

Sustaining the People's Lands

Recommendations for Stewardship of the
National Forests and Grasslands
into the Next Century

Committee of Scientists
March 15, 1999

U.S. Department of Agriculture
Washington, D.C.

National Forests are made for and owned by the people. They should also be managed by the people. They are made not to give the officers in charge of them a chance to work out theories, but to give the people who use them and those who are affected by their use a chance to work out their own best profit. This means that if national forests are going to accomplish anything worthwhile, the people must know all about them, must take an active part in their management.

Gifford Pinchot, Chief of the Forest Service (1907)

Right up front, I clearly state, without equivocation, that these are our lands today — the lands of all the people. These are our lands — they belong to us lock, stock, and barrel. And they will be our lands and our children's and our children's children's lands far into the future unless we, as a people, through carelessness or apathy or conscious choice, allow that precious heritage to be sold or traded away for pottage.

Jack Ward Thomas, Chief of the Forest Service (1996)

Table of Contents

THE COMMITTEE	VI
PREFACE	IX
SYNOPSIS	XIII
CHAPTER ONE	
Introduction: The Context for Land Stewardship in the 21st Century	1
The First Round of Land and Resource Plans	2
Recent Trends and Developments	2
Developing New NFMA Regulations and a New Committee of Scientists	3
Dreams and Practicality	3
The NFMA Regulations as One Piece in the Planning and Management Puzzle	4
The Social and Organizational Context of Planning	4
Historical Uses and Current Conditions as a Context for Planning	6
Conclusion	10
CHAPTER TWO	
Sustaining the Land, Economies, and Human Communities	13
CHAPTER THREE	
Implementing Sustainability	19
3A. Ecological Sustainability	19
The Elements of Ecological Sustainability	19
Factors to Consider in Implementing Sustainability	21
How Ecological Concepts Affect Planning	27
3B. Economic and Social Sustainability	41
National Forests: Places Where People Work, Live, Worship, and Play	44
Variability and Uncertainty: The Realities of Economic and Social Sustainability in a Dynamic Landscape	45
Assessing the Contributions of National Forests and Grasslands to Society	45
Assessing the Social Consequences of Changes in Federal Land-Use Policy to Rural Economies and Communities	46
Considering the Economic and Social Impact of Land-Use Change in Setting Federal Policy	51
National Forest System Contributions to Social Sustainability: The Importance of Establishing Realistic Expectations	54
Contributions to Communities with Specific Protections Under the Law	56
Economic and Social Sustainability: When Are the National Forests and Grasslands Fulfilling Their Responsibilities?	61
Recommendations	62
3C. Building the Stewardship Capacity for Sustainability	63
The Eight Essential Building Blocks of Stewardship Capacity	64
Connecting the Building Blocks of Stewardship Capacity	76
Proposed Recommendations	76
Proposed Actions Regarding Formal Advisory Boards	77

CHAPTER FOUR

Collaborative Planning for Sustainability	83
4A. The Purpose of Planning	83
Fundamentals	83
Key Elements of the Planning Process	84
4B. The Structure of a Collaborative Planning Process	93
The Existing Approach to Forest Planning	93
The Assessment Process	95
Defining Desired Future Conditions	98
A Spatial Approach to Decision Making	101
Monitoring and Evaluation	108
Adaptive Management	110
The Integrated Land- and Resource-Management Plan	112
Adaptive Planning	114
4C. Other Considerations	114
The Role of the National Assessment, RPA Program, and Annual Report	114
Integrating Budgets into Planning	116
The Opportunity of NEPA	116
4D. Summary	118

CHAPTER FIVE

Challenges of Collaborative Planning	121
5A. Building Decisions on a Strong Foundation of Scientific Information	121
New Roles for Scientists in Land and Resource Planning	122
Integrating Scientific Information into Collaborative Planning	123
New Institutions Needed to Support Scientific Information and Review	125
5B. Integrating Scientific and Public Deliberation	130
A Participatory Approach Is at the Heart of Democracy	131
Contributing to Building Decisions and Evaluating Performance	133
5C. Protests and Appeals of Federal Decisions	136
Appeals Process	137
Predecisional Appeals	138
Postdecisional Appeals	141
5D. Global Commitments Regarding Sustainability	141
5E. Summary	144

