program project "Assessing the Need, Costs, and Potential Benefits of Fire and Mechanical Treatments to Reduce Fire Hazard."

III.B.7. MSU Extension Service

The Montana State University Extension Service is an educational resource dedicated to improving the quality of people's lives by providing research-based knowledge to strengthen the social, economic and environmental well-being of families, communities and agricultural enterprises.

PUBLICATIONS:

Relevant publications are listed below. None of these are available on the Internet. The list includes titles, abstracts, date, publication number, and from the Internet. This information is [online]:

<<http://www.montana.edu/wwwpb/pubs/#OEWFForestry>>.

Forest Ecosystem Stewardship. This 49-page soft cover book uses color photographs and drawings to illustrate how various management alternatives have affected forest ecosystems in the Northwest. The book makes the case for ecosystem management as a way to ensure clean water, plant and wildlife biodiversity, and sustainability of the forest resource (1996) EB 141, \$5.00

Trees and Shrubs in Montana. Assists in identifying 21 conifers, 22 broadleaf trees and 32 broadleaf shrubs. 76 pages. Illustrated (1993) 2B0323, \$4.50

Riparian Forest Stewardship. Four-color pamphlet discusses forest found along streams, lakes and reservoirs. (1994) EB118, Free

Riparian Forest Wildlife. Describes the reasons for riparian forest voluntary guidelines. The riparian forest is not just a place where a few favorite birds and animals collect. The part of the forest located along streams, rivers and lakes is an attraction for countless wildlife species. Many need riparian forests to survive. Others use this place seasonally while others thrive in both riparian and upland forests (1997) EB 146, \$5.00

Montana Forestry BMPs (Best Management Practices) (1991) EB 96, Free

III.C. Oregon State University (OSU)

III.C.1. OSU College of Forestry

The mission of the College of Forestry is to conduct distinctive problem-solving and fundamental research on the nature and use of forests and related resources, to effectively share discoveries and knowledge with others, and to educate and engage the next generation of scholars, practitioners, and users of the world's forest resources.

PUBLICATIONS:

Nearly 1500 titles, including both College of Forestry publications and reprints of journal articles, reporting research by College scientists are available from the Publications Office. None of these are listed or published on the Internet. To obtain a complete list of these publications, or to be put on the mailing list for flyers, contact:

Judy Starnes
FRL 227
Oregon State University
Corvallis, OR 97331-7401, USA
W: (541) 737-4271

F: (541) 737-3385

Email: forspub@frl.orst.edu

The OSU College of Forestry publishes the *Focus on Forestry* magazine three times a year, with news articles and digests of featured research. For example:

Research: Report Says Forestry and Water Quality are Compatible. *Focus on Forestry*, Winter 2001, p. 17. [Online]: <<http://www.cof.orst.edu/pubs/cof/focus/FF-WI-01.pdf>>

III.C.2. Sustainable Forestry Partnership

The Sustainable Forestry Partnership's mission is to document and promote innovation in sustainable forestry and integrate this innovation broadly into both policy and practice. The Sustainable Forestry Partnership engages an expanding network of partners including university faculty, industry experts, non-government organization representatives, government agencies, and individuals in the development and production of:

- Identify key sustainable forestry issues and trends
- Design and conduct sustainable forestry research
- Develop education and training materials and events
- Provide assistance services to organizations and individuals interested in sustainable forestry issues.

The Partnership began in 1995 as a diverse group of faculty from Oregon State University. With initial support from the John D. and Catherine T. MacArthur Foundation, and later other foundations and governmental support, the Partnership has grown to include faculty and staff at Auburn University School of Forestry & Wildlife Sciences, Oregon State University College of Forestry, the Pennsylvania State University School of Forest Resources and the U.S. Department of Agriculture Cooperative State Research, Education, and Extension Service (USDA CSREES). The long-term goal of the Partnership is to have staff housed at several institutions, reflecting regional and disciplinary diversity.

Information about the partnership is available [online]: <http://sfp.cas.psu.edu/about_us.htm>.

PUBLICATIONS:

The Sustainable Forestry Partnership offers some publications for the wide variety of sustainable forestry issues. Some are [online]: <<http://sfp.cas.psu.edu/publications.htm#publications>>.

• **Comparison of Two Forest Certification Systems and Oregon Legal Requirements.** This most recent publication of the Sustainable Forestry Partnership, summarized below, is of particular relevance to other states with mandatory forest practices acts, including Idaho, Montana, and Washington. This study was conducted for the Oregon Department of Forestry by three OSU faculty members and published in December 2001. A synopsis of the study written by Professor Paul W. Adams for the Society of American Foresters follows:

Systems for the independent certification of forestlands and management activities have been evolving rapidly in recent years. These systems attempt to assure the public that management of

specific forest ownerships adequately deals with environmental and other concerns, and may provide some unique markets for products from these certified lands. However, given the substantial laws that already direct forestland use and practices in Oregon, forest owners and decision makers here have raised questions about how these existing requirements may overlap or differ from those of major certification systems such as the Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative (SFI). Such questions were addressed in a recent analysis sponsored by the Oregon Department of Forestry and conducted by OSU College of Forestry faculty members Rick Fletcher, Paul Adams and Steve Radosevich.

The analysis showed that Oregon legal requirements for forest land use, regeneration, fire control, endangered species, and water, air and visual quality were generally more detailed and specific than the certification systems. The certification systems also differed in their emphasis on standards that encompass whole ownerships and management systems, versus the typical activity-specific focus of Oregon law. Between the certification systems, the SFI program did not specifically address many socio-economic concerns considered under FSC, although the SFI gave greater emphasis to research and training, and the standards for auditing procedures used for certification. Contact Paul Adams, OSAF Policy chair, 541-737-2946; paul.adams@orst.edu.

Source: “Policy Scoreboard,” *Western Forester* (see **VI.C.6**) 47(1):22 (Jan./Feb. 2002).

The purpose of the study, its point-by-point findings, and its implications for Oregon’s landowners, certifiers, and Oregon’s policymakers are available [online]: <<http://sfp.cas.psu.edu/publications.htm#publications>> (under the report title, click on the desired format).

III.C.3. OSU Department of Forest Resources

The Department of Forest Resources provides instruction and information concerning the management of forest resources and related activities. The basic purpose of the department is to help the people of Oregon and the Pacific Northwest have a viable and productive forest land base, forest products industry, and outdoor recreation/tourism industry which enhances the environment, economy, and quality of life for residents of Oregon and the region. Involvement also extends to other regions of the United States and the world. Efforts involve educating students about the many facets of forest resource management; educating professionals, landowners, and the general public about the concepts, techniques, and issues surrounding forest resources; and generating new information which enhances the reservoir of knowledge concerning forest resources.

The department’s research programs in silviculture and forest management, park and wildland management, forest biometry/modeling, remote sensing/GIS/photogrammetry, natural resource economics and policy, social science, and forest recreation and tourism are primarily directed toward evaluation and management of Oregon’s forest lands and their uses. In conjunction with other College and University departments, the Pacific Northwest Research Station of the U.S.D.A. Forest Service, the U.S.D.I. Geological Survey, the U.S. Environmental Protection Agency, and other public and private research organizations, the department provides the research base for forest-related issues and opportunities in Oregon.

Although focused on Oregon, much of the department's research involves projects of regional, national, and international scope. As a leading institution in the study of forest resources, it is imperative that we maintain a global perspective and contribute to improvements in forest resource stewardship on a world-wide scale.

PUBLICATIONS:

The Department's Internet site features two publications relevant to SFM:

Planted Forests: Contributions to the Quest for Sustainable Societies, Kluwer Academic Publishers, edited by J.R. Boyle, J.K. Winjum, K. Kavanagh, and E.C. Jensen (1999). Includes chapters "Four Common Myths about Plantation Forestry"; "On the Sustainable Productivity of Planted Forests"; "How Can We Feign Sustainability with an Increasing Population?"; "International Expectations for Sustainable Forestry: A View from the U.S. Forest Industry"; and "International Expectations for Sustainable Forestry: A View from the U.S. Forest Industry." Chapter abstracts are available [online]:
<http://www.cof.orst.edu/pubs/cof/plntdfor/abst_toc.htm>.

Developing a Framework for Social Assessments: The goal of this project is to develop a framework for performing social assessments of forested ecosystems. In 1998 a group of experts in this field met in Portland, Oregon, to begin a dialogue on how this issue should be addressed. The forest assessment projects will provide the background about conditions and trends of Oregon's forests, in-depth analyses of significant policy questions, and analytical tools with which to examine scenarios of the future development of the state's forests under alternative forestry policies. Key to the projects will be use of criteria and indicators from the Santiago Declaration as the basis to describe forest conditions. This web site is the forum for continuing that discussion. [Online]: <<http://www.cof.orst.edu/cof/fr/research/assess/>>.

Research interests of faculty are listed on the department's site, available [online]:

<<http://www.cof.orst.edu/cof/fr/people/faculty.sht>> (click on name of the individual to go to their personal page, which includes a list of representative publications).

III.C.4. OSU Forestry Extension

There are a variety of publications available to help understand forests and their management. Many are available online and some can be purchased by mail or through a trip to the local county extension office. [Online]: <<http://www.cof.orst.edu/cof/extended/extserv/pubs.htm>>.

PUBLICATIONS (a sampling):

A Point in Time: Oregon's Watershed Councils—Summary of a Recent Survey (PDF).
Oregon's Woodland Owner—A Brief Description of NIPF Ownership in Oregon (PDF).
Stand Volume and Growth: Getting the Numbers. EC 1190 (PDF)
Using Precommercial Thinning to Enhance Woodland Productivity. EC 1189 (HTML)
Soil Compaction on Woodland Properties. EC 1109 (PDF)
Designated Skid Trails Minimize Soil Compaction. EC 1110 (PDF)
Designing Woodland Roads. EC 1137 (PDF)
Maintaining Woodland Roads. EC 1139 (PDF)

Ecosystem Management: Opportunities and Implications for Woodland Owners. EC 1469 (PDF)
Enhancing Wildlife on Private Woodlands. EC 1122 (PDF)
Soil and Water Conservation: An Introduction for Woodland Owners. EC 1143 (HTML)
Forest Health in Eastern Oregon. EC 1413 (PDF)
Managing Wildlife Habitats in Forested Ecosystems. EC 1470 (not available online)
Stream Temperatures: Some Basic Considerations. EC 1489 (PDF)
The Water Quality Limited Stream Segments List--What does it mean? EM 8636 (HTML)
Forest Ecosystem Stewardship. EM 8676 (not available online)
Watershed Stewardship: A Learning Guide. EM 8714 (PDF)

III.D. Washington State University (WSU)

III.D.1. WSU Department of Natural Resource Sciences

The Department of Natural Resource Sciences at WSU is a unit of the College of Agriculture and Home Economics. It's mission is: to advance and impart knowledge of ecosystems and natural resources, including their attributes and functions; their ecological and societal values; and their management in an ecologically, socially and economically sound, sustainable manner. This mission is pursued through programs in undergraduate and graduate education, basic and applied research, and extension and continuing professional education. These programs promote stewardship of natural resources and ecological systems; contribute to abundant and sustainable systems for food, fiber and other natural resource-derived products and values; and promote the well-being and quality-of-life of resource-dependent communities and other citizens of the State, nation and world.

These programs reflect and integrate the breadth of disciplines and professions comprising natural resource science, including forestry, range management, wildlife ecology, wildland recreation management, and contributing biophysical and social sciences. They benefit both natural resources themselves, and the various constituencies (student, public, private landowner and professional; local, state, regional, national and international) dependent upon and/or concerned with such resources. These programs also demonstrate departmental dedication to positive working/learning environments that reflect and foster valuing, understanding and respect of human diversity in the broadest sense.

Research conducted by faculty and students comprises a mix both of “basic” scientific inquiry leading to improved understanding of fundamental principles, concepts and relationships governing natural resources and ecosystems; and of applied research designed to illuminate, test and evaluate the practical use of basic research-derived knowledge in natural resource management. Most departmental research efforts can be broadly placed within the following five program areas:

- Ecophysiology and intensive culture of forest trees
- Conservation biology and ecological restoration
- Habitat, nutritional and population ecology of terrestrial wildlife
- Rangeland ecology and management
- Social and economic dimensions of natural resources

PUBLICATIONS: Current research projects and a short list of representative publications of faculty

members are provided on their individual faculty pages, available [online]:
<<http://www.natural-resources.wsu.edu/>> (click on “People” then individuals).

III.D.2. WSU Natural Resource Extension

Cooperative Extension Natural Resources at WSU is a source for information and resources about managing private forestlands in the northwest U.S., especially Washington State. The main office is located at Washington State University in Pullman. Many Extension Agents are located in county offices to better serve and provide research-based education to the citizens of the state. State specialists in forestry, range, wildlife, watershed management, and recreation work closely with our Extension Agents to form the Extension Natural Resources team. An Internet site provides downloadable reading materials and information and registration forms for educational opportunities (seminars, short courses, field tours, and workshops) [online]:
<<http://ext.nrs.wsu.edu/>>.

PUBLICATIONS: Written materials provided by Natural Resource Extension about forestry, wildlife, range, and watershed management come in many forms, including online resources, books, training materials, and electronic files. Examples:

Forest Health Notes. A series of online publications for non-industrial private landowners.

Log Price Reports (online).

Wildlife Ecology and Forest Habitat. EB1866 (PDF).

Managing Forests for Migrant Songbirds. MISC0198 (PDF).

Forest Stewardship Notes, published twice a year, is written for private forestland owners in the state of Washington that are interested in learning more about the management of natural resources. Topics include forest management, wildlife management, range management, topics in forest taxation, economics, business, watershed management, and many more. All files are downloadable in PDF format.

Part IV. State Forestry Agencies

Each of the 50 states has a state forestry agency. The agencies' functions in the four Inland Northwest states are to manage state lands, provide fire and forest protection in cooperation with federal and local governments, and provide forestry assistance to nonindustrial private forest landowners. Each of these four agencies offers a variety of publications related to these functions. The National Association of State Foresters also has publications relevant to sustainable forest management.

IV.A. Idaho Department of Lands (IDL)

The Idaho Department of Lands implements the management directives set down by the Idaho Constitution and the Board of Land Commissioners for endowment lands (i.e., state trust lands) that currently total nearly 2.5 million acres, including 780,000 acres of forest land managed for timber production. The Forest Management Bureau coordinates and administers forest products sales, forest improvement, forest inventory, and measurement of all designated forest products from endowment lands.

The Department's Forestry Assistance Bureau coordinates and administers Urban/Community forest management, Service Forestry assistance to small forest landowners, the Idaho Forest Practices Act, and the Insect and Disease Program to protect state and private forests of Idaho.

PUBLICATIONS:

The Forestry Assistance Bureau produces State Forester Forums. These are short informational publications discussing various aspects of forest management practices. All Forums are in PDF format and available [online]:

<http://www2.state.id.us/lands/Bureau/ForestAssist/state_forester_forum.htm>.

The following examples are all in the Forest Practices category, a particularly important one because the department is responsible for implementing the Idaho Forest Practices Act:

- S** Cross-Ditches
- S** Idaho Forest Practices Act Stream Protection Zones
- S** Slash Removal From Streams
- S** Forest Roads Good and Poor Characteristics
- S** Fords: When, Where, Why, and How
- S** Seeding Disturbed Sites
- S** Managing Forest Soils for the Future
- S** Rolling Drain Dip
- S** Fish Passage Guidelines When Installing Stream Crossings
- S** Slash Filter Windrows Correctly
- S** Classifying Streams to Protect Fisheries and Domestic Water Supplies
- S** Sidehill Roads: Abandonment Closure Guidelines

IV.B. Montana Department of Natural Resources and Conservation (DNRC)

The Montana DNRC Forestry Division's mission is protecting Montana's natural resources from wild land fires through regulation and partnerships with federal, state, and local agencies, and helping Montanans achieve land stewardship and compliance with state forestry laws. The Service Forestry function provides services to various client groups to help them comply with State forestry laws and achieve their own forestry-related objectives.

Services are delivered to individuals, local governments, corporations, other agencies, and the general public. They include administering the pre-notification, hazard reduction, and stream side management laws; providing information on Forestry Best Management Practices; offering technical advice, education and cost-share assistance for private forest management; comprehensive management of Montana's community forest resources through programming, technical, and financial assistance; detecting and controlling insect and diseases; producing forest plants for conservation plantings and reforestation and timber sale assistance.

These services are provided under a number of statewide programs available [online]: <<http://www.dnrc.state.mt.us/forestry/ServiceForestryPrograms/index.htm>>.

PUBLICATIONS:

The Montana DNRC site does not provide information in publication form, but digests of pertinent rules and descriptions of best management practices are provided.

IV.C. Oregon Department of Forestry

The Oregon Department of Forestry has a mission to serve the people of Oregon through the protection, management, and promotion of a healthy forest environment which will enhance Oregon's livability and economy for today and tomorrow. The Department's Internet site describes the Department's programs [online]: <<http://www.odf.state.or.us/>>.

One way to look at the various programs and operations of the Department is as a series of interwoven businesses all working toward the goal of providing stewardship for Oregon's forests. An overview of each "business" looks like this:

- *Protection from Fire*– The goal of the Department's largest program, Protection from Fire, is to devise and use environmentally sound and economically efficient strategies which minimize the total cost to protect Oregon's timber and other forest values from loss caused by wildland fire.
- *Forest Practices*– The Forest Practices Program works to assure the continuous growing and harvesting of forest tree species and maintenance of forest land for forest purposes are the primary uses of privately owned forest lands. The program also assures that forest practices are consistent with sound management of soil, air, water, fish and wildlife resources.
- *Forestry Assistance*– This program provides technical and financial assistance to help mitigate Oregon's future timber supply shortage while it promotes forest health, enhances and protects

critical natural resource values such as fish and wildlife habitat, soils, air, water, recreation and aesthetics on nonfederal forest land. The Urban and Community Forestry Program provides leadership and technical services that support the stewardship of Oregon's urban and community forests, and foster public awareness of the contributions urban forests make to the quality of life, the environmental and economic well-being of Oregon's cities.

- *State Forest Management*— The State Forest Program manages 786,000 acres of state-owned forest land in Oregon. The forests are managed in a stewardship manner to generate revenue for county governments and local taxing districts (Board of Forestry Lands), and for the Common School Fund (Common School Forest Lands).

PUBLICATIONS:

The Oregon Department of Forestry's Internet site provides several different types of publications, including *Forest Log*, the Department's bimonthly magazine; and forestry assistance information, including "Forest Health Notes."

The Department is a leader among state agencies in considering how the worldwide interest in sustainable forest management can be applied in Oregon. The result of that effort is *Oregon's First Approximation Report for Forest Sustainability*, available [online]: <http://www.odf.state.or.us/rp/FAR/FARdefault.html>.

IV.D. Washington Department of Natural Resources (DNR)

The role of the Washington DNR is to protect and manage many valuable assets that belong to citizens of the state, including more than 5 million acres of land—forests, farms, commercial properties and underwater lands—all of which are managed by the DNR to provide benefits. Much of this land is dedicated to supporting public institutions like schools and universities. The DNR manages it, selling products like timber and wheat, and last year earned \$311 million dollars for citizens. Information is available [online]: <http://www.wa.gov/dnr/>.

The DNR also protects other public resources—fish, wildlife, water, etc.—while landowners go about their business. Two of the Department's largest and most important responsibilities in resource protection are fire prevention and suppression and regulating forest practices (or timber harvest). The Department's website provides information about forestry and lists of publications, maps, data, and other information [online]: <http://www.wa.gov/dnr/htdocs/adm/comm/qa2.htm#forestry>.

The WDNR also provides a considerable amount of information about its Forest Practices Division [online]: <http://www.wa.gov/dnr/htdocs/fp/div/div.html>.

The *Forests and Fish Report*, published in 1999, provides a wealth of material related to sustainable forest management [online]: <http://www.wa.gov/dnr/htdocs/fp/fpb/forests&fish.html>.

The authors of the *Forests and Fish Report* worked together to develop biologically sound and economically practical solutions for improving and protecting riparian habitat on non-federal forest

lands in the State of Washington. These discussions have been commonly referred to as the “forestry module” for the Washington’s Statewide Salmon Recovery Strategy and have culminated in the recommendations outlined in the *Report*.

The goals of the forestry module discussions are fourfold:

1. to provide compliance with the Endangered Species Act for aquatic and riparian-dependent species on non-federal forest lands;
2. to restore and maintain riparian habitat on non-federal forest lands to support a harvestable supply of fish;
3. to meet the requirements of the Clean Water Act for water quality on non-federal forest lands; and
4. to keep the timber industry economically viable in the State of Washington.

IV.E. National Association of State Foresters (NASF)

The National Association of State Foresters is a non-profit organization that represents the directors of the State Forestry agencies from all fifty states, eight U.S. territories, and the District of Columbia. The State Foresters provide management assistance and protection services for over two-thirds of the nation’s forests. NASF maintains an office in Washington, D.C. where staff members are actively involved in the national forestry community and keep State Foresters up to date on important policy, legislative, and legal issues affecting forest management in the United States. Information is available [online]: <<http://www.stateforesters.org/index.html>>.

PUBLICATIONS:

The NASF Washington office publishes a number of periodicals for the association and others including:

- A monthly newsletter, the *NASF Washington Update*,
- Yearly NASF Resolutions,
- Periodic Position Statements and Reports,
- A bi-annual State Forestry Statistics report,
- A BMP library with links to forestry Best Management Practices sites (see below), and
- An assessment of forest sustainability on state & private forest land: First Approximation Assessment Project (see below).

These publications are all accessible [online]: <<http://www.stateforesters.org/index.html#WHO>>.

EXAMPLE REPORTS:

The following reports are available [online]: <<http://www.stateforesters.org/pubs.html>>:

State Nonpoint Source Pollution Control Programs for Silviculture Sustained Success. NASF 2000 Progress Report, G.G. Ice and G.W. Stuart (May 2001)

Costs Containment on Large Fires: Efficient Utilization of Wildland Fire Suppression Resources. NASF Forest Fire Protection Committee (July 2000).

Silvicultural Best Management Practices (BMPs): A Growing Importance. Database of BMP Web Links (2000).

Guide to State Forestry Laws: State Constitution and Statute Search/Index Links on the Web (2000).

First Approximation Assessment Project (FAAP): Assessment of Criteria & Indicators of

Sustainable Forest Management (1999).

Part V. U.S. Dept. of Agriculture – Forest Service

The U.S. Department of Agriculture Forest Service is a federal agency that manages public lands in national forests and grasslands. The Forest Service is also the largest forestry research organization in the world, and provides technical and financial assistance to state and private forestry agencies. Gifford Pinchot, the first Chief of the Forest Service, summed up the mission of the Forest Service: “to provide the greatest amount of good for the greatest amount of people in the long run.” Information is available [online]: <<http://www.fs.fed.us/>>.

The Forest Service provides the scientific and technical knowledge necessary to protect and sustain the Nation’s natural resources on all lands, providing benefits to people within the capabilities of the land. Research is conducted through a network of forest and range experiment stations and the Forest Products Laboratory. Publications of Forest Service research results are available through the regional research stations (see **V.A** and **V.B** below). State and Private Forestry also published information relevant to sustainable forest management (see **V.C** below).

Sustainable Forest Management. On its website the Forest Service describes its involvement in Sustainable Resource Management [online]: <<http://www.fs.fed.us/sustained/msie4.html>>. The agency plans to produce a report in 2003 on sustainable forests, based upon the framework of the Montreal Process Criteria and Indicators. There are plans to collaborate with other federal agencies in this effort. This Internet site also provides an index of Forest Service statements about sustainable resource management and links to other sites [online]: <<http://www.fs.fed.us/sustained/siteindex.html>>.

V.A. Rocky Mountain Research Station

The Rocky Mountain Research Station conducts research throughout the Nation with emphasis on the Rocky Mountains, Great Basin, Great Plains, and the Southwest. They develop scientific information and technology to improve management, protection, and use of the forests and rangelands. The information they provide helps natural resource managers and policymakers formulate wise natural resource policy. Research is designed to meet the needs of National Forest managers, federal and state agencies, public and private organizations, academic institutions, industry, and individuals. Their scientists cooperate with other researchers and resource managers to accelerate solutions to problems involving ecosystems, range, forests, water, recreation, fire, resource inventory, land reclamation, community sustainability, forest engineering technology, multiple use economics, wildlife and fish habitat, and forest insects and diseases. Studies are conducted cooperatively, and applications may be found worldwide.

PUBLICATIONS [online]: <<http://www.fs.fed.us/rm/main/pubs/electronic.html>> (PDF):
Forest Health Monitoring in the Interior West: A baseline summary of forest issues, 1996-1999.
Gen. Tech. Rep. RMRS-GTR-75, P. Rogers, D. Atkins, M. Frank, and D. Parker, Douglas.
(2001).

Mountain Pine Beetle Attack in Ponderosa Pine: Comparing Methods for Rating Susceptibility.

- RMRS-RP-26, D.C. Chojnacky, B.J. Bentz, and J.A. Logan (2000).
Watershed Management Contributions to Land Stewardship: A Literature Review.
RMRS-GTR-71, M.B. Baker, Jr., P.F. Ffolliott, C.B. Edminster, K.L. Mora, and M.C. Dillon,
compilers (2000).
- Evaluating the Effectiveness of Postfire Rehabilitation Treatments. RMRS-GTR-63, P.R.
Robichaud, J.L. Beyers, and D.G. Neary (2000).
- Assessment and Response to Bark Beetle Outbreaks in the Rocky Mountain Area. Report to
Congress from Forest Health Protection, Washington Office, Forest Service, U.S. Department of
Agriculture. Gen. Tech. Rep. RMRS-GTR-62, S. Samman and J.T. Logan, tech. eds. (2000).
- White Pine in the American West: A Vanishing Species—Can We Save it? RMRS-GTR-35, L.F.
Neuenschwander, J.W. Byler, A.E. Harvey, G.I. McDonald, D.S. Ortiz, H.L. Osborne, G.C.
Snyder, and A. Zack (1999).
- Ecology and Conservation of Lynx in the United States. RMRS-GTR-30, L.F. Ruggiero, K.B.
Aubry, S.W. Buskirk, G.M. Koehler, C.J. Krebs, K.S. McKelvey, and J.R. Squires (1999).

V.B. Pacific Northwest Research Station

The mission of the Pacific Northwest Research Station is to serve society by improving understanding, use, and management of natural resources. Headquartered in Portland, Oregon, the Pacific Northwest Research Station is one of eight such USDA Forest Service Research facilities that were established to evaluate and disseminate information and technology to improve management and use of natural resources. This Station's research is organized into seven programs conducted at ten locations, including Oregon and Washington.

PUBLICATIONS;

- All of following publications are available [online]: <www.fs.fed.us/pnw/pubs.htm> (PDF):
- Second Proceedings of IUFRO Division Five Research Group 5.12: Sustainable Production of
Forest Products 2000. PNW-GTR-520, R.J. Barbour and A.H.H. Wong, tech. eds. (2001).
- Forest Roads: A Synthesis of Scientific Information. PNW-GTR-509, H. Gucinski, M.J. Furniss,
R.R. Ziemer, and M.H. Brookes (2001).
- A Method for Measuring Sediment Production from Forest Roads. PNW-RN-529, K. Kahklen
(2001).
- Effects of Forest Management on Understory and Overstory Vegetation: A Retrospective Study.
PNW-GTR-488, D.R. Thysell and A.B. Carey (2000).
- Environmental Effects of Postfire Logging: Literature Review and Annotated Bibliography.
PNW-GTR-486, J.D. McIver and L. Starr, tech. eds. (2000).
- The Effects of Thinning and Similar Stand Treatments on Fire Behavior in Western Forests Gen.
Tech. Rep. PNW-GTR-463, R.T. Graham, A.E. Harvey, T.B. Jain, and J.R. Tonn (1999).

V.C. Other USDA Forest Service Information Sources

In addition to the research experiment stations, the National Forest System, which at 191 million acres covers 8.5% of the U.S., publishes relevant information through its nine regional offices. Special projects like the Blue Mountains Natural Resources Institute also offer publications online. The State and Private Forestry branch of the Forest Service also provides some online publications.

Northern Region (Region One, Missoula MT)

PUBLICATIONS:

Health of Idaho's Forests: A Summary of Conditions, Issues and Implications. Northern Region Forest Health Protection Report No. 99-4, D. Atkins, J. Byler, L. Livingston, P. Rogers, and D. Bennett (1999), [online]: <<http://www.idahoforests.org/health1.htm>>., Region Six, Portland, OR).

Blue Mountains Natural Resources Institute (Pacific Northwest Region)

The Blue Mountains Natural Resources Institute operated from 1989-1999 as a partnership of federal and state agencies, county governments, interest groups, business, tribal governments and universities in a 14-county area of northeastern Oregon and southeastern Washington. The Institute was housed at a Forest Service facility and funded and staffed by the Forest Service. The Institute had 80 partners and sponsored a wide array of forums, conferences, technology transfer tools, and research projects. According to the former director, the Institute maintained a reputation as a source for credible, well-balanced information. Scientific studies and publications, videos, and seminars were sponsored over the years included examining log yarding methods, and prescribed burning versus tree thinning to reduce fuels.

PUBLICATIONS:

A list of publications, most with summaries, is available [online]: <<http://www.fs.fed.us/pnw/bmnri/products.htm>>.

State and Private Forestry

The Forest Service cooperates with state and local governments, forest industry companies, other private landowners, and forest users in the management, protection, and development of forest land in non-federal ownership. Activities include cooperation in urban interface fire management and urban forestry. State and Private Forestry programs are focused on Cooperative Forestry, Conservation Education, Fire & Aviation Management, and Forest Health Management, including Forest Health Protection.

PUBLICATIONS:

The following forest health management publications are available [online]: <<http://www.fs.fed.us/foresthealth/publications.html>>:

- Forest Insect & Disease Leaflets (FIDL) Publications
- Pest Alerts
- How To Publications
- America's Forest: Annual Health Update
- Forest Insect and Disease Conditions in the U.S. – Annual Reports
- Insect and Disease News Bulletins
- Bark Beetle Outbreaks in the Rocky Mountain Area

Part VI. Society of American Foresters (SAF)

The Society of American Foresters (SAF) is the national scientific and educational organization representing the forestry profession in the United States. Founded in 1900 by Gifford Pinchot, it is the largest professional society for foresters in the world. The mission of the Society of American Foresters is to advance the science, education, technology, and practice of forestry; to enhance the competency of its members; to establish professional excellence; and, to use the knowledge, skills, and conservation ethic of the profession to ensure the continued health and use of forest ecosystems and the present and future availability of forest resources to benefit society. SAF is a nonprofit organization meeting the requirements of 501 (c) (3). SAF members include natural resource professionals in public and private settings, researchers, CEOs, administrators, educators, and students.

The SAF maintains websites at the national level, and most of its state-level societies also maintain sites on the Internet.

S National SAF [online]: <<http://www.safnet.org/index.shtml>>.

S Inland Empire SAF (No. Idaho & E. Washington [online]: <<http://www.iesaf.org/>>.

S Intermountain SAF (So. Idaho) [online]: <<http://www.usu.edu/saf/>>.

S Montana SAF [online]: <<http://www.forestry.umt.edu/hosting/saf/>>.

S Oregon SAF [online]: <<http://www.forestry.org/>>.

S Washington SAF [online]: <<http://www.waforestry.org/>>.

VI.A. SAF Continuing Forestry Education (CFE)

The half-life of a college education is 7 to 10 years. In other words, in less than 10 years after graduation, a forester's professional competency could be reduced by one-half. Knowledge ages rapidly, especially with the unprecedented explosion of knowledge. Available knowledge is thought by many to double every 10 years. This leads to a serious gap between available knowledge and what we learned in college.

This gap is filled most effectively through continuing education. It has become a responsibility individuals must assume as foresters and allied professionals. The SAF offers a program of recognition for those who realize the importance of staying current through participation in continuing education courses, seminars and conferences. The SAF's Continuing Forestry Education Program (CFE) program is designed to reward and recognize those who pursue a program of continuing education and professional development.

The CFE program is nationwide, voluntary and open to members and nonmembers of SAF. It involves completing various activities geared toward personal and professional development. The hours in the SAF program may be applied towards the continuing education requirements for registration or licensing in some states. Or, the hours may be used to meet recertification requirements in SAF's Certified Forester® program (see **VI.B**).

SAF CFE COORDINATORS (2002):

Inland Empire SAF (No. Idaho & E. Wash.)

Chris C. Schnepf
W: (208)667-6426
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Intermountain SAF (So. Idaho)

Fred A. Baker, Jr.
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Email: forpest@cc.usu.edu

Oregon SAF

Michael J. Cloughesy
W: (541) 737-1605
F: (541) 737-4966
Email: michael.cloughesy@orst.edu

VI.B. SAF Certified Forester® (CF)

The Society of American Foresters (SAF) established the Certified Forester® program in 1994 to recognize, serve, and support forestry professionals. A nonprofit, scientific, and educational organization, SAF advocates wise stewardship in forest resources management and has developed a program to assess academic preparation, professional experience, continuing education, and adherence to standards of professional practice for those professionals engaged in forestry.

The term Certified Forester® is registered with the US Patent and Trademark Office and may only be used by individuals who meet certification requirements. The CF designation identifies an individual's commitment to provide quality resource stewardship. This certification, a broad-based designation, benefits all foresters regardless of employer or discipline.

The Certified Forester® program is voluntary, nongovernmental, and open to qualified SAF members and nonmembers. A CF agrees to abide by current CF requirements and procedures for certification and recertification as may be revised periodically by SAF, to maintain continuing professional development, and to conduct all forestry practices in a responsible, professional manner consistent with state and federal regulations governing environmental quality and forest management practices.

VI.C. SAF Publications

Publications of the Society of American Foresters cover the latest trends and research in forestry and natural resource management, including the latest news, research, policy issues and practices surrounding forestry and natural resource management. These include *Forest Science*, the *Journal of Forestry*, *The Forestry Source*, *Western Journal of Applied Forestry*, and the *Western Forester*. Each is highlighted in this section, with example articles. Much of the scientific information in the SAF journals is available through online services, described immediately below.

Subscription Information: SAF members receive the *Journal of Forestry* and *The Forestry Source* as part of the membership package covered by national dues. Non-members may purchase subscriptions to these publications, as indicated below.

VI.C.1. SAF Online Publishing Services

Members and non-members have online access to SAF services designed to make available the latest scientific information about forestry.

S *Forestry Online*. As part of its online publishing venture, the Society of American Foresters is pleased to announce a new offering for members. In coordination with CABI Publishing (see **VIII.C.1**), SAF members now have free access to *Forestry Online*, an Internet resource covering the bibliographic databases *Agroforestry Abstracts*, *Forestry Abstracts*, and *Forest Products Abstracts*. *Forestry Online* comprises over 165,000 fully searchable abstracts and covers more than 10 years of published material, thus making it a valuable resource for anyone working in the field of forestry. Information on how to access the database can be found in the Members Only area of the SAF website [online]: <<http://www.safnet.org/>>.

- Even if you are not an SAF member or current subscriber to an SAF journal, you may view and search the table of contents and the abstracts of all SAF publications, both current issues and those in the online archive. You may also search within other journals in the ingenta.com database. If you see an article that you wish to view in full text, you will be given a “pay per view” option. You may begin your search by clicking on the appropriate SAF journal below or search SAF and other publications through ingenta.com. [Online]: <<http://www.safnet.org/pubs/periodicals.html>>.

Neither of these services, however, provides access to the entire article.

VI.C.2. *Forest Science*

Forest Science, published quarterly, is internationally renowned as a leading forestry research journal. For more than 30 years, it has been publishing significant articles in forestry research: silviculture, soils, biometry, disease, recreation, photosynthesis, and tree physiology as well as all aspects of management and harvesting, and policy analysis. *Forest Science* also features reviews of recent publications. As the title suggests, the primary audience for *Forest Science* is forest scientists.

Subscription Information: Members: \$70 US/Canada; nonmembers \$105 US/Canada.

EXAMPLE ARTICLES:

Abstracts are available [online]: <<http://www.safnet.org/pubs/periodicals.html#ForestScience>>.

Potential Demand for Certified Wood Products in the United Kingdom and Norway. *Forest Science* 48(4):767-778, K. Viesten (November 2002).

Introduction [to special issue]: Inventory Updates and Related Topics—From Imputations to Mixed Models. *Forest Science* 47(3): 285-286, C.J. Cieszewski (Aug. 2001).

The Effect of Nitrogen Fertilization, Rock Type, and Habitat Type on Individual Tree Mortality. *Forest Science* 47(2):203-213, G. Shen, J.A. Moore, and C.R. Hatch (May 2001).

Design of Regular Landscape Fuel Treatment Patterns for Modifying Fire Growth and Behavior. *Forest Science* 47(2):219-228, M.A. Finney (May 2001).

Root Chemistry of Mature Douglas-Fir Differs by Habitat Type in the Interior Northwestern United

- States. *Forest Science* 46(4):531-536, J.A. Moore, P.G. Mika, and T.M. Shaw (Nov. 2000).
- The Economics of Prescribed Burning: A Research Review. *Forest Science* 46(3):317-321, H. Hesseln (Aug. 2000).
- Perceived Ecological Risks to Water Environments from Selected Forest Industry Activities. *Forest Science* 46(3):344-356, N. Cavanagh, T. McDaniels, L. Axelrod, and P. Slovic (Aug. 2000).
- Dynamics of Coarse Woody Debris Placed in Three Oregon Streams. *Forest Science* 46(1):13-22, R.F. Keim, A.E. Skaugset, and D.S. Bateman (Jan. 2000).
- Projecting Timber Inventory at the Product Level. *Forest Science* 45(1):226-231, L. Teeter and X. Zhou (Jan. 1999).
- Spatially Optimizing Wildlife Habitat Edge Effects in Forest Management Linear and Mixed-Integer Programs. *Forest Science* 45(2):249-258, M. Bevers and J. Hof (Apr. 1999).
- Ensuring the Compatibility of Aquatic Habitat and Commodity Production Goals in Eastern Oregon with a TABU Search Procedure. *Forest Science* 44(1):96-112, P. Bettinger, J. Sessions, and N. Johnson (Jan. 1998).

VI.C.3. *Journal of Forestry*

The *Journal of Forestry*, published eight times a year, is the premier scholarly journal in forestry. It has received several national awards for excellence. The mission of the *Journal* is to advance the profession of forestry by keeping professionals informed about significant developments and ideas in forest science, natural resources management, and forest policy. All members of the Society of American Foresters receive the *Journal* as a benefit of membership. Individual and institutional subscriptions are also available. The *Journal* accepts display advertising.

Subscription Information: Members, free with SAF membership; non-members: \$82 US/Canada.

A title and subject matter index of articles for an entire year appears in each December issue of the *Journal of Forestry*. For example, in 2001 some selected subject groupings (and number of articles in 2001) were: Best Management Practices (2); Biodiversity (4); Certification, Forest Management (5); Clearcutting (2); Economics (7); Fire (3, plus one entire issue); Genetic Modification (2); Geographic Information Systems (3); Inventory (5); Modeling (3); Nontimber Forest Products (4); Plantation Forestry (4); Policy (15); Prescribed Burning (2); Silviculture (3); Sustainable Forestry (10, plus one entire issue); Water Resources (2); Wildlife (2).

EXAMPLE ARTICLES:

- Inventory-Based Forest Health Indicators: Implications for National Forest Management. *Journal of Forestry* 101(2):11-17, J. O'Laughlin, and P.S. Cook (March 2003).
- Fuel Treatments at the Wildland-Urban Interface: Common Concerns in Diverse Regions. *Journal of Forestry* 100(1):15-21, G.J. Winter, C. Vogt, and J.S. Fried (Jan./Feb. 2002).
- Forest Sustainability: A Discussion Guide for Professional Resource Managers. *Journal of Forestry* 99(2):8-28, DW. Floyd, S.L. Vonhof, and H.E. Seyfang (Feb. 2001).
- Autopsy of a Forestry Ballot Initiative: Characterizing Voter Support for Oregon's Measure 64 [reduced-clearcutting and chemical use]. *Journal of Forestry* 99(5):20-27, J.D. Kline (May 2001).
- Conservation Biology and Forest Certification: Working Together Toward Ecological

- Sustainability. *Journal of Forestry* 99(8):18-25, N.R. Brown, R.F. Noss, D.D. Diamond, and M.N. Myers (Aug. 2001).
- What is the Price of Catastrophic Wildfire? *Journal of Forestry* 99(11):9-17, D.T. Butry, D.E. Mercer, J.P. Prestemon, J.M. Pye, and T.P. Holmes (Nov. 2001).
- Public Perceptions of Clearcutting. *Journal of Forestry* 98(12): 4-10, J.C. Bliss (Dec. 2000).
- Presenting Landscape-Scale Forest Information: What Is Sufficient and What Is Appropriate? *Journal of Forestry* 98(12):21-27, J.S. Wilson and R.J. McGaughey (Dec. 2000).
- Managing Forests for Water Yield: The Importance of Scale. *Journal of Forestry* 98(12):15-19, D.D. Huff, B. Hargrove, M.L. Tharp, and R. Graham (Dec. 2000).
- Carbon Sequestration: A Working Example in Oregon. *Journal of Forestry* 98(9):32-37, J.F. Cathcart (Sept. 2000).

VI.C.4. *The Forestry Source*

The Forestry Source, the newspaper of the Society of American Foresters, offers timely news for forest resource professionals. Published 12 times a year, it covers the latest forestry policy issues, developments in forestry research and technology, SAF programs and activities, and more. Each issue features a “How to ...” article.

Subscription Information: Members, free with SAF membership; non-members, \$20 US/Canada.

EXAMPLE ARTICLE (with partial abstract):

How to... Build a Vented Ford. *The Forestry Source*, S. Wilent (Feb. 2002). The challenge in building a stream crossing is coming up with a design that supports the traffic using the crossing, is able to withstand the elements over time, meets environmental regulations and best practices rules, and is affordable. One type of crossing that can meet all of these criteria in many situations is a vented ford. . . .

VI.C.5. *Western Journal of Applied Forestry*

The SAF publishes three regional journals of applied forestry that focus on research, practice, and techniques targeted to foresters and allied professionals in the northern, southern, and western regions of the United States. The *Western Journal of Applied Forestry (WJAF)* covers the western U.S., including Alaska, and British Columbia.

Subscription Information: Members, \$45 US/Canada; non-members: \$65 US/Canada.

EXAMPLE ARTICLES:

- Stocking Control Procedures for Multiaged Ponderosa Pine Stands in the Inland Northwest. *WJAF* 18(1):5-14, K.J. O’Hara, N.I. Valappil, and L.M. Nagel (Jan. 2003).
- Effects of Varying Levels and Patterns of Green-Tree Retention on Amount of Harvesting Damage. *WJAF* (17(4):202-206, J.R. Moore, et al. (Oct. 2002).
- Stand Responses Following Partial Cutting in Western Montana. *WJAF* 17(1):37-45, C.R. Shwalm and K.S. Milner (Jan. 2002).
- Damage to Residual Trees by Four Mechanized Harvest Systems Operating in Small-Diameter,

- Mixed-Conifer Forests on Steep Slopes in Northeastern Washington: A Case Study. *WJAF* 17(1):14-22, A. Camp (Jan. 2002).
- A Literature Review on the Environmental Effects of Postfire Logging. *WJAF* 16(4):159-168, J.D. McIver and L. Starr (Oct. 2001).
- Declining Woody Vegetation in Riparian Ecosystems of the Western United States. *WJAF* 16(4):169-181, R.A. Obedzinski, C.G. Shaw, and D.G. Neary (Oct. 2001).
- Can Selection Thinning Convert Even-Age Douglas-Fir Stands to Uneven-Age Structures? *WJAF* 16(1):35-43, M. Miller and B. Emmingham (Jan. 2001).
- Riparian Management Area Condition for Timber Harvests Conducted Before and After the 1994 Oregon Water Protection Rules. *WJAF* 15(3):147-153, A.B. Hairston-Strang and P.W. Adams (2000).
- Shifting Public Values in Forest Management: Making Sense of Wicked Problems. *WJAF* 14(1):11-17, B.A. Shindler and L.A. Cramer (1999).

VI.C.6. *The Western Forester*

The Western Forester is published bimonthly by the World Forestry Center for the Oregon, Washington State, Inland Empire, and Alaska Societies of American Foresters. Each issue revolves around a particular theme. Recent themes have included collaborative processes, international forestry, computers in forestry, forest health and fuel treatment (all 2001); the future of forestry, university-based forestry research cooperatives, forestry education, riparian area management, recreation area management (all 2000); vegetation management (herbicides), dirt forestry (silviculture) (all 1999). Available [online]: <<http://www.forestry.org/publications/publications.html>>.

Subscription Information: *The Western Forester* is provided to members of the Oregon, Washington State, Inland Empire, and Alaska Societies of American Foresters.

VI.D. SAF Position Statements

The Society of American Foresters provides relevant science-based information to policymakers and the media at the national and local level through SAF Positions Statements. These are developed through a formal process and approved for 5-year periods by SAF Council, the society's decision-making body elected from the membership. These efforts are making a measurable difference on legislation and on media coverage related to natural resource issues. Following are pertinent examples of the dozens of SAF Position Statements. The full statements include not only the position component below, but also a synopsis of the issue being addressed and pertinent background, including a review of scientific information. SAF Position Statements are available [online]: <<http://www.safnet.org/policy/statements.htm>>.

VI.D.1. Clearcutting. The clearcutting method of forest stand regeneration plays an important role in sustainable forest management and can be used effectively to produce desired forest conditions. It can be the best silvicultural method for regenerating shade-intolerant tree species, controlling forest insects and pathogens, and achieving other management objectives. As with any land management practice, it can have undesirable effects if it is improperly implemented or applied in

the wrong location. Clearcutting is not appropriate in situations where, because of overriding resource sensitivities (e.g, visual sensitivity or landslide hazard), it is likely to result in significant adverse impacts. Except for such situations, however, clearcutting should be among the silvicultural methods considered for forest regeneration. It should only be applied by professional foresters or other qualified forest practitioners. The Society of American Foresters supports the continued development of forest practice standards to ensure the proper use of clearcutting. (National SAF Position Statement, expires 9/23/07 unless renewed.)

VI.D.2. Herbicide Use in Forest Management. The Society of American Foresters supports the judicious use of herbicides in forest management as part of an integrated vegetation management strategy. Herbicides registered by the U.S. Environmental Protection Agency (EPA) and applied according to label directions and federal and state regulations are an environmentally safe option for managing undesired vegetation. (National SAF Position Statement, expires 12/7/06 unless renewed.)

VI.D.3. Roads in Forests. The Society of American Foresters believes forest roads, properly constructed and maintained, are a critical part of forest management, emergency response, and recreation use, and are an increasingly important part of the rural transportation system. Roads should be constructed and maintained in an environmentally sound manner following standards, laws, and regulations. With the exception of wilderness and other protected forests, forest roads are an important asset in all forest ownerships, including both public and private forests, and should be seen as a capital investment.

The environmental laws and regulations that govern the activities of public natural resource agencies and private forest landowners are intended to protect against environmental degradation that can result from poorly planned or constructed forest roads. Decisions about roads in public forests should be made at the local level, under an overarching legal framework. The manager on the ground, with input from the public, is able to make decisions about roads based on existing laws and regulations, the values the public holds for the forest, and the needs of the individual forest. Local concerns should be carefully considered when any public agency decides to modify the use of a road; at a minimum, the public should be notified.

Impacts on private, state, county, tribal, and other ownerships adjacent to federal lands should also be considered. This is particularly true when the federal government is legally required to allow access across federal lands to other ownerships. When granting such access, the building of a road should not be linked to the forest management practices of the non-federal landowner. (National SAF Position Statement, expires 6/13/04 unless renewed.)

VI.D.4. Timber Harvesting on Federal Lands: An Essential Tool for Sustainable Forest Management. The Society of American Foresters supports commercial and non-commercial timber harvesting on federal lands allocated for such use through land and resource management planning. Current harvest levels on federal lands are insufficient to maintain forest health, to meet the goals for hazardous fuel reduction to reduce wildfire risk in the nation's forests and provide economic and community benefits. Current laws offer more than enough protection to sustain the full range of forest values on public lands. Timber harvesting is a legitimate use of national forests and BLM

public lands, as the multiple-use mandates make clear. (National SAF Position Statement, expires 12/7/06 unless renewed.)

VI.D.5. Forestry's Role in the Protection of Pacific Salmon Habitat in Forested Watersheds.

The Society of American Foresters (SAF) endorses the need to protect threatened or endangered salmonid stocks as intended by state and federal endangered species acts. The SAF desires to see Pacific salmonid species recover to sustainable populations. The SAF favors a balanced approach to endangered species protection that takes into account sound and reputable science, as well as the economic and social implications of any management or recovery plan. The SAF believes that habitat quality, over which foresters have some influence, is only one of many factors affecting salmonid recovery.

Existing voluntary and regulatory programs are effective throughout much of the vast area occupied by Pacific salmonid populations. Where these programs are not effective SAF strongly encourages resource management and regulatory agencies to work together cooperatively to ensure Best Management Practices (BMPs) are redesigned to work properly. The SAF advocates the use of proven forest practices in all forestry operations, not just in those areas that have been designated as critical habitat for Pacific salmonids or any other aquatic or terrestrial species. The SAF supports the use of BMPs as defined in the Clean Water Act (Section 319). The SAF believes Endangered Species Act (ESA) recovery plans for salmonids should recognize state forest practice programs and the efforts of states to implement the Clean Water Act through state water quality management programs. They should also encourage federal resources management and regulatory agencies to work cooperatively with the states and landowners to protect water quality and fish habitat. Examples of cooperative efforts include the coastal salmon restoration initiatives in Oregon and the development of Habitat Conservation Plans by companies and state forestry agencies. (Regional Position Statement of the SAF units in Alaska, California, Idaho, Oregon and Washington, expires 9/8/03 unless renewed.)

VI.D.6. Fuel Management Can Reduce Wildfire Risks. The Inland Empire Society of American Foresters (IESAF) advocates actively managing the public and private forests of eastern Washington and northern Idaho to reduce fire hazards and fire danger. Many forests in the region have excessively high levels of fuels compared to historic conditions, when fire played a more prominent ecological role. The current potential for unnaturally severe and intense wildfires poses high risks to human life, property, and a variety of ecological, economic, and social values. These risks can be reduced by taking a comprehensive and active silvicultural approach to fuel management. The appropriate tools for fuel management are prescribed burning and mechanical fuel treatment, including fuel removal by thinning and logging, or timber harvesting. (Inland Empire SAF Position Statement, expires 2/12/06 unless renewed.)

Note: The Oregon SAF has published *A Professional View of Forestry Issues in Oregon: Position Statements of the Oregon Society of American Foresters*, a 16-page booklet in PDF format [online]: <<http://www.forestry.org/pdf/position.pdf>>.

Part VII. Forest Products Industry Associations

Two forest products industry associations are featured herein. One (AF&PA) is the industry's trade association, another (NCASI) is a research organization funded by the industry to produce scientific reports about managing the industry's environmental impacts.

VII.A. American Forest & Paper Association (AF&PA)

The American Forest & Paper Association (AF&PA) is the national trade association of the forest, pulp, paper, paperboard and wood products industry. It represents member companies engaged in growing, harvesting and processing wood and wood fiber, manufacturing pulp, paper and paperboard products from both virgin and recycled fiber, and producing engineered and traditional wood products.

AF&PA was founded on January 1, 1993, as a result of a merger between the National Forest Products Association and the American Paper Institute. From its first day of operation, AF&PA has met the expectations of its founders. The association's inclusive "big tent" philosophy has successfully united the various sectors of the forest products industry, providing an effective and influential presence in the public policy arena on all matters of industry concern. AF&PA's voice is heard by the Administration, Congress, federal regulatory agencies and state legislatures. In addition, AF&PA has taken its leadership beyond the boundaries of the U.S. in its efforts to bring the world's forest products industries together and remove artificial barriers to competition.

AF&PA's members include manufacturers of over 80 percent of the paper, wood and forest products produced in the United States. For companies as varied as small non-industrial private landowners, large multi-product producers and family-run mills, AF&PA acts as the clearinghouse for statistical information, the leading force in technical, regulatory and policy issues, and the national voice for the forestry, wood and paper industries.

AF&PA is constantly working to return value to our members through innovative and effective programs that sustain and advance the industry's domestic and global competitiveness. AF&PA is committed to improving the environment as well as being a part of creating a better tomorrow.

PUBLICATIONS:

AF&PA does not produce or publish scientific information, but does have some publications on the industry facts and figures available for purchase.

The next two subsections feature AF&PA's SFI Program and its interests in Forest Management.

VII.A.1. Sustainable Forestry Initiative (SFI)

On October 14, 1994, members of the American Forest & Paper Association agreed to adhere to a set of forestry principles that would meet the needs of the present without compromising the ability of future generations to meet their own needs. These principles call for a land stewardship ethic which integrates the reforestation, nurturing, and harvesting of trees for useful products with the

conservation of soil, air and water resources, wildlife and fish habitat, and forest aesthetics.

While this action was revolutionary in its scope, it was built on the practices of many in the forest products industry who have long recognized the need to promote sustainable forestry on all forestlands. The increased sensitivities of many Americans to the environmental impacts of modern forestry coupled with the industry's recognition of the need to sustain forest values led to the development of the formal SFI® program. The program is based on the premise that responsible environmental policy and sound business practices can be integrated to the benefit of companies, shareholders, customers and the people they serve.

The SFI program was conceived as part of the forest products industry's strategic vision to balance society's need for forest products with stewardship of trees, streams, wetlands, soils, plants and animals that are all a part of forested environments. Because of improved forest management, there is more wood growing on our members' lands, across the country today, than at any time in the past century—an important fact given the public's rapidly increasing demands for wood products. Through the SFI program, we can continue to reward investors, create jobs, and extend sound forest management throughout our nation's forests for the benefit of generations to come.

In September 2000, an independent multi-stakeholder Sustainable Forestry Board (SFB) was established with the full responsibility of managing the SFI program standard and verification procedures and SFI program compliance. The new SFB, now seeking status as an independent non-profit organization, is comprised of 15 members, two-thirds of whom are from outside interest groups such as environmental and conservation groups.

Many links provide more information about how the SFI program is working to improve and expand the forests of North America.

PUBLICATIONS:

A number of publications, including how the SFI program promotes wildlife habitat and water quality, are available on AF&PA's website.

As cited in III.C.2 above, a study by the Oregon State University College of Forestry published in December 2001 compares not only the SFI Program but also the Forest Stewardship Council (FSC) certification program to Oregon legal requirements. The U of I PAG (see III.A.5 above) is currently working on a report that will do the same thing in Idaho.

VII.A.2. Forestry

The relationship between a healthy, productive forest and the forest and paper industry is elementary: no forest, no industry. According to the AF&PA, history and science demonstrate that an efficient industry can coexist with a healthy environment. Today, the U.S. forest products industry is underscoring that point by protecting wildlife and forest health at the same time it harvests trees to manufacture the products Americans want and need.

The AF&PA identifies reduced access to fiber as a key issue causing the erosion of the competitive

position of the U.S. forest products industry. (For more information about the competitive challenges to the forest products industry, a clickable link is provided.) The industry depends on healthy forests to provide us with the fiber we need to keep us in business. The AF&PA believes we can both have a strong, healthy forest products industry, while also conserving our nation's most valuable natural resource – our forests.

The AF&PA's goal is to sustain and expand a renewable resource – our forests – and meet future consumer demand at competitive prices while, at the same time, respecting the diverse demands imposed by society, including the rational protection of sanctuary and habitat.

The 1920s saw dire predictions that demand for lumber, paper, and other wood products would fully deplete the country's supply of trees by 1945. Not only have those predictions proved untrue, but today the United States has 20 percent more trees than it did on the first Earth Day celebration more than 25 years ago. Clearly, however, major differences of opinion continue to exist across the forest management spectrum. AF&PA's goal is to establish common ground, and work with all concerned to establish mutually acceptable policies and practices.

In this section of their website the AF&PA identifies current events that are shaping the industry; study public policy issues affecting the management of public and private forests; access the most current data on the status of the forests of the United States; and learn how the forest products industry is working through one of the world's largest sustainable forestry and certification programs to promote sustainable forestry practices to all forestland owners.

VII.B. National Council for Air & Stream Improvement (NCASI)

NCASI has been an environmental resource for the forest products industry since 1943. NCASI's mission is to address, through a highly focused research program, the environmental information needs of the forest products industry. NCASI's research program is primarily funded by its member companies, which collectively produce over 95% of the pulp and paper and a sizeable fraction of the wood products manufactured in the United States. While the results of NCASI's research are used extensively within the industry, they also find frequent use among academic researchers, regulatory agencies, and others needing reliable environmental data and information on the forest products industry. Some of this information is available [online]:<<http://www.ncasi.org/>>.

NCASI was originally established to assist the pulp and paper industry in addressing wastewater treatment issues. As the environmental issues facing the industry multiplied, NCASI's research program broadened, most recently in the 1970s with the addition of research to address environmental issues associated with forest management practices and the manufacture of solid wood products. Today, NCASI serves as an environmental resource for the forest products industry in its broadest definition, addressing a myriad of issues of importance to this industry.

PUBLICATIONS

Forestry Environmental Program News is published as a service to NCASI members, staff and the general public. This newsletter is directed toward professionals associated with the industry's forestry programs, and covers such topics as sustainable forestry practices and wildlife protection.

The bi-weekly newsletter is available [online]: <<http://www.ncasi.org/forestry/FEPNindex.stm>>.

The Technical Bulletin series is NCASI's primary publication. These bulletins describe the results of the organization's research studies. Approximately 35 Technical Bulletins are published each year. Since 1943, NCASI has published more than 800 titles in this series, which represents a major contribution to the body of technical literature on environmental quality management. A 45-page chronological list of these reports ranges from "Factors Affecting Fish Migration" published in 1946 to the 2001 report on "Accommodating Birds in Managed Forests of North America: A Review of Bird-Forestry Relationships" and a 2002 report on "Turbidity: A Literature Review on the Biological Effects of Turbidity on Aquatic Organisms and an Assessment of Turbidity in Two Long-term Receiving Water Study Rivers in Oregon" This list is available [online]: <<http://www.ncasi.org/publications/TB-TABLE.pdf>>.

Part VIII. Research Journals

There are literally hundreds of journals that are in the business of publishing refereed or peer-reviewed results of research related to sustainable forest management. Only a few are mentioned in this section.

VIII.A. Forestry Research Journals

In addition to the Society of American Foresters research journals highlighted in **VI** above, several other journals are worth mentioning because much of their content is directly related to sustainable forest management. Among them are the *Journal of Sustainable Forestry, Forest Ecology and Management*, and the *Canadian Journal of Forest Research*, which is the research journal of the Canadian Institute of Forestry, the professional counterpart of the Society of American Foresters.

VIII.B. Other Research Journals

The scope of topics in sustainable forest management is so broad that confining the search for information only to sources with the word forest or forestry in them will eliminate a considerable amount of relevant information. While we might hope that researchers writing in forestry journals would make available to foresters adequate summaries of information available elsewhere, such may not always be the case.

In addition to journals that focus on forest management are the following potential contributors of information pertinent to sustainable forest management. Most of these are research journals of professional societies of natural resources scientists and managers: *Journal of Soil and Water Conservation, Water Resources Research, Journal of Wildlife Management, Wildlife Society Bulletin*, and *Conservation Biology*.

VIII.C. Databases for Journal Articles

To help researchers and practitioners cope with the information explosion, bibliographic databases

provide the opportunity to search for scientific journal articles by keywords in the title of the articles. Some of these commercial services also provide a one paragraph abstract of the articles, highlighting its findings. Complete articles are provided to subscribers to the service. Check online for the cost of such service.

VIII.C.1. CABI Publishing

CAB International (CABI) is a global not-for-profit organization specializing in sustainable solutions for agricultural and environmental problems. One of its branches, CABI Publishing, is a leading international, not-for-profit publisher in applied life sciences, including animal science, nutrition, integrated crop management, plant sciences and forestry. One of CABI's long-established print publishing activities include a substantial book and reference work list, and an expanding primary and review journal program. CABI's bibliographic databases are renowned for combining authoritative selection with comprehensive coverage and expert indexing. CABI Publishing has always been at the forefront of electronic publishing, from the advent of online and CD-ROM to the more recent introduction of multimedia and Internet products.

One of CABI's products is TREECD, which scans hundreds of serial publications, including the leading research journals. Another product is CAB ABSTRACTS is an online bibliographic database with abstracts available through various service providers. Access may be gained through conventional telecommunication systems or via the Internet (Telnet). All these providers now offer access through the World Wide Web with user-friendly search interfaces. Another product is CABI Online Abstract Journals, all of which are available on the Internet as fully searchable archival datasets with a minimum 10 year back file. Another product is *Forestry Online*, which the Society of American Foresters (see **VI.C.1**) offers to its members for free.

For more information see [online]: <<http://www.cabi-publishing.org/>>.

VIII.C.2. AGRICOLA

AGRICOLA (AGRICultural OnLine Access) is a bibliographic database of citations to the agricultural literature created by the National Agricultural Library (NAL) and its cooperators. The NAL is part of the U.S. Department of Agriculture.

Production of these records in electronic form began in 1970, but the database covers materials in all formats, including printed works from the 15th century. The records describe publications and resources encompassing all aspects of agriculture and allied disciplines, including animal and veterinary sciences, entomology, plant sciences, forestry, aquaculture and fisheries, farming and farming systems, agricultural economics, extension and education, food and human nutrition, and earth and environmental sciences.

Although AGRICOLA does not contain the materials, thousands of AGRICOLA records are linked to online full-text documents, with new links being added every day. AGRICOLA is searchable on the World Wide Web at <<http://www.nal.usda.gov/ag98>>. For information on how to obtain library materials from the National Agricultural Library (NAL), see NAL's Document Delivery Services

website at the same address.

Part IX. Other Forestry Organizations

Besides the Land Grant Universities, state and federal forestry agencies, professional associations, industry trade associations, and research journals, there are other organizations that provide forestry information but do not fit neatly into other categories. Several provide information relevant to sustainable forest management in the Inland Northwest region.

IX.A. Western Forestry and Conservation Association

The Western Forestry and Conservation Association offers high quality continuing education workshops and seminars for professional foresters throughout Oregon, Washington, Idaho, Montana, Northern California, and British Columbia. A schedule of upcoming events are available [online]: <<http://www.westernforestry.org/>>.

The Association serves as the coordinating organization for the Woodland Fish and Wildlife Project. It is a cooperative effort between state and federal agencies and universities to provide information on fish and wildlife management to private woodland owners and managers. Cooperators are:

- Western Forestry Conservation Association
- World Forestry Center
- Oregon Department of Forestry
- Washington State Department of Natural Resources
- Oregon State University Extension Service
- Washington State University Cooperative Extension
- University of Washington College of Forest Resources
- Oregon and Washington Association of Conservation Districts
- Oregon Small Woodlands Association
- Washington Farm Forestry Association
- Oregon Department of Fish and Wildlife
- Washington Department of Fish and Wildlife
- USDA Natural Resource Conservation Service
- US Fish and Wildlife Service
- USDA Forest Service

Organizations involved in this project have cooperatively produced publications that serve as practical guides to woodland owners. The following publications are currently available in hard copy and PDF format. Each is intended to be complete in itself. Users may find it convenient to collect all publications in this series in a three ring binder to form a permanent reference file. Woodland Fish and Wildlife Project publications range from an overview of fish and wildlife opportunities on woodland properties to specific publications concerning techniques for managing individual species. Linked items are available for download in PDF format [online]: <<http://www.dfw.state.or.us/ODFWhtml/Woodland/Woodland.html>>.

Beaver, Muskrat and Nutria on Small Woodlands
Coastal Douglas Fir Forests And Wildlife
Hawk, Eagle and Osprey Management On Small Woodlands
Is There A Place For Fish And Wildlife In Your Woodland?
Managing Deer on Small Woodlands
Managing Forest Habitats for Migrant Songbirds
Managing Ponderosa Pine Woodlands For Fish And Wildlife
Managing Small Woodlands For Cavity Nesting Birds
Managing Small Woodlands For Elk
Managing Small Woodlands For Grouse
Managing Western Juniper for Wildlife
Quail On Small Woodlands
Riparian Areas: Fish and Wildlife Havens
Trout In Small Woodland Areas
Wetlands As Varied As Our Region
Wildlife On White Oaks Woodlands
Wood Ducks on Small Woodlands

IX.B. Idaho Forest Products Commission

The Idaho Forest Products Commission (IFPC) was created in 1992 by an act of the Idaho Legislature. The purpose of the Commission is to “promote the economic and environmental welfare of the state by providing a means for the collection and dissemination of information regarding the management of the state’s public and private forest lands and the forest products industry.” IFPC provides a variety of statewide communications activities, educational programs and informational materials to educate specific audiences such as decision makers, educators and students as well as the general public about the need for proper forest management.

PUBLICATIONS:

Forest Fires in Idaho. [Online]: <<http://www.idahoforests.org/fire.htm>>.
Forests, Fires, and Elk: Logging for Healthy Habitat. *Bugle* (magazine of the Rocky Mountain Elk Foundation) Spring 1996, [online]: <<http://www.idahoforests.org/elk.htm>>.
Forestry’s Impact on the Idaho Economy. [Online]: <<http://www.idahoforests.org/money.htm>>.
What is a Healthy Forest? [Online]: <<http://www.idahoforests.org/health1.htm>>.
Forest Health and Conditions. [Online]: <<http://www.idahoforests.org/health.htm>>.
Idaho Forest Health Conditions – 2002 Update, J. O’Laughlin, University of Idaho. [Online]: <<http://www.idahoforests.org/images/pdf/contrib958.pdf>>.

IX.C. Forest Stewardship Council – U.S. (FSC-US)

The FSC promotes responsible forest management globally by certifying forest products that meet the most rigorous standards in the world. The organization brings industry, environmentalists, and community groups together to promote practical solutions that meet its diverse stakeholders’ needs. The organization was founded in 1993 by environmental groups, the timber industry, foresters, indigenous peoples and community groups from 25 countries.

The FSC in the United States is backed by 14 major environmental organizations (the Nature Conservancy, World Wildlife Fund, Sierra Club and others) and by major businesses (Home Depot, Lowes, Anderson Windows).

The FSC standards encourage environmentally appropriate, socially beneficial and economically viable management of the world's forests. FSC's Principles and Criteria are the basis for defining responsible forestry and for evaluating and accrediting certifiers.

Consumers purchasing products bearing the FSC label can be assured that their wood product comes from a forest that has been responsibly managed to FSC standards.

The FSC US office is located in Washington, D.C, and has a national presence through the work of its volunteer board with three representatives each from the economic, social and environmental chambers. It also works through its regional standards coordinators, and FSC members located throughout the U.S.

Information is available [online]: <<http://www.fscus.org/>>, now featuring Jennifer Lopez [online]: <http://www.fscus.org/press_center/breaking_news/press_releases/jennifer_lopez.html>.

PUBLICATIONS:

The FSC-US does not produce or provide scientific publications.

Part X. A Systematic Approach for Acquiring Information about Sustainable Forest Management Practices at the Firm Level

These suggestions are offered for firm-level organizations desiring to increase the information base available to their foresters regarding sustainable forest management practices. The first step would be assigning responsibilities to someone for maintaining a forest science library. The ideal person would have a graduate degree in forest resource management, including course work in watershed management and wildlife management, be an active member of the Society of American Foresters, and be expected to spend at least one half-day per week on the following tasks.

The objective of these tasks is to not only create a forest science library in support of sustainable forest management, but also to ensure that the information is readily accessible to everyone in the organization in a verifiable manner that might satisfy third-party certifiers.

1. Using then topical outline in **II.B** of this document, create a series of three-ring subject matter binders. Identify and acquire publications about the topics.* Circulate the publications to appropriate persons within the organization along with a cover sheet checklist. After it has circulated, place the publication in the appropriate notebook.
3. Periodically, perhaps each quarter, update the publication lists in the outline by systematically searching the Internet for titles and abstracts of new publications in each of the subject matter categories. Those of relevance to the organization can be acquired, circulated, and added to the notebooks in the library.
4. Develop a checklist that can be used each quarter to document that these tasks have been accomplished.
5. Each quarter, circulate the new information (abstracts and articles) throughout the forestry organization, with a checklist cover sheet indicating that each person has had the opportunity to read the information.
6. Some method of verification that foresters are assimilating the information may be desirable. One approach would be to develop a simple question based on the findings in a selected article that is particularly relevant, and informally ask foresters the question. Results could be recorded. If this approach indicates that foresters are not assimilating the information as expected, formal training sessions may be necessary.

* This document should demonstrate that reliance solely on downloading information from the Internet will only begin to establish a credible library of scientific information. The publications suggestions by the lists herein only provide a starting point. The most current and highest quality scientific information is available in research journals and provided to subscribers, but one can become aware of relevant articles by systematically searching the Internet either by looking at the table of contents and sometimes abstracts of particular journals, or by searching bibliographic databases.