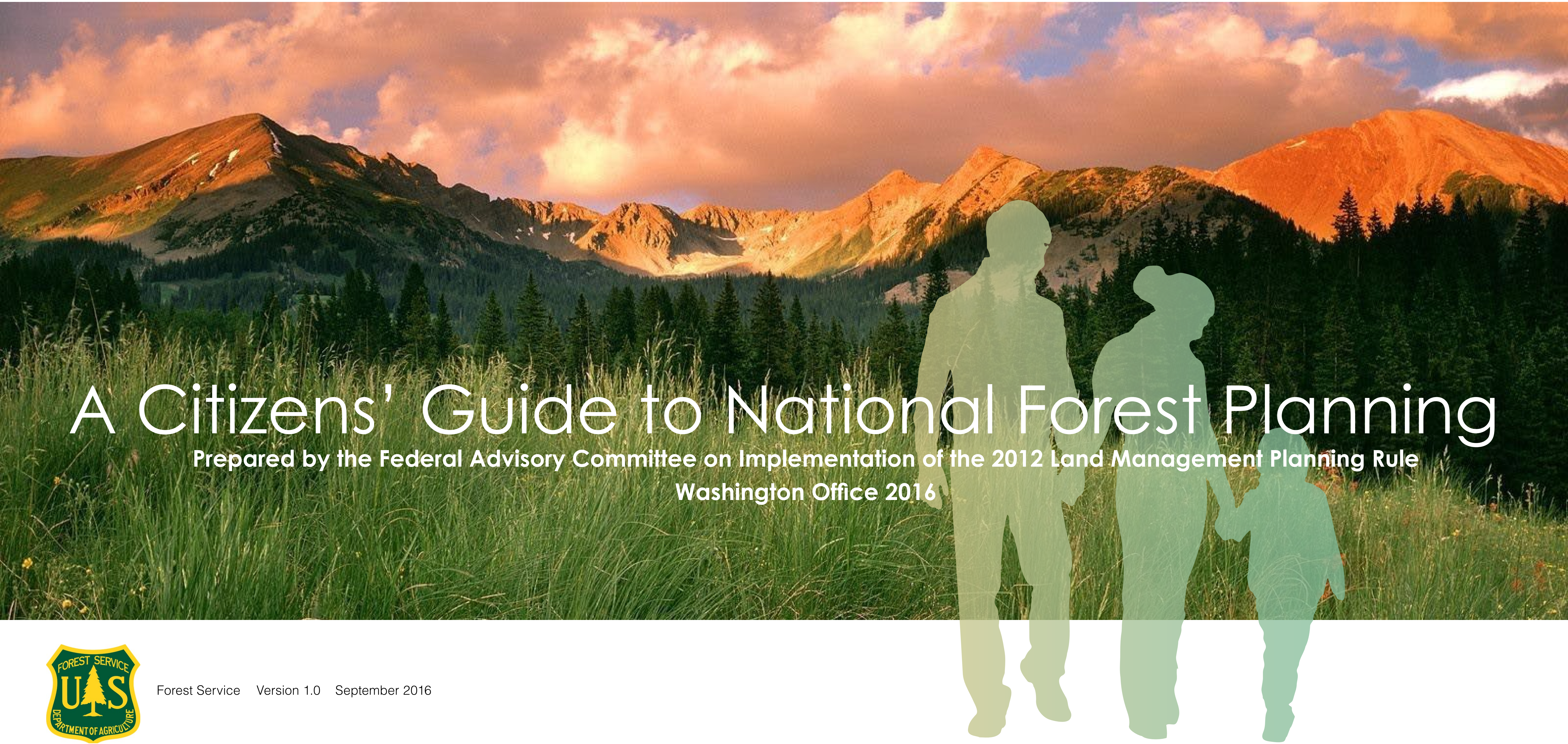
USDA United States Department of Agriculture



A Citizens' Guide to National Forest Planning

Prepared by the Federal Advisory Committee on Implementation of the 2012 Land Management Planning Rule

Washington Office 2016

Forest Service Version 1.0 September 2016

Foreword

In 2012, the Forest Service, an agency of the U.S. Department of Agriculture, adopted an innovative new rule to guide land management planning in the National Forest System. The 2012 Planning Rule is a significant advance in citizen-based land management planning intended to benefit communities, and to protect national important landscapes and resources. Because of the importance of sustainably managing the National Forest System with the help of the public and other stakeholders, the Chief of the Forest Service and the U.S. Secretary of Agriculture established a Federal advisory committee of citizens representing diverse interests to help the Forest Service achieve a more collaborative approach to land management planning. While working with the Forest Service, the committee recognized that the new rule represents a big change in how the Forest Service conducts land management planning and felt strongly that a citizens' guide was essential to help the public effectively navigate and get involved in the planning process. This is that guide. We hope you find it useful.

Susan Jane Brown and Rodney Stokes, Committee Co-Chairs

The following photos are used with permission of the photographer:

Pg 8 – Candice Price (man on horse)
Pg 11 – Petrus Barcus (public meeting)
Pg 16 – Joan May (wildflowers)
Pg 18 – Debra Whitall (USDA Forest Service staff)
Pg 19 – Petrus Barcus (public meeting)
Pg 23 – USDA Forest Service image (stream monitoring)
Pg 28 – USDA Forest Service image (tree monitoring)
Pg 28 – Pam Motley (Daubenmire plot and girl conducting tree monitoring)
Pg 28 – Dianne Robinson (loon)
Pg 29 – Dubi Shapiro (Red-cockaded-woodpecker)
Pg 35 – USDA Forest Service image (prescribed burn)
Pg 50 – Ken Conger, NPS Photo (grizzly bear)
https://www.flickr.com/photos/denalinps/6968121996/
https://creativecommons.org/licenses/by/2.0/
Pg 51 – Joe Schelling (Diana Fritillary butterfly)
Pg 62 – Lindsay Warness (lumber mill)
Pg 76 – Russ Ehnes (motorcyclist)
Pg 77 – Candice Price (youth on rafting trip)
All other images from istockphoto.com

The National Advisory Committee for Implementation of the National Forest System Land Management Planning Rule

This committee was established under the authority of the U.S. Secretary of Agriculture in accordance with the provisions of the Federal Advisory Committee Act (FACA) as amended.[1] The following members were appointed by the Secretary of Agriculture:

Mike Anderson	The Wilderness Society
William Barquin	Kootenai Tribe of Idaho
Susan Jane Brown	Blue Mountain Forest Partners
Robert Cope	Lemhi County Commissioner, ID - Retired
William Covington*	Northern Arizona University
Adam Cramer	Outdoor Alliance
Daniel Dessecker	Ruffed Grouse Society
Russ Ehnes	National Off-Highway Vehicle Conservation Council
Steve Kandell*	Trout Unlimited
James Magagna	Wyoming Stock Growers Association
Joan May	San Miguel County Commissioner, CO
Pamela Motley*	West Range Reclamation, LLC
Peter Nelson	Defenders of Wildlife
Martin Nie	University of Montana
Candice Price	Urban American Outdoors
Vickie Roberts	Shelton Roberts Properties
Greg Schaefer	Arch Coal Inc. - Retired
Angela Sondenaa	Nez Perce Tribe
Rodney Stokes	Michigan Governor's Office - Retired
Christopher Topik	The Nature Conservancy
Thomas Troxel	Intermountain Forest Association
Lorenzo Valdez**	Rio Arriba County, NM
Ray Vaughan	Noted Author and Raconteur
Lindsay Warness	Boise Cascade Company

[1]http://www.gpo.gov/fdsys/pkg/USCODE-2010-title5/html/USCODE-2010-title5/html/USCODE-2010-title5-app-federalad.html

*First term members (June 2012-2014)

** Lorenzo Valdez served on the Committee from its inception in June 2012 until his untimely death on May 3, 2015. He was a leader and bridge builder, a philosopher that understood the intersection between social, cultural, economic, and ecological values; and an advocate for traditional people. Throughout his time with the committee, Valdez became more than an esteemed colleague: he was a friend and mentor to many and is greatly missed.

Contents

Introduction

What Is the Purpose of This Guide?

The Forest Service, an agency of the U.S. Department of Agriculture (USDA), is currently revising many of its land management plans across the country. Often referred to as "forest plans," these documents guide the stewardship of an important part of our national heritage—the National Forest System—by creating a "big picture" view of how a national forest will be managed. The purpose of this Citizens' Guide is to help you understand the forest plan revision process and your opportunities for working with the Forest Service to help determine the future of this important national legacy.

In 2012, USDA issued a new planning rule. Because the forest planning process can be confusing and complex, we, as the forest planning advisory committee, developed this Citizens' Guide to provide information about planning under the new rule. This guide is intended to demystify the planning process and provide you with information on how to be involved, what to expect, and where you can go for more information. While we hope this guide will be useful to the public, it is not a substitute for the 2012 Planning Rule, Forest Service directives, or other guidance provided by the Forest Service.

As forest planning moves forward, we expect there will be many lessons learned, including development of best practices, things to avoid, and tips for success. This Citizens' Guide will be revised as appropriate to reflect this growing body of new information.

This guide is intended to **demystify the planning process** and provide you with information on how to be involved, what to expect, and where you can go for more information.

Home

This Citizens' Guide is organized in two parts:

Part 1—The Planning Process and Key Planning Principles

This part discusses how the forest planning process works, in a step-by-step fashion. Part 1 will introduce you to the "adaptive management framework" of the planning process and explain each phase of forest planning. This part also discusses key principles underlying the planning rule, which create the framework and overarching goals of land management planning.

Part 2—Major Planning Topics

This part provides additional information about specific planning topics that are likely to come up in the revision process. For example, if you are interested in timber harvest or wildlife habitat and how they might be addressed in planning, you will find information on those topics in part 2. The topics are organized alphabetically for ease of use, but it is important to remember that no resource or issue stands alone: they are interrelated, and the 2012 Planning Rule requires that they be addressed in an integrated way.

Why Our National Forests Are Important

Gifford Pinchot, the first Chief of the Forest Service, believed that our national forests should be managed “for the greatest good for the greatest number in the long run.” Today, the Forest Service manages 154 national forests, 20 national grasslands, and 1 national prairie across 193 million acres (throughout this document, the term “national forest” will be used as a reference to all these areas). These public lands provide a wide variety of natural resource goods and services for the American people that contribute to the economic and social diversity and sustainability of communities across the Nation.

Resources provided by national forests include timber used for wood products, forage for livestock and wildlife, mineral resources used in manufacturing and energy production, and many specialty products such as mushrooms, berries, and traditional medicines. Healthy forest ecosystems purify the air we breathe; provide clean water for our cities, homes, and irrigation; reduce the effects of drought and floods; store carbon; generate fertile soils; provide wildlife habitat; maintain biodiversity; and provide aesthetic, spiritual, and cultural values.

Our national forests also provide a wide variety of outdoor recreational experiences—from nonmotorized backcountry and wilderness experiences that provide incomparable solitude, to managed motorized experiences that provide challenge and excitement. Recreation contributes to our quality of life and well-being. The great diversity of recreation opportunities offered by our national forests not only benefits local economies, but also influences where people choose to live and where businesses choose to locate.

Weaving together the varied hopes and needs of diverse communities across the Nation will be a huge challenge. Working together, **we can preserve our national forest legacy for generations to come.**

Part 1

The Planning Process

What Is a Forest Plan and Why Is It Important?

Forest plans set the overall management direction and guidance for each of our national forests. Many of us are more familiar with site-specific Forest Service projects that occur in a single ranger district or in a particular watershed. In contrast, forest plans do not provide site-specific direction, such as where to put a recreation trail or what timber will be harvested, but instead guide management activities at a forestwide scale, providing direction of uses within each national forest.

Forest plans must meet the requirements of the National Forest Management Act, which requires the Forest Service to revise its forest plans at least every 15 years.

Each forest plan developed or revised under the 2012 Rule contains:

- Desired conditions, goals, objectives, standards, guidelines and identification of the suitability of lands in the plan area for multiple uses and resources (such as vegetation management, timber, wilderness, fish and wildlife habitat, grazing, recreation, mineral exploration and development, water and soils, cultural and historic resources, research natural areas, and diversity of plant and animal communities).
- Management areas and geographic areas designated as places where particular activities or goals can be considered (for example areas suitable for timber harvest, motorized recreation, grazing, and wilderness designation).

Forest plans set the **overall management direction** and guidance for each of our national forests.

A forest plan is similar to a city or county comprehensive plan that helps guide land use and development. In the same way that your town, county, or city is planned to designate where particular uses (such as industrial and residential uses) may occur, national forests plans identify areas intended for specific uses such as timber harvest, primitive recreation, or rare plant protection. Just as a county's comprehensive plan might prohibit the construction of a commercial facility in an area that has been identified for residential use, a forest plan could identify an area as not suitable for motorized recreation so that a motorized trail system could not be approved in that area.

Sometimes land use designations overlap each other, such as when streams with protected areas around them flow through lands suitable for timber production or grazing. Carefully balancing multiple uses is an important part of forest planning to protect resources, support sustainable uses, and maintain healthy ecosystems. Planning in our national forests and grasslands ensures balanced and thoughtful use and protection of the many resources on our public lands.

Overview of the 2012 Planning Rule and Public Involvement

What Is the 2012 Planning Rule?

The 2012 Planning Rule is the Federal regulation that sets out the procedures and required content for forest plans so that they support ecological, social, and economic sustainability. The 2012 Planning Rule is the first significant update to Forest Service planning procedures in 30 years (procedures were first established by the 1982 Planning Rule), reflecting decades of experience and lessons learned. There have been many advances in ecological science, social and economic science, and planning since 1982, including advances in adaptive management that will allow the Forest Service to track and respond to changing conditions, assumptions, and new information.

The 2012 Planning Rule was designed to incorporate the concepts of adaptive management, scientific basis, and public participation into forest planning, acknowledging the need for flexibility and agility during times of change, and providing a stronger commitment to involving the public throughout the planning process. It was also designed to require a holistic and integrated approach to management, recognizing that management needs for ecosystem resources are interrelated, and that management for ecological, social, and economic objectives are also interrelated.

The 2012 Planning Rule also recognized that land management planning for National Forest System lands cannot occur in isolation: the resources, species, and issues for which those lands are managed are often cross-boundary in nature.

The 2012 Planning Rule also requires that land managers think about opportunities to connect people with nature when developing plan components, supporting not just management of resources on the unit, but also fostering people's connection with those resources.

The 2012 Planning Rule is complemented by additional guidance in internal directives on how to develop, revise, and amend forest plans. This guidance was finalized in January 2015, and is found in the Forest Service Manual, chapter 1920, "Land Management Planning" and the Forest Service "Land Management Planning Handbook," (number 1909.12), also referred to as "Land Management Planning Directives" (hereinafter "directives"). Together the 2012 Planning Rule and directives provide a comprehensive set of requirements and guidelines the Forest Service must follow during the forest planning process.

Enhanced Public Involvement—The Key to Success

The national forests are owned by all Americans, and we all have a role to play in how they are managed. Under the 1982 Planning Rule, opportunities for public participation during the development of the plans were only required during portions of the planning process subject to the National Environmental Policy Act (NEPA). The 2012 Planning Rule requires decision makers, often referred to as "responsible officials," to emphasize and incorporate opportunities for public involvement through every step of the planning process. Although this approach creates a great responsibility for both the Forest Service and its public, it also presents the public with an important opportunity to help create forest plans that serve the public interest.

Prior to the 2012 Planning Rule, public involvement typically occurred after a draft plan was developed and during the environmental analysis process required by NEPA. The 2012 Planning Rule focuses on engaging with and listening to the public at all phases of the planning process. Ensuring that the public is involved in the development (and not just the review) of plans is one of the ways forest planning has changed.

The national forests are **owned by all Americans**, and we all have a role to play in how they are managed.

The 2012 Planning Rule also requires the Forest Service to reach out to diverse stakeholders and to include people who have not participated before in the planning process. Engaging youth and low-income or minority populations in the forest planning process is a very important part of public participation efforts. The Forest Service will be making special efforts to involve these diverse populations by working with schools and public service agencies, running radio and TV spots, attending a wide range of community meetings, and using online communication and social media. Forest Service officials will also be working to design more accessible and flexible opportunities for communities to participate. Outreach to members of underrepresented communities should emphasize the many benefits national forests provide to individuals and their families, such as clean air and water, job and career opportunities, and healthy recreation.

The 2012 Rule also emphasizes working with local, State, and tribal governments and partnerships to better serve all citizens. Thus, in addition to working directly with the Forest Service, citizens can also participate in the planning process through their tribal, State, and local governments.

If you have been involved in the development and implementation of Forest Service projects in the past, you should expect forest planning to provide more opportunities for robust public engagement, which will likely involve meetings, conference calls, and field trips. If this is your first time working with the Forest Service, you can expect to have your voice heard and respected. You can be involved as much or as little as you like, but we hope you will take this opportunity to engage early and often with the revision process.

Who Manages the Planning Process and How Long Will It Take?

Forest plans are developed and revised by an interdisciplinary team of professionals under the direction of a national forest supervisor. During the planning process, the forest supervisor is the “responsible official”—he or she manages the planning process and approves the final plan. In addition, the regional forester has some decision making responsibility at specific points in the planning process.

The Forest Service intends to complete forest plans within four years, although the schedule will conform to the needs of each particular national forest. Monitoring of the plan’s implementation is an ongoing activity and is key to successful adaptive management of our national forest resources.

Key Points of the 2012 Planning Rule

The final 2012 Planning Rule was developed after more than two and a half years of public input, including more than 300,000 public comments. The 2012 Planning Rule:

- Provides a **collaborative and science-based framework** for land management planning in order to sustain and restore ecosystems and watersheds, protect wildlife, respond to a changing climate, and connect people to National Forest System lands.
- Emphasizes **balancing economic and social values with ecological integrity** by supporting sustainable recreation and rural job opportunities.
- Recognizes the **importance of working with State, local, and tribal agencies** in creating plans that meet a wide range of community needs.
- Requires **reaching out to partners** to look for opportunities to meet joint objectives and build efficiencies in planning, implementation, and monitoring.
- **Strengthens the role of public involvement** in the planning process and provides numerous opportunities for public participation and dialogue.
- Includes a strong emphasis on **protecting and enhancing water resources**.
- Establishes a predecisional administrative review process to provide individuals and groups an opportunity to **resolve concerns before final approval** of a plan amendment or plan revision.

Permit Holders and the Planning Process

While the national forests are managed for the use and enjoyment of all Americans, some users have a special reason to engage with the Forest Service during the forest plan revision process. Permit holders—such as grazing permittees, recreational outfitters, or owners of ski areas—have special authorization to use national forests for particular purposes that may be affected by the revision process. If you are a National Forest System permit holder, you may want to be closely involved in plan revision, as you have a unique interest in the management of the national forests.

Forest Service Regional Foresters and Forest Supervisors

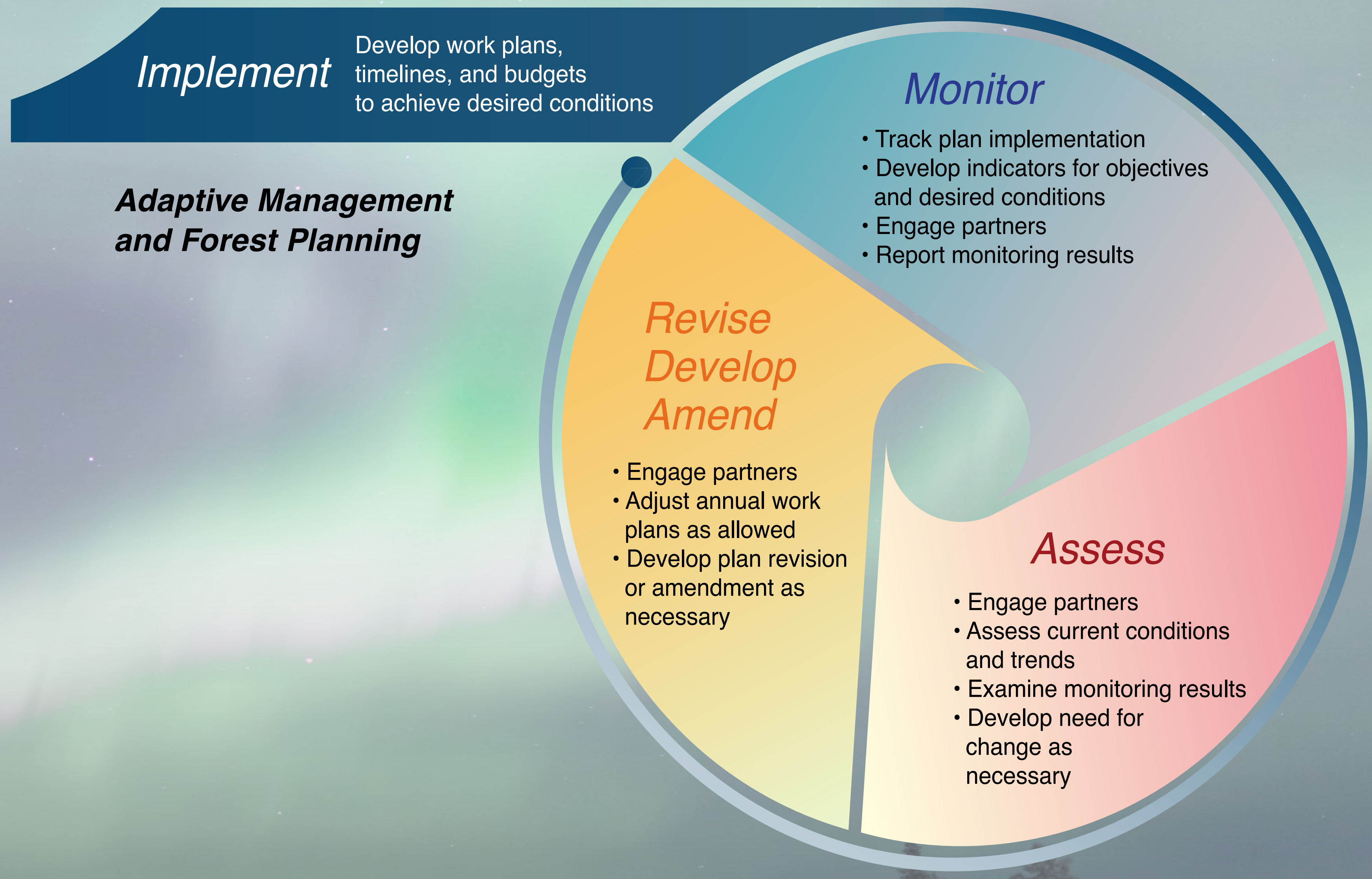
National forests and other areas within the National Forest System are grouped into geographic regions. The official with authority over each region is called a "regional forester." The official with authority over each national forest is called a forest supervisor. The 2012 Planning Rule refers to these individuals as "responsible officials," assigning different decision making responsibilities to each during plan revision.

The Three Phases of Planning and Adaptive Management

The forest plan revision and planning process is a cycle that includes three primary phases: bold assessment, plan development and monitoring. The core concept behind this cyclical process is known as adaptive management.

During the assessment, the Forest Service will identify and evaluate existing economic, social, and ecological conditions of the national forest undergoing plan revision. Plan development uses the information from the assessment together with input from the public and other entities gathered through comments, collaboration, tribal consultation, and other opportunities for engagement to revise a forest plan. Once the plan is approved, it will guide project-level decisions, like how and where to harvest timber. During implementation of the plan, monitoring of conditions on the ground helps determine whether the plan is actually achieving its intended desired conditions and objectives. Monitoring information helps managers determine whether they need to propose amending or revising the plan.

The notion that plans should be changed, through amendment or revision, to reflect changing conditions or incorrect assumptions is the heart of the adaptive management approach. The ability of the Forest Service to work with the public to adapt the plan as new information becomes available is critical to the ability of managers to be responsive.



The Role of Science

The 2012 Planning Rule requires the use of the best available scientific information to inform planning and plan decisions. There is a lot to consider when thinking about how science and scientific information are used in forest planning.

Science is a dynamic process that builds knowledge and reduces uncertainty by testing predictions; scientific information can be considered the expanding body of knowledge developed through the scientific process. Scientific information comes in many forms, including social, economic, and ecological information. Scientific information comes from many sources—for example, from peer-reviewed articles, scientific assessments, expert opinion, and data in the form of monitoring results. It also comes from information gathered during public involvement efforts and traditional ecological knowledge.

What is the **"best available scientific information"** (BASI)? Generally, it is high-quality information that results from well-developed and appropriate methods, draws logical conclusions based on reasonable assumptions, explains information gaps and inconsistencies, has been appropriately peer-reviewed, is placed in the proper context within the body of knowledge, and cites references. However, not all information needs to meet all of these characteristics to be considered best available scientific information. At a minimum, scientific information needs to be available, accurate, reliable, and relevant. "Available" means that the Forest Service does not need to create new scientific information and conduct new research, but simply should use information that currently exists.

Finally, one of the fundamentals to effective use of scientific information is transparency in how it is used. The 2012 Planning Rule requires the Forest Service to document and summarize how the universe of best available scientific information was identified and how it informed the planning process.

Phase 1: The Assessment Phase

Before revising a forest plan, the Forest Service will conduct an assessment of the existing economic, social, and ecological conditions and trends in and around the national forest. The type of information the Forest Service gathers at this stage of the process includes existing information on:

- Air, soil, and water resources and quality
- Fish, wildlife, and native plant presence and abundance
- Social, cultural, and economic conditions
- Benefits and outputs people obtain from the national forest
- Wilderness, wild and scenic rivers, and other specially designated areas
- The types of events or processes that change the ecological condition of the forest (such as wildfire and climate change)
- A baseline assessment of carbon stocks
- Renewable and nonrenewable energy and mineral resources
- Roads and other facilities
- How people use the national forest for recreation
- Areas of tribal importance
- Cultural and historic resources and uses

During the assessment process, the Forest Service will seek out relevant existing information from a variety of sources, which may include Federal and State agencies, tribes, research entities, and the public. Information may consist of State forest assessments and strategies, comprehensive outdoor recreation plans, community wildfire protection plans, public transportation plans, and State and tribal wildlife data and action plans.

The Forest Service will notify the public when it starts the assessment process. The responsible official will determine how best to invite and incorporate public input into the development of the assessment, but if you have information you believe is relevant to an understanding of existing conditions on your national forest, you should provide that information to the Forest Service. Other opportunities for participation may be through public meetings, field trips, science forums, or other approaches.

The assessment process should be rapid and focused. Keep in mind that the assessment does not include decisions about how your national forest will be managed; it is simply an opportunity for the Forest Service to gather information about the types of things that will be considered and addressed during the next step of the planning process—development of the plan.

How Will the Forest Service Communicate With You?

The 2012 Planning Rule requires the Forest Service to publish notices regarding the planning process in the primary local newspapers, online, and sometimes in the Federal Register. Every national forest will have a Web page dedicated to forest planning so people can easily find out the status of the planning process and details related to times, dates, and locations of public meetings. The Forest Service will also maintain an email list to provide information to anyone who would like to be kept informed that way. For those who prefer to review paper copies of reports, maps, or draft materials, the Forest Service will provide materials by regular mail, in various offices, or at local libraries.

Phase 2: The Development Phase

Once the Forest Service has completed the assessment, it will begin the plan development phase. This is where the Forest Service, its government partners, and the public will spend the bulk of their time during the revision process. The Forest Service will notify the public when it is ready to begin the planning phase, and will seek your involvement and input around building a new, revised forest plan.

Determining the Need for Change

Having considered the information gathered through the assessment process, as well as through monitoring of the existing forest plan, the Forest Service will identify a "need for change," which explains why and what parts of the existing forest plan should be revised. The need for change is a tool for focusing the planning phase on issues and resources that may need different direction than what is in the current plan.

When the Forest Service notifies the public that it is prepared to begin the plan development phase, it will also share a preliminary need for change and ask the public for comments and opinions about what a revised forest plan may need to address. The planning team will consider the public's input and use the final need for change to help organize the planning phase.

Coordinating With Other Forest Service Planning Initiatives

Although this guide is focused on the forest planning process, this is not the only planning effort the Forest Services undertakes. For example, the Forest Service is currently in travel management planning across the country, which will determine which roads and over-the-snow routes are open to motorized travel. Similarly, the Forest Service is required by the Wild and Scenic Rivers Act (P.L. 90-542) to prepare river management plans for eligible wild, scenic, and recreational rivers.

The 2012 Planning Rule does not require the Forest Service to undertake all of its planning at once, which means that your national forest may only be revising its forest plan and not other types of plans. However, by identifying unique resources and needs, the forest plan can initiate a variety of focused planning efforts that support decision making at a more detailed scale. All plans must ultimately be harmonized so that there are no conflicting goals, standards, and guidelines.

Building a Forest Plan

The Forest Service and public will begin to build a revised forest plan based on the assessment and the need for change. While there are a variety of ways that the planning information can be organized, planners generally describe and evaluate the following:

- Conditions, trends, and factors that may impair proper ecosystem function (such as invasive species, climate change, or the lack of wildland fire).
- Lands that may be suitable for designation as wilderness.
- Rivers eligible for inclusion in the National Wild and Scenic Rivers System.
- Existing designated areas (such as botanical areas or research natural areas), and other areas with the potential for special designation.
- Suitability of areas for certain multiple uses such as timber and forage production.
- The maximum quantity of timber that may be harvested on a sustainable basis in perpetuity.
- Monitoring questions that will test the effectiveness of the forest plan, test key assumptions, and track changing conditions.
- Species of conservation concern for the national forest.
- Management or geographic areas (such as riparian management zones or timber emphasis areas), each with a different focus and different mix of multiple uses. Management areas need not be contiguous but should share similar attributes and capabilities.

Home

Plan Components

Part of revising a plan includes developing plan components. Plan components guide what future site-specific projects and activities may take place, where they can occur, and under what conditions. They are intended to be interdependent, with suites of plan components designed to meet specific needs. The final plan components taken together must achieve all the requirements in the 2012 Planning Rule.

Revised forest plans must contain the following plan components:

Desired Conditions

These are descriptions of specific social, economic, or ecological characteristics of the plan area, or a portion of the plan area, toward which management of the land and resources should be directed. Desired conditions are the vision of what you want your forest to look like, and other plan components (objectives, standards and guidelines, and suitability), would be designed to get you there.

Example Desired Condition:

Open longleaf pine ecosystems that support a fully recovered red-cockaded woodpecker population of 350 potential breeding groups and 450 active clusters.

Objectives

These are concise, measurable, and time-specific statements of a desired rate of progress toward a desired condition or conditions based on reasonably foreseeable budgets. Objectives should be designed so that monitoring can gauge progress, as well as the effectiveness of activities, in moving towards the desired condition.

Example Objective:

Improve 50,000 acres in a priority watershed to a properly functioning condition within 10 years of plan approval.

Standards

These are mandatory constraints on project and activity decision-making, established to help achieve or maintain the desired condition or conditions to avoid or mitigate undesirable effects, or to meet applicable legal requirements. Standards must be complied with as written. Adaptive management direction may support the use of situation-dependent (if-then) or qualified (unless) standards.

Example Standard 1:

All seed purchased, or otherwise designated or accepted for use on National Forest System lands, must be weed-free.

Example Standard 2:

In priority and important habitat management areas and sagebrush focal areas, do not approve construction of water developments unless beneficial to greater sage grouse habitat.

Guidelines

These are mandatory constraints on project and activity decision making that provide flexibility for different situations, so long as the purpose of the guideline is met. Guidelines should be written so that their intent is clear. If there is evidence that a different approach would be more or equally effective in meeting the intent, divergence can be justified. In the example below, the intent of the guideline is to protect active nesting habitat. If there is a scientific basis for an activity to take place within 20 feet that contributes to or is consistent with the intent of protecting nesting habitat, divergence from the guideline can be justified. Otherwise, the mandatory constraint applies as written.

Example Guideline:

Management activities should take place no closer than 20 feet to active nesting habitat.

Goals

These are broad statements of intent, other than desired conditions, that are usually related to process or interaction with the public. Goals are an optional plan component.

Example Goal:

Create new partnerships to support forest restoration that increases forest and community resilience.

Suitability of Lands

These plan components identify areas of land as suitable or not suitable for specific uses (such as timber or range production), based on the applicable desired conditions. The identification of suitability of lands is not required for every resource or activity and does not need to be made for every acre of the plan area.

Example of Suitability:

Management areas A, B, and C are suitable for forage production to support livestock grazing.

This graphic shows **how forest plan components relate to each other.** Standards set firm management parameters, while objectives provide more flexible guidance. Both help to achieve goals, and ultimately desired future conditions.

Home

In addition, forest plans must:

- Identify watersheds that are a priority for maintenance or restoration.
- Describe the national forest's distinctive roles and contributions within the broader landscape; for example, "A year-round opportunity for wildlife watching is one of the reasons that more than half a million people visit the national forest every year."
- Include a plan monitoring program and reference to broader scale monitoring strategies.
- Contain information reflecting proposed and possible actions that may occur on the national forest during the life of the plan, such as a planned timber sale program, timber harvesting levels, and the types of timber harvest practices expected to be used.

The overarching purpose of the plan revision process is to ensure that national forests are sustainably managed for generations to come. To accomplish that purpose, plan components must address several ecological and socioeconomic topics, including:

- Air quality
- Best management practices for maintaining water quality

- Cultural and historic resources and uses
- Diversity of plant and animal communities
- Ecosystem services (see next page)
- Multiple uses that contribute to local, regional, and national economies in a sustainable manner
- Opportunities for timber and forage production
- Opportunities to connect people with nature
- Opportunities for maintaining, restoring, and protecting riparian areas (areas situated on the banks of a stream or other body of water)
- Social, cultural, and economic conditions relevant to the area influenced by the forest plan
- Soils and soil productivity, including guidance to reduce soil erosion and sedimentation
- Sustainable recreation, including recreational opportunities, access, and scenic character
- Water quality
- Water resources in the plan area, including lakes, streams, and wetlands; ground water; public water supplies; sole-source aquifers; source water protection areas; and other sources of drinking water, including guidance to prevent or mitigate detrimental changes in quantity, quality, and availability

What Are Ecosystem Services?

The 2012 Planning Rule emphasizes the role of ecosystem services in forest planning. Ecosystem services can be thought of as current and future benefits people and communities obtain from the national forests. Our growing U.S. population benefits from, and increasingly demands, services such as: fresh water, protector from drought and floods, carbon storage, and recreation. Also other social, economic, ecological and culture benefits are generated by national forests.

Ecosystem services are incredibly diverse. Healthy and resilient watersheds provide a sustained flow of ecosystem services over the long-term in the form of abundant clean water, aquatic habitat, productive soils, and other services. Forests provide a range of goods and services important to society, including raw material for wood and paper products, in addition to many nonconsumptive values and uses.

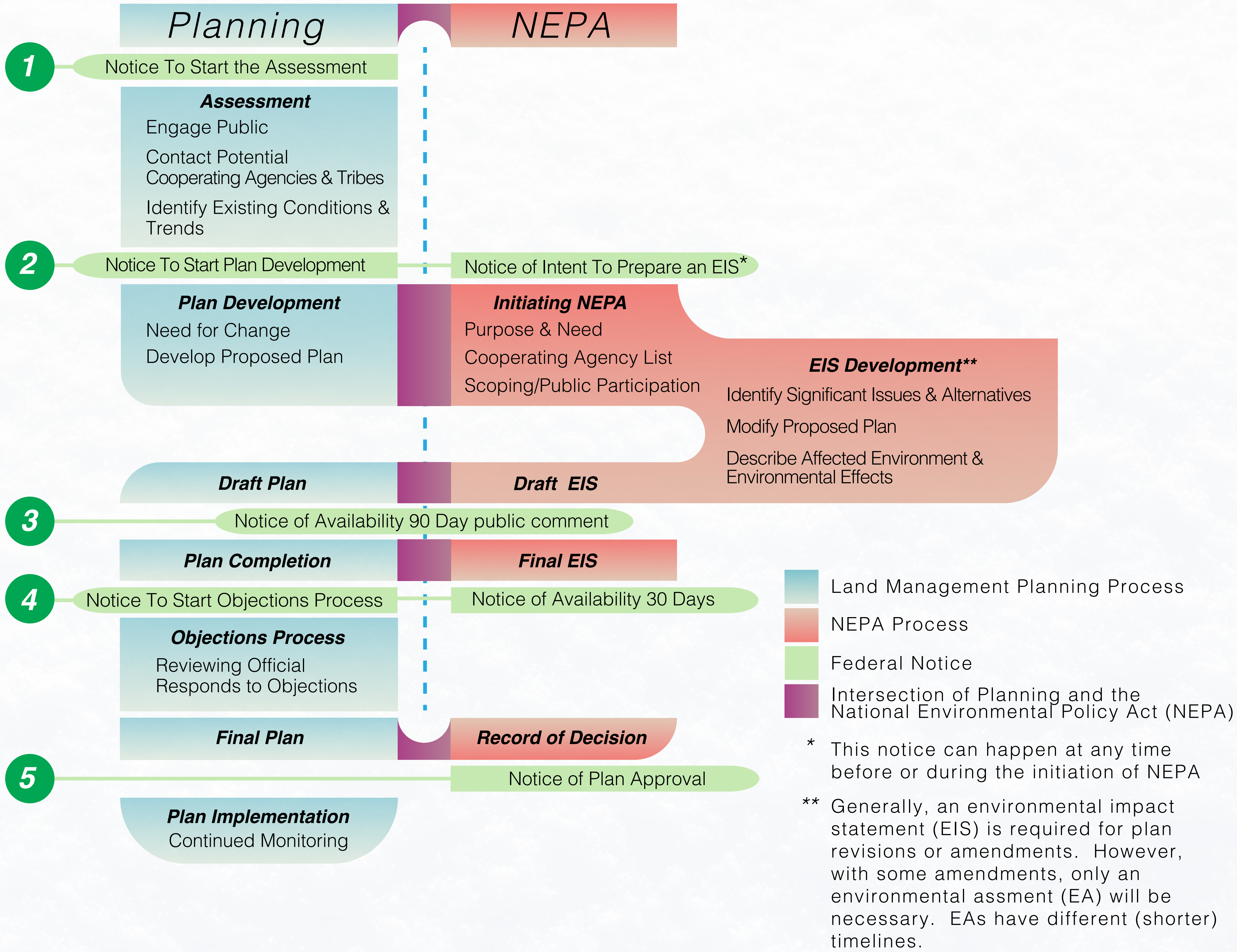
Ecosystem services generated from national forests can be affected by the forest plan and by other factors. In the planning process, assessments should identify and evaluate key ecosystem services within the planning area that may be influenced by the plan, and the plan must ensure the provision of ecosystem services. Highlighting and monitoring ecosystem services in forest plans allows the public to understand and value unique benefits provided by individual national forests. For example, a plan in the Pacific Northwest or southeast Alaska may describe desired ecosystem services associated with sustaining healthy salmon habitat and fisheries. Or, a plan in the Southwest may choose to highlight and provide ecosystem service benefits in the form of sustaining cultural heritage and spiritual values associated with a specific national forest.

Home

The Environmental Analysis and Review Process

As the Forest Service engages with the public, stakeholders, and government partners to develop plan components, it will begin the environmental analysis and review process required by NEPA, its implementing regulations, and Forest Service NEPA procedures. This is commonly referred to as "the NEPA process." The Forest Service will alert the public when it is about to begin the NEPA process and will seek comments and input at regular intervals during the process. You will be able to participate in collaborative or other engagement opportunities with the Forest Service and others during the planning process, and you will have an opportunity to provide formal comments to the Forest Service during the NEPA process.

The first step in the NEPA process, known as the "scoping" period, is when you can comment on the Forest Service's preliminary proposal and say what you think are important issues for the agency to consider. After that, the Forest Service will develop a proposed plan, analyze the environmental effects of the proposed plan, as well as alternatives, in a detailed document called an environmental impact statement (EIS). The Forest Service will make the proposed plan and the draft EIS available for public review and comment. You will have at least 90 days to comment on the proposed plan and draft EIS for a plan revision.



About Plan Amendments

This Citizens' Guide was primarily designed to help you understand the plan revision process under the 2012 Planning Rule. Compared to the 1982 planning rule, the 2012 rule is expected to result in forest plans that are updated or amended regularly to reflect new information, changed circumstances, and information gathered during monitoring and the adaptive management process. Therefore, if you want to be involved, you should become familiar with the plan amendment process, which may vary from the revision process depending on the scope and scale of the amendment.

An amendment is a change to one or more plan components. An amendment may be narrow or broad in scope, based on a finding that there is a need for change (just like the need for change that leads to a forest plan revision). An amendment may apply to the entire national forest or grassland covered by the plan or just a portion of it. An amendment can apply to a specific project and be limited to the time the project is carried out. The Forest Service will involve the public throughout the plan amendment process, including examining the environmental effects of the proposed amendment through the NEPA process, and will give the public the opportunity to object to a plan amendment before it is approved.

The public should view the plan amendment process as a critical part of the adaptive management process: If the Forest Service and the public are regularly monitoring and learning from activities on the national forests, then forest plans should also be regularly updated to reflect that knowledge.

Home

Opportunity To Object to a Forest Plan

After the Forest Service has developed a proposed revised plan and completed a draft EIS, and the public has had an opportunity to comment on them, the Forest Service will issue the revised plan, a final EIS, and a draft record of decision. People who are dissatisfied with the revised plan and who have been involved in the revision process will have 60 days to object to the Forest Service's proposed decision. Known as a "predecisional objection," this administrative challenge to the draft decision provides one more opportunity for you to work with the Forest Service to resolve any outstanding issues with the plan prior to a final decision. The objection must identify specific concerns with the plan, how the proposed decision could be improved, and your previous formal comments on the draft plan.

If you choose to file an objection, you may meet with the Forest Service to attempt to resolve your concerns. Other people who have been active in the planning process and are interested in the revised forest plan, as well as the general public, may participate in the resolution meeting. If you and the Forest Service successfully resolve your concerns, you can withdraw your objection. If you and the Forest Service cannot resolve your concerns or only resolve a portion of the objection, the Forest Service will generally issue a formal written response, which can identify changes to the plan reflecting any resolutions, within 90 days of the close of the administrative review period. This period may be extended. The Forest Service will then publish the final plan and a record of decision that documents the final decision and the responsible official's rationale for it.

This signals the close of the Forest Service's environmental analysis and administrative process for the forest plan revision. If you are still dissatisfied with the Forest Service's decision, you may seek judicial review to challenge that decision.

Objections Process

Implementation of the Plan

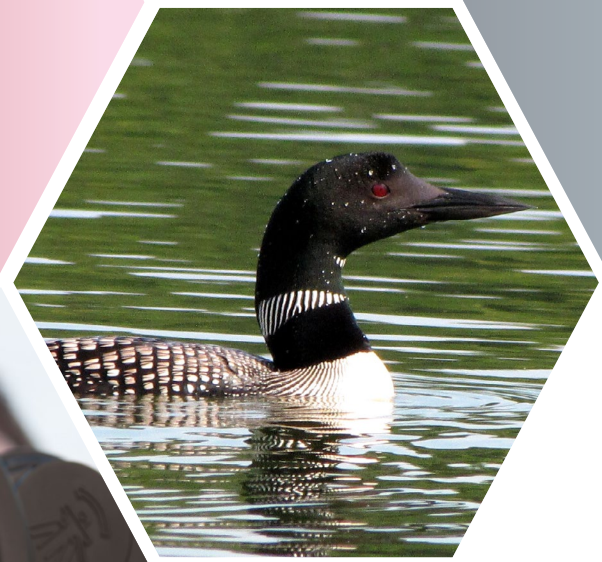
Once the forest plan has been revised and a final decision issued, the Forest Service will begin managing the national forest based on the direction contained in the new plan. New projects, such as timber sales or motorized trail development, must be consistent with plan components in the new plan. The Forest Service will continue to work with the public, other stakeholders, and government partners to review and develop these projects, which will be shaped through collaboration and public involvement and will be subject to an environmental analysis and the public review process.

Phase 3: The Monitoring Phase

During the life of the plan, the Forest Service must monitor the effectiveness of the plan. Monitoring provides feedback by testing assumptions, tracking relevant conditions over time, and measuring the effectiveness of the forest plan and plan components.

During the planning process, the Forest Service is required to develop two types of monitoring programs to be included in the revised plan: *a plan monitoring program and a broader scale monitoring strategy.*

These monitoring programs, to be carried out after a revised plan is approved, inform the Forest Service and the public about the effectiveness of the revised plan. Every two years, the Forest Service must use new monitoring data to compile a monitoring evaluation report. If monitoring results indicate that a change to the forest plan may be appropriate, the Forest Service may begin the process of amending the plan and will provide the public with opportunities to be involved.



During the life of the plan, the Forest Service must **monitor the effectiveness of the revised plan.**

The Plan Monitoring Program

The plan monitoring program is a required element of the plan. It is designed to test whether assumptions made during planning were accurate and to track progress towards meeting the desired conditions set out in the plan. Information from monitoring efforts informs the Forest Service and the public as to whether a change to the plan is necessary.

The plan monitoring program must contain one or more monitoring questions that address the following items:

- The status of watershed conditions
- The status of ecological conditions, including key characteristics of terrestrial and aquatic ecosystems
- The status of focal species
- The status of the ecological conditions necessary to contribute to the recovery of federally listed threatened and endangered species, conserve proposed and candidate species, and maintain a viable population of each species of conservation concern
- The status of visitor use, visitor satisfaction, and progress toward meeting recreation objectives
- Measurable changes on the plan area related to climate change and other stressors that may be affecting the plan area
- Progress toward meeting the desired conditions and objectives in the plan, including for providing multiple use opportunities and social, economic, and cultural conditions
- The effects of management activities to determine that they do not substantially and permanently impair the productivity of the land

Importantly, monitoring questions developed for the plan monitoring program must be "within the financial and technical capability" of the Forest Service, meaning that the Forest Service must have the money and ability to actually carry out the strategic monitoring outlined in the plan monitoring program. The Forest Service will be monitoring the effectiveness of the forest plan as a whole, which is a separate process from the monitoring of site-specific projects like timber sales or road construction. The plan monitoring program should be designed so that monitoring is efficient, complementary, and occurring at the appropriate scale.

Home

The Broader Scale Monitoring Strategy

In addition to the plan monitoring program, the Forest Service is required to design and implement a broad-scale monitoring strategy to support plan monitoring. This monitoring program will be developed by the regional forester with input from the forest supervisors. It is designed to ask and answer socioeconomic and ecological questions in the plan monitoring programs that are best answered at a larger geographic scale (for example, whether and how climate change is affecting water availability across an ecosystem such as the Great Basin). Here, too, broad-scale monitoring questions must be within the Forest Service's technical and fiscal ability to carry out, taking into account multi-party monitoring and partner capacity.

Biennial Monitoring Report

The biennial monitoring report is a critical element in the adaptive-management cycle because it tells the Forest Service and the public whether the plan is working. Beginning two years after the revised forest plan's effective date and for every two years afterwards, the Forest Service will evaluate the new monitoring information gathered to determine how well the plan is achieving desired conditions (note: some monitoring may occur on a timeline that takes longer than two years, for example, when a plant species blooms only every three years). The Forest Service will release a monitoring report to the public outlining the monitoring results. The report will indicate whether a change to the plan, management actions, or the monitoring program may be warranted.

Monitoring and Data Collection— the Importance of Partners

The Forest Service is required to do quite a bit of monitoring to determine whether the revised forest plan is meeting expectations, and monitoring can be expensive, time-consuming, and labor-intensive. Therefore, the Forest Service will need to rely on the help of its partners and work collaboratively with them to accomplish monitoring objectives. The 2012 Rule requires that during the development of the monitoring program, the Forest Service consider opportunities for multi-party monitoring and that it takes into account other existing relevant monitoring and data sources. The Forest Service may rely on existing data sources such as national and regional inventory, monitoring, and research programs of the Forest Service and other governmental and nongovernmental entities (Federal, State, or local government agencies; scientists, partners, and members of the public; information developed by federally recognized Indian tribes and Alaska Native Corporations).

If you are involved in monitoring or data collection for your national forest, the Forest Service invites you to share your information to help improve future management.

Part 2

Major Planning Topics

If your national forest or grassland is undergoing forest plan revision, and you want to **learn more about particular subjects** of interest to you...

This section provides information on various topics and how they will be considered during the revision process. The topics are organized alphabetically for ease of use, but it is important to remember that no resource or issue stands alone: they are interrelated and must be addressed in an integrated way. They cannot be considered in isolation of one another or the broader requirements for the final plan.

While this part is intended to help you begin to engage with the planning process on issues of interest to you, the information below is not a substitute for the 2012 Planning Rule or directives. For more information on these and other topics, please refer to those documents.

Specific topics in this section include:

Adjacent Lands and Inholdings

Air Quality

Climate Change

Cultural Resources

Ecological Sustainability

Fire and Fuels Management

Fish, Wildlife, and Plants

- ***Threatened, endangered, proposed, and candidate species***
- ***Species of conservation concern***
- ***Species used and enjoyed by the public, including for fishing, hunting, trapping, gathering, observing, and subsistence***

Fishing, Hunting, Trapping and Gathering

Forests and Timber Management

Grazing and Rangelands

Renewable and Nonrenewable Energy and Mineral Resources

Social and Economic Sustainability

Soil

Sustainable Recreation

Water and Watersheds

Wild and Scenic Rivers

Wilderness

1 Adjacent Lands and Inholdings

Overview

Nearly 40 million acres of private, State, and other lands are within the boundaries of the national forests. Millions of additional acres of these lands lie next to the national forests, and land owned by others will affect and be affected by forest planning decisions.

Why It Matters

The Forest Service has no authority to make decisions for lands of other ownership, nor can it delegate decision making for lands under agency authority. The 2012 Planning Rule, however, requires the responsible official to consider the broader landscape when revising forest plans. That is, the Forest Service must consider current and desired conditions across all ownerships, putting National Forest System lands in the broader ecological, economic, and social context of the entire landscape. Such a broad consideration is sometimes called taking an "all-lands approach."

Forest Service decisions for the national forests may directly affect owners and management of adjacent and intermingled lands. Similarly, decisions about management of adjacent and intermingled lands may directly affect management of the national forests. For that reason, the Planning Rule requires responsible officials to encourage participation by other landowners.[2]

Both the Forest Service and adjacent landowners will benefit from cooperation on overall management strategies and issues in common, such as invasive plants, access, priorities for land adjustments, habitat connectivity, and threats of forest fires and insect epidemics. Managers should also understand the unique roles and contributions of the unit within that broader landscape. For example, an ecosystem type or specific kind of recreation access may be prevalent within the unit but rare within the broader landscape.

As of 2010, the wildland-urban interface of the lower 48 States included about 44 million houses. Strategies to reduce the potential for catastrophic fires in the wildland-urban interface are crucial for homeowners, the Forest Service, and other agencies with fire suppression responsibilities.

[2] See also "Understanding Your Opportunities for Participating in Forest Service Planning Process: A Guide for State, Local, and Tribal Governments," for more detail on engaging with other governments, including State, local and tribal governments. Tribal consultation is also required.
http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd518206.pdf

Nearly 40 million acres of private, State, and other lands are within the boundaries of the national forests. Millions of additional acres of these lands lie next to the national forests. These lands of other ownership will be affected by forest planning decisions.

Communities, groups, or individuals interested in these important issues can influence the development of plan components and plan monitoring programs by becoming involved in the forest planning and monitoring process, as well as the development, implementation, and monitoring of site-specific projects and activities.

Process

The assessment should identify and evaluate information on land status and ownership, use, and access patterns, trends in adjacent land ownership and use (acquisition, exchange, or disposal); and a description of landscape-scale stressors and threats, including fire, insects, diseases, invasive species, and climate change.

During plan development, the Forest Service will consider management and resources across the landscape, as well as opportunities for the plan to address identified impacts or to contribute to shared objectives across jurisdictions.

Monitoring strategies may be developed to address fires, insects, diseases, and invasive species, as well as progress and trends in land adjustments, rights-of-ways, and boundary management.

Possible Key Topics

- Coordination with State, private, and other landowners on landscape-scale issues such as forest health, catastrophic and other types of fire, insects and diseases, invasive species, and wildlife habitat
- Opportunities for landscape-scale restoration
- Connectivity and species management across different ownerships
- Priorities for land adjustments, rights-of-ways, access, and boundary management
- Tribal Forest Protection Act and tribal engagement
- Alaska-specific laws (such as Alaska National Interest Lands Conservation Act)

For More Information

Forest Service Lands and Realty Management Web site: http://www.fs.fed.us/land/staff/

Tribal Forest Protection Act: http://www.fs.fed.us/restoration/documents/stewardship/tfpa/TribalForestProtectionAct2004.pdf

2 Air Quality

Overview

Changes in air quality from activities on National Forest System lands are significant for the communities and residents in nearby and downwind areas. This is especially true for particulate matter that is released from National Forest System lands in the form of dust, pollen, or smoke.

Why It Matters

From both a regulatory and public health standpoint, air quality is a vital consideration in forest planning. Smoke is easily the largest and most potentially significant source of "particle pollution," but other air pollutants (such as dust caused by land management actions) can also affect users of national forests. The thoughtful use of prescribed and managed fire is an important restoration management tool to help restore degraded forest conditions, and to avoid or reduce the risk of uncharacteristic wildfires, which can result in high levels of smoke. The health effects of smoke, especially from wildfires, can be significant. Planning can help balance appropriate fire use and management with smoke management to achieve restoration objectives and reduce the risk of uncharacteristic fire.

Other air quality concerns are also important for land management. Examples include managing scenic viewsheds, determining availability for oil and gas leasing, and managing for species habitat.

Process

The assessment should examine air quality conditions and trends in the planning area and vicinity. It should identify the main types of air pollution (such as particulates and sulfur dioxide) and their sources (such as forest fires, dust from unpaved roads, nearby power plants, or factories). It should also present existing information about trends in air pollution and whether U.S. Environmental Protection Agency air quality standards have been exceeded.

Since both wildfires and prescribed fires produce smoke that can affect communities and their residents, forest plans should seek to find a balance among the various management techniques that result in smoke emissions. Plans should consider management of prescribed burning and wildfire in order to reduce the air quality and public health impacts that result from fires on National Forest System lands. Prescribed fire is often an appropriate tool to accomplish this objective.

Changes in air quality from activities on National Forest System lands are significant for the communities and residents in nearby and downwind areas.

Possible Key Topics

- Use of prescribed or managed fire as a way to reduce the future risk of wildland fire and accomplish important ecologic, social, and economic objectives
- Interagency air quality management and air quality standards
- Sources of air pollution
- Scenic quality of viewsheds
- Management of smoke, particulate matter, dust, and smog

For More Information

Clean Air Act: https://www.epa.gov/clean-air-act-overview

Forest Service Air Resource Management Home: http://www.fs.fed.us/air/

3 Climate Change

Overview

The changing climate in North America is widely seen as a major challenge for the continued management of national forests for long-term use and enjoyment by the American people. The 2012 Planning Rule requires plans to consider climate change as a stressor that must be addressed and monitored and to plan for a future where forests are resilient to future changes. For example, many Forest Service managers will need to address changing timing and amounts of precipitation, shifting habitat zones, and larger and more intense wildfires that are a product of past management practices and a changing climate.

Why It Matters

The previous decade has seen many of the hottest years on record. Extensive droughts, fires, floods, insect infestations, and other events have impacted the health of America's forests, including those within the National Forest System. Scientific forecasts suggest that the coming decades are likely to be more severe: warmer, drier, and with greater fluctuations in extreme weather patterns being "the new normal." In particular, changing weather and climate patterns are likely responsible for extending the fire season, which may put extensive reaches of the National Forest System and the benefits it provides—like water source protection, wood production, wildlife, and scenic values—at risk.

Forest protection and management represent an important opportunity to reduce the impacts of future climate change. The National Climate Assessment indicates 16 percent of the U.S. fossil fuel carbon emissions are removed and stored (known as "carbon sequestration") by forests in the United States[3]. The report's long-term forecasts, however, suggest that in a few decades we could see dramatic reductions in the ability of America's forests to sequester carbon, so it is vital to create and sustain resilient and adaptable forests as a major carbon mitigation tool. Besides all the historical and substantial benefits to society that forests provide, maintaining forest cover is probably one of the most cost-effective ways to mitigate climate change.

[3] National Climate Assessment
http://nca2014.globalchange.gov/

The forest planning process requires plans to consider climate change as a major stressor that must be addressed and monitored, and to **plan for a future where forests are resilient to future changes.**

Forest planning is, therefore, a vital tool for bringing together assessment information that includes the best available scientific information and local knowledge. Forest plans can respond to global climate change in ways that make sense for local conditions and communities. Planning can identify approaches to balancing and prioritizing treatments that provide for local needs, while having the greatest chance of providing resilient and adaptable forest conditions. Forest plan monitoring can also provide needed feedback to determine if and how the local environment is changing, and if new forest treatments or management protections may be desirable.

Process

The assessment should include a summary of readily available information that may be of importance concerning climate change-related stressors.[4] For example, any previous climate vulnerability assessments and climate change reporting will be considered in the assessment process, as well as any information that draws on regional climate change data to develop scaled-down local climate-change estimates. The assessment should discuss the natural range of variation of environmental conditions and natural vegetation, as well as recognize that land management activities may have to be responsive to future conditions of the forests that are new and unique as the climate changes.[5] In addition to traditional and local knowledge about the forest and how it might be affected by climate change, all of this information will contribute to a baseline against which the Forest Service can evaluate future changes to the forest that may be due to climate change.

[4] The 2012 Planning Rule defines stressors as "Factors that may directly or indirectly degrade or impair ecosystem composition, structure or ecological process in a manner that may impair its ecological integrity, such as an invasive species, loss of connectivity, or the disruption of a natural disturbance regime." (36 CFR 219.19).

[5] The natural range of variation is the variation of ecological characteristics and processes over scales of time and space that are appropriate for a given management application (FSH 1909.12, Zero Code, sec.05). Natural range of variation is a tool for assessing ecological integrity and does not necessarily imply a management target or desired condition.

The forest plan must contain plan components that provide an integrated view of various dominant stressors that are expected to impact the planning area, including climate change. Depending on the information in the assessment, it is likely that various aspects of the planning area may be affected by multiple changes in climate conditions (such as temperature and precipitation) during the planning period, so various plan components should take into account these stressors. The expected stressors will vary by area and will depend on the development of better scientific information. The plan components should allow the flexibility to deal with such stressors that impact the overall health of the forest and forest-dependent communities.

Monitoring of forest plan implementation is critical to understanding how the National Forest System is responding to climate change and whether climate change is affecting the goods and services the national forests provide. The plan monitoring program should include questions and indicators that are selected because they measure changes to resources that are important to society, and this information should help the Forest Service and public understand how the national forests may be altered over time due to a changing climate. Monitoring should be used to point to those management activities that may help forest conditions become more resilient to undesirable changes being influenced by climate change. Monitoring will also help determine thresholds of change that could be avoided if management and plans are amended to respond to changing circumstances on the ground. The monitoring should have a sufficiently broad perspective to account for potential large-scale disturbance events related to the changing climate, such as large wildfires and droughts.

Possible Key Topics

- Preparing for increased stress from wildfires, insects and disease, and extreme weather
- Monitoring environmental changes over time and potential changes in goods and services the forest can provide due to climate-related stresses
- Developing management options that help forests and waters be resilient to climate stresses
- Protecting special habitats that may be refugia that protect special biological resources otherwise at risk due to climate stresses
- Devising restoration strategies to support ecological integrity
- Considering landscape-scale management approaches and broad-scale monitoring strategies

For More Information

U.S. Department of Agriculture, Forest Service. 2015. Office of the Climate Change Advisor. http://www.fs.fed.us/climatechange/advisor/

Melillo, J.M., Richmond, T.C., and Yohe, G.W., eds. 2014. Climate change impacts in the United States: The third national climate assessment. U.S. Global Change Research Program, 841 p. http://nca2014.globalchange.gov/report/sectors/forests

Peterson, D.L., Vose, J.M., Patel-Weynand, T., eds. 2014. Climate change and United States forests: Advances in global change research. New York: Springer Science. 261 p.

Sample, V.A. and Bixler, R.P., eds. 2014. Forest conservation and management in the Anthropocene: Conference Proceedings. Gen. Tech. Rep. RMRS-P-71. Fort Collins, CO: U.S. Department of Agriculture, Forest Service. Rocky Mountain Research Station. 494 p. http://www.fs.fed.us/rm/pubs/rmrs_p071.html

Stein, B.A., Glick, P., Edelson, N., and Staudt, A., eds. 2014. Climate-smart conservation: Putting adaptation principles into practice.Washington, DC: National Wildlife Federation. http://www.nwf.org/pdf/Climate-Smart-Conservation/NWF-Climate-Smart-Conservation_5-08-14.pdf

Stephens, S.L.; Agee, J.K., Fulé, P.Z., and others. 2013. Managing forests and fire in changing climates. Science. 342: 41-42. http://www.gollnerfire.com/wp-content/uploads/2014/08/ScienceVol342Stephens.pdf

U.S. Department of Agriculture, Forest Service. 2014. Forest Service Climate Change Adaptation Plan 2014. http://www.usda.gov/oce/climate_change/adaptation/Forest%20Service.pdf

Vose, J., Peterson, D., and Patel-Weynand, T., eds. 2012. Effects of climatic variability and change on forest ecosystems: A comprehensive science synthesis for the U.S. forest sector. Gen. Tech. Rep. PNW-GTR-870. Portland, OR: U.S. Department of Agriculture, Pacific Northwest Research Station. 282 p.

4 Cultural and Heritage Resources

Overview

There are many cultural and historic places, resources, and uses on national forests that are part of our national heritage and that are also important to local communities, culture, and history. The national forests also contain numerous areas of cultural and historic importance to indigenous people, including American Indians and Alaska Natives. In fact, to many indigenous people, the forests themselves are cultural resources to be treasured and revered.

Why It Matters

Cultural and historical resources and areas of tribal importance located in national forests are part of our Nation's heritage, deserving protection and preservation. Access to and management of religious and sacred sites and other areas of tribal importance located in the national forests are central to many indigenous communities for continuing their cultural and spiritual practices. Cultural and historical resources and uses are also important to communities and can support economic sustainability. Forest planning is critical to protecting and preserving cultural resources and places considered sacred to indigenous communities. These resources and places help retain and revitalize Native ways of life for future generations.

Process

The assessment should describe the cultural and historical resources and context of the planning area and surrounding landscape. It should summarize existing information about cultural and historic properties, including sites listed or eligible to be listed in the National Register of Historic Places. The assessment should also describe the overall condition and trends of cultural and historical properties, as well as the extent to which properties are being damaged by vandalism, recreational activities, and other causes.

Forest planning is critical to protecting and preserving cultural resources and areas of cultural, historical, religious, and spiritual importance, as well as retaining and returning Native ways of life for future generations.

Plan components must take into account unique cultural and historical resources, cultural landscapes, or places that may be part of the plan's distinctive role and contributions to society. Plan components will prescribe standards and guidelines that will serve to protect cultural and historical resources, and for management of areas of tribal importance. In some situations, cultural or historical resources may be of such recognized value that unique plan components may be appropriate. In other situations, the best approach may be to avoid any mention in the plan or even the planning record to maintain confidentiality of these sites. The Cultural and Heritage Cooperation Act (25 U.S.C. 3506) prohibits disclosure of some sensitive information and further provides that the Secretary is not required to disclose other sensitive information.

To protect historical properties, the National Historic Preservation Act (P.L. 89-665) requires the Forest Service to consult with appropriate entities such as State Historic Preservation Officers, Tribal Historic Preservation Officers, federally recognized tribes, and, if necessary, the Advisory Council on Historic Preservation. Use of federally recognized best management practices may greatly assist responsible officials with cultural resources or heritage assets that overlap with lands managed by other Federal agencies and Indian tribes.

Government-to-government consultation with federally recognized tribes is an important link in the process to address indigenous cultural and spiritual practices and continued access to the resources that help define Native ways of life and the exercise of treaty and other reserved rights.

Possible Key Topics

- Identification and appropriate management of cultural and historical resources in the plan area, including interpretive areas, cultural landscapes, heritage assets, and historic properties.
- Protection of and access to sacred sites and cultural use areas
- Role of Cultural and Heritage Cooperation Act, 25 U.S.C. § § 3051-3057
  - Recognition that areas may be closed at different times for tribal activities and for traditional and cultural purposes
  - Reburial of repatriated human remains and cultural items
  - Free use of forest products for traditional and cultural purposes
  - Nondisclosure of confidential information
- Role of Tribal Forest Protection Act
- Recognition of treaty and other reserved rights
- Role of intergovernmental engagement in the planning process
- Protection and enhancement of treaty resources
- Economic impacts of Federal land management decisions on tribal trust resources
- Identification of areas of tribal concern or importance through government-to-government consultation
- Recognition of tribal capacity to participate in planning, including and beyond government-to-government relations
- Recognition and use of traditional ecological knowledge

For More Information

Forest Service Tribal Relations Web site:

http://www.fs.fed.us/spf/tribalrelations/

Forest Service Heritage Program Web site:

http://www.fs.fed.us/recreation/programs/heritage/

Native American Graves Protection and Repatriation Act:

https://www.nps.gov/nagpra/

Tribal Forest Protection Act:

http://www.fs.fed.us/spf/tribalrelations/documents/policy/statutes/public_law_108-278.pdf

Home

5 Ecological Sustainability

Overview

The 2012 Planning Rule focuses on integrating forest restoration, climate resilience, watershed protection, wildlife conservation, public engagement, and opportunities to contribute to vibrant local economies into an effective planning process that will result in sustainable forests over time. To implement this vision, forest plans must provide for ecological sustainability of the plan area, within the agency's authority and the inherent capability of the land. "Ecological sustainability" is the capability of ecosystems to maintain ecological integrity, which is the quality or condition of an ecosystem when its dominant ecological characteristics (for example, composition, structure, function, connectivity, and species composition and diversity) can withstand and recover from most natural and human-caused disturbances.

Why It Matters

Providing for ecological sustainability is a core responsibility for the Forest Service in maintaining the long-term health and productivity of national forests. Ensuring that our national forests have ecological integrity means that they will be resilient and will help provide people and communities with a range of social, economic, and ecological benefits now and into the future.

Process

During the assessment phase, the Forest Service will examine available information from a range of sources about terrestrial and aquatic ecosystems and watersheds relevant to the plan area, and it will select key ecosystem characteristics that can be used to indicate the ecological integrity of the ecosystems (for example, stream flows or water quality from a watershed). The agency will identify possible system drivers and stressors, such as wildfire or invasive species, and assess their influences, describe the natural range of variation to establish a context for whether ecosystems are functioning, and assess and document the status of the ecosystems based on projected trends after considering the current plan and influence of climate change. Ecological integrity may be considered at a range of spatial and temporal scales.

Healthy forests help provide people and communities with **a range of social, economic, and ecological benefits now and in the future.**

Forest plans must contain plan components that maintain or restore the composition, structure, ecological processes, and connectivity of plan area ecosystems in a manner that promotes their ecological integrity. For example, the forest plan will likely contain desired conditions for the key ecosystem characteristics of integrity, based on the information provided in the assessment, and objectives for achieving those desired conditions. The plan could also include standards or guidelines to protect a key characteristic from undesirable effects and stressors. Issues that will be addressed by these plan components include the interdependence of terrestrial and aquatic ecosystems; contributions of the plan area to ecological conditions within the broader landscape influenced by the plan area; and conditions in the broader landscape that may influence the sustainability of resources and ecosystems within the plan area. To achieve ecological sustainability and integrity, the 2012 Planning Rule emphasizes planning and managing to enhance the ability of terrestrial and aquatic ecosystems on the plan area to adapt to change and for system drivers. These drivers include dominant ecological processes, disturbance regimes and stressors such as natural succession, wildland fire, invasive species and climate change. Planning for wildland fire and using the forest planning process to restore fire-adapted ecosystems and landscapes are also emphasized as key issues in planning for ecological sustainability and ecosystem integrity.

Furthermore, to ensure that the forest plan is consistent with maintaining ecosystem diversity, the plan must include plan components designed to maintain, restore, or promote ecosystem diversity and habitat types across the plan area. These plan components will address issues such as the key characteristics associated with each terrestrial and aquatic ecosystem type; rare aquatic and terrestrial plan and animal communities; and the diversity of native trees species.

Monitoring of ecological sustainability and ecosystem integrity will also be addressed in the forest plan. For example, forest plans will include monitoring of key ecosystem characteristics, to evaluate whether the plan is achieving desired conditions for integrity. Focal-species monitoring will also represent a part of the monitoring requirements for ecological sustainability and diversity of plant and animal communities and will be addressed in the monitoring plan for the plan area.

Possible Key Topics

- The appropriate geographic and temporal scales relevant to the identified ecosystems
- The natural range of variation and future expectations for what ecological integrity within the plan area looks like
- Identification of key ecosystem characteristics
- The importance of individual ecosystems and habitat types for providing ecosystem diversity, species diversity, and habitat for at-risk species
- Identification of key stressors of ecological integrity along with adaptive management strategies to respond to those stressors or mitigate impacts
- Identification of how current ecological integrity is influencing and being influenced by the broader landscape, and opportunities for cross-boundary complementary management
- Opportunities for landscape-scale restoration
- How managing large-scale ecosystems would maintain or restore rare or unique plant or animal communities
- Maintaining the persistence of native tree species within the plan area
- How key characteristics of the ecosystem and habitat types contribute to the broader biodiversity of ecosystems across the plan area
- Focal species selection and monitoring

6 Fire and Fuels Management

Overview

Fire and fuels management in forest planning considers opportunities to restore fire-adapted ecosystems and to work with communities and agencies on wildfire management across shared boundaries. Management of forest fuels created by a lack of natural fire, historical management, or forest restoration projects will also be considered.

Why It Matters

Forest fires have the potential to affect all national forest resources and users. Due to climatic shifts and above-normal fuel loads (dead tree and plant material), fire seasons are becoming longer and fires are becoming more severe, causing, in some cases, unnatural damage to the landscape. In 2012, the Forest Service estimated that approximately 65 million acres of the National Forest System are at high or very high risk of catastrophic fires.[6]

Restoring and maintaining fire-resilient landscapes is essential to ecological sustainability. The goal of forest restoration is to restore the functions and characteristics of healthier, more resistant and more resilient ecosystems. Healthy, resilient forests have a greater capacity to adapt to and withstand natural disturbances such as wildfires and large-scale threats to sustainability. An important part of restoring fire-adapted ecosystems involves removing excess fuels through mechanical treatment (use of chainsaws or machines), prescribed fire, or both. This approach reduces tree densities in uncharacteristically crowded forests and uses natural or prescribed fire to promote the growth of native plants and desired vegetation while reducing hazardous fuel conditions.

Hazardous fuel treatments are designed to reduce the quantity or change the arrangement of live and dead vegetation. Hazardous fuel treatments can change fire behavior, decrease fire size and intensity, divert fire away from high value resources, provide safer conditions and more options for firefighters, and lead to reduced fire suppression costs. In some cases, tree limbs, tops, and other woody materials (referred to as biomass) are removed for use as wood products or energy. In fiscal year 2013, the Forest Service completed hazardous fuels treatments on 2.6 million acres, including 1.7 million acres in the wildland-urban interface.[7]

[6] U.S. Department of Agriculture, Forest Service. 2012. Increasing the pace of restoration and job creation on our national forests. 8 p. http://www.fs.fed.us/sites/default/files/legacy_files/media/types/publication/field_pdf/increasing-pace-restoration-job-creation-2012.pdf

[7] Ecological Research Institute. 2013. The efficacy of hazardous fuels treatments: A rapid assessment of the economic and ecologic consequences of alternative hazardous fuels treatments. A summary document for policy makers. Northern Arizona University. 28 pp. http://library.eri.nau.edu/gsdl/collect/erilibra/index/assoc/D2013004.dir/doc.pdf

Restoring and maintaining fire-resilient landscapes is essential to ecological sustainability.

The wildland-urban interface is where private and other land ownerships adjoin National Forest System lands. These areas are of particular concern as nearly 65 million acres are next to or near national forests.[8] The Forest Service will complement community efforts in preparing for wildland fire by prioritizing hazardous fuels treatments in wildland-urban interface areas identified in community wildfire protection plans. Implementing the National Cohesive Wildland Fire Management Strategy and working with States, tribes, local governments, and other Federal agencies is also important for restoring fire-adapted ecosystems and reducing the risks of catastrophic fire events, working across jurisdictional boundaries to identify mutual management objectives.

Process

The assessment should typically include a discussion of:

- The natural and historical role of fire in forest ecosystems
- Historical and expected trends in acres burned
- Trends of acres managed to reduce potential for catastrophic fires
- The wildland-urban interface
- Community wildfire protection plans
- Effects of recent fires on national forest resources and processes
- Plan area vulnerabilities to catastrophic fire

Each forest plan will include direction for fire management considering: (a) the natural role of fire in ecosystems; (b) prescribed fire as a management tool to achieve desired conditions; and (c) vegetation and fuels management strategies to reduce the potential for catastrophic wildfires that harm people, communities, infrastructure, and the environment. While forest plans may make general decisions about where and under what conditions wildfires will be allowed to burn naturally, site-specific decisions about whether to put firefighters on the ground will most often be dictated by actual on-the-ground conditions.

The monitoring plan should provide information on compliance with, and effectiveness of, forest plan direction, including:

- Progress toward desired conditions of fuels, fire intensity, and other factors
- Effectiveness of hazardous fuels treatments
- Trends in acres burned by wildfires
- Measurable trends in the plan area caused by wildfires
- Ecosystem characteristics that may change over time as a result of fire

[8] National Cohesive Wildland Fire Management Strategy. https://www.forestsandrangelands.gov/strategy/thestrategy.shtml

Possible Key Topics

- Potential for catastrophic fires in the plan area
- Forestwide vegetation, fire, and fuels management strategies and desired conditions
- Management in the wildland-urban interface
- Post-fire forest management, including potential for timber salvage
- Carbon sequestration
- Fire-dependent or adapted plant and wildlife communities

For More Information

Ecological Research Institute. 2013. The efficacy of hazardous fuels treatments: A rapid assessment of the economic and ecologic consequences of alternative hazardous fuels treatments. A summary document for policy makers. Northern Arizona University. 28 pp. http://library.eri.nau.edu/gsdl/collect/erilibra/index/assoc/D2013004.dir/doc.pdf

Forest and Rangelands Web site – Fire, fuels, and land management information for government officials, land and wildland fire management professionals, businesses, communities, and interested organizations and individuals. http://www.forestsandrangelands.gov/

U.S. Department of Agriculture, Forest Service. 2012. Increasing the pace of restoration and job creation on our national forests. 8 p. http://www.fs.fed.us/sites/default/files/legacy_files/media/types/publication/field_pdf/increasing-pace-restoration-job-creation-2012.pdf

Western Forestry Leadership Coalition. 2010. The true cost of wildfire in the Western U.S. 15 p. http://www.wflccenter.org/news_pdf/324_pdf.pdf

National Cohesive Wildland Fire Management Strategy. https://www.forestsandrangelands.gov/strategy/thestrategy.shtml

7 Fish, Wildlife, and Plants

Overview

Forest plans have a lot to say about the management of habitats for fish, wildlife, and plants in the National Forest System. Each national forest contains many types of animals and plants, such as songbirds, bear, deer, trout, frogs, butterflies, flowers, and mushrooms. Their persistence depends on good habitat in forests, meadows, prairies, rivers, lakes, soil, and other places to find their food, shelter, and other necessities of life.

While the Forest Service focuses on habitat management, State or tribal natural resource agencies determine the population goals for many fish, wildlife, and plants not listed under the Endangered Species Act. Maintaining populations of native species at appropriate levels sometimes can help to sustain or enhance habitat. Providing habitat for fish, wildlife, and plant species is a very important and complicated part of forest planning, not just for the health of individual species, but for the web of life where all plants and animals depend on others for their existence. The 2012 Planning Rule simplified matters by taking a two-stage scientific approach to habitat management for these species.

In the first stage—called the ecosystem or "coarse filter" approach—the Forest Service develops plan components to maintain or restore the ecological integrity and diversity of the major ecosystems and habitat types in the national forest.[9] The goal of the coarse-filter stage of planning is to provide for the habitat needs of most animal and plant species in the national forest.

In the second stage—known as the species-specific or "fine filter" approach—the Forest Service devises additional plan components for at-risk species whose habitat needs are not adequately fulfilled by the coarse-filter plan components.

The combination of the coarse and fine-filter plan components is intended to maintain and restore ecosystems, habitats and the species that depend on them, including "at-risk species."

[9] Generally, ecological integrity means that habitat is functioning naturally and can usually withstand or recover well from events like fire and floods (36 CFR 219.19).

Many threatened, endangered, and other at-risk species **rely heavily on the national forests for their survival.**

The 2012 Planning Rule sets out requirements that apply to species that are at risk of declining on or disappearing from National Forest System lands. At-risk species fall into two broad categories:

- *Covered by the Endangered Species Act*—This category includes species that have been listed as threatened or endangered under the Endangered Species Act, along with other species that have been proposed or are candidates for listing.
- *Species of Conservation Concern*—These are species that do not fit into the first category but where scientific evidence indicates that continued persistence on the plan area is in question.

Fish, wildlife, and plants will be considered in the forest plan revision process in one of three subcategories: (1) threatened or endangered species; (2) species of conservation concern; or (3) species commonly enjoyed and used by the public, including for fishing, hunting, trapping, gathering, observance and subsistence. These categories are described in the following sections.

Threatened, Endangered, Proposed, and Candidate Species

Overview

Under the 2012 Planning Rule, forest plans are expected to provide for ecological conditions to contribute to the recovery of threatened and endangered species and to conserve species that have been proposed for listing, or are candidates for listing, under the Endangered Species Act.[10] To accomplish these requirements, the planning process identifies, manages for, and monitors the conditions that will support the recovery and conservation of these at-risk species and their habitat.

The Forest Service is not responsible for listing species as threatened or endangered; that is the job of the U.S. Fish and Wildlife Service or the National Marine Fisheries Service. These Federal agencies also develop recovery plans and designate critical habitat for threatened and endangered species.[11] During the planning process, the Forest Service will work with these two agencies to ensure that listed species are adequately considered and protected.

[10] Recovery means that a listed species has improved in status such that listing under the Endangered Species Act of 1973 (16 U.S.C. § 1531 et seq) is no longer appropriate, while conserve means to manage in order to avoid a listing.

[11] Critical habitat is land or water that is specially designated by the U.S. Fish and Wildlife Service or National Marine Fisheries Service to protect a threatened or endangered species. Management activities in critical habitat are carefully designed to prevent changes that could harm these species.

Why It Matters

National forests support much of North America's fish, wildlife, and plant heritage, including habitat for 430 federally listed threatened and endangered species. More than 12 million acres of terrestrial habitat and 22,000 miles of stream habitat on National Forest System lands are designated as critical habitat for these species.

Many threatened, endangered, proposed, and candidate species rely heavily on the national forests for their survival. National Forest System lands and forest plans are therefore major contributors to the recovery and conservation of these imperiled plants and animals. The Forest Service has long carried out actions to support the recovery of listed species. Between 2005 and 2014, national forests implemented about 800 recovery-related projects, annually, for hundreds of threatened and endangered species.[12]

Process

For federally listed, candidate, and proposed species, assessments are used to understand what changes in the current plan may be needed and to inform the development of plan components and appropriate monitoring questions and indicators for those species. Assessments are a good opportunity for the public to contribute information about species for use in the planning process, and opportunities must be provided for public engagement.

During the assessment, the Forest Service will work with Federal and State fish and wildlife agencies, local governments, tribes, and the public to form a clear base of information. The assessment identifies and evaluates existing information relevant to imperiled species, including information about the occurrence of species in the planning area, as well as the habitat conditions that are necessary to recover and conserve those species. The assessment also considers possible future stressors on endangered species—such as invasive species or loss of habitat—as well as information gaps associated with those species. Assessments provide an opportunity for the U.S. Fish and Wildlife Service and National Marine Fisheries Service to contribute information to be used in the development of a proposed plan and may help the Endangered Species Act consultation process on the plan approval go smoothly.

[12] USDA Forest Service 2012, p. 116

Forest plans must incorporate a strategy to contribute to the recovery of federally listed, and to conserve candidate, and proposed species based on the habitat conditions required by these at-risk species and previously identified in the assessment. Forest plans provide these conditions through the use of plan components (desired conditions, objectives, standards, guidelines). As discussed in the previous section, forest plans provide these conditions through a combination of ecosystem and species-specific plan components (also called the coarse and fine filters).

Monitoring key ecological conditions needed by these species provides information to enable the Forest Service to determine if a change is needed to plan components that support the endangered, threatened, proposed, and candidate species by testing assumptions, tracking changes, and measuring management effectiveness for recovery and conservation of those species. Monitoring results may also help identify information gaps concerning federally listed, candidate, and proposed species that were identified during the assessment.

If a new species is listed under the Endangered Species Act, the Forest Service would need to determine whether the current plan provides for the habitat conditions to contribute to the recovery of that species. If not, the Forest Service would initiate an amendment or revision process to provide those conditions.

Possible Key Topics

- Best available scientific information about species occurrence and their ability to persist in the planning area
- Habitat management and other approaches necessary to sustain species
- Landscape-scale plan components that can help recover and conserve multiple threatened and endangered species
- Wildlife migration and habitat connectivity
- Effects of wildlife protection on public use of the forest
- Landscape balance of wildlife use across ownerships
- Recovery plans for listed species
- Critical habitat

For More Information

U.S. Fish and Wildlife Service Web site on endangered species: https://www.fws.gov/endangered/?ref=topbar

Forest Service Web site on threatened, endangered and sensitive species: http://www.fs.fed.us/biology/tes/

U.S. Department of Agriculture, Forest Service. 2012. Final Programmatic Environmental Impact Statement, National Forest System Land Management Planning. Washington DC. http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5349141.pdf

Species of Conservation Concern

Overview

A species of conservation concern is a plant or animal that has been identified for planning attention due to scientific information indicating substantial concern about its ability to persist on the national forest over time. The 2012 Planning Rule generally requires that each plan provide for conditions that would maintain a viable population (a population that is capable of persisting on the forest over time) in the plan area for each species of conservation concern. The 2012 Planning Rule makes an exception from the viability requirement when it is not possible, due to Forest Service authority or inherent capability of the land to maintain or restore the ecological conditions necessary to maintain a viable population of a species of conservation concern within the plan area. In such instances, the 2012 Planning Rule requires the Forest Service to provide ecological conditions in the plan area that would contribute to the species' viability within its range.

Why It Matters

National forests are home to more than 3,500 rare and sensitive species. Conserving nonlisted, but at-risk, species is a good strategy to prevent endangered species listings. In addition, these species are important for diversity