CHAPTER SIX

Implementing the Laws and Policies Governing the National Forests and Grasslands in the Context of Sustainability	145
6A. Ecological Sustainability as the Foundation of National Forest Stewardship ..	145
6B. Water and Watersheds	152
The Legal Mandate to Conserve Watersheds	153
Watershed Integrity and Restoration	154
Key Elements in a Strategy for Conserving and Restoring Watersheds	156
6C. Identifying the Suitability of Lands for Different Types of Resource Management	159
6D. The Role of Timber Harvest in Achieving Sustainability	160
Silvicultural Aspects of the National Forest Management Act	160
Silviculture	160
Timber Removals, Sustained Yield, and the Desired Future Condition	165

CHAPTER SEVEN

External Influences on Forest Service Planning 169
 The Budget Process and Planning 169
 Improving the Relationship Between Land- and Resource-Management
 Planning and Budgets 170
 Requirements of Other Laws and Regulations 173

CHAPTER EIGHT

Proposed Purpose, Goals, and Principles for Inclusion in the Federal Regulations 175

APPENDIX A

Views of Committee Members 183

APPENDIX B

Date Sources 185

APPENDIX C

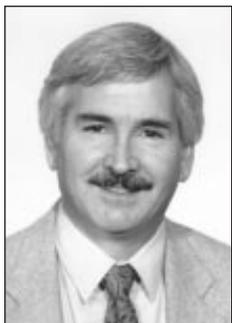
Visualizing Alternative Futures: One Cornerstone of Collaborative Planning 187

THE COMMITTEE OF SCIENTISTS



Dr. K. Norman Johnson
(Chair)

College of Forestry
Oregon State University
Corvallis, Oregon
Forest Management
and Policy



Dr. James Agee

College of Forest Resources
University of Washington
Seattle, Washington
Forest Ecology



Dr. Robert Beschta

College of Forestry
Oregon State University
Corvallis, Oregon
Forest Hydrology



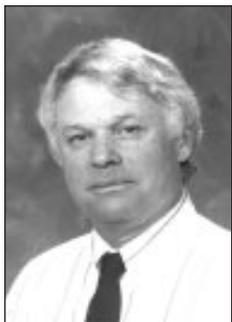
Dr. Virginia Dale

Environmental Sciences Division
Oak Ridge National Laboratory
Oak Ridge, Tennessee
Landscape Ecology



Dr. Linda Hardesty

Department of Natural
Resources Science
Washington State University
Pullman, Washington
Range Ecology
and Management



Dr. James Long

Department of Forest Resources
Utah State University
Logan, Utah
Silviculture



Dr. Larry Nielsen

School of Forest Resources
Pennsylvania State University
University Park, Pennsylvania
Fisheries and Public
Administration



Dr. Barry Noon
Department of Fishery
and Wildlife
Colorado State University
Ft. Collins, Colorado
Animal Ecology



Dr. Roger Sedjo
Forest Economic and Policy
Program
Resources for the Future
Washington, D.C.
Natural Resource Economics
and Policy



Dr. Margaret Shannon
Buffalo School of Law
Buffalo, New York
Sociology and
Organizational Theory



Dr. Ronald Trosper
College of Ecosystem Science
and Management
School of Forestry
Northern Arizona University
Flagstaff, Arizona
Forest Economics and
Native American Studies



Charles Wilkinson
School of Law
University of Colorado
Boulder, Colorado
Natural Resource Law



Dr. Julia Wondolleck
School of Natural Resources
and the Environment
University of Michigan
Ann Arbor, Michigan
Public Participation and
Dispute Resolution

STAFF TO THE COMMITTEE



Ann Carlson
Special Assistant to the
Committee
Suislaw National Forest
USDA Forest Service
Corvallis, Oregon



Robert Cunningham
Designated Federal Official
Special Assistant, Deputy Chief
National Forest Systems
USDA Forest Service
Washington, D.C.



Dr. Frederick M. O'Hara, Jr.
Consultant
in Technical Communication
Oak Ridge, Tennessee
Technical Publishing



Harriett Plumley
Forest Planner
Suislaw National Forest
USDA Forest Service
Corvallis, Oregon



Jonathan Stephens
Planning Specialist
Ecosystem Management
Coordination Staff
USDA Forest Service
Washington, D.C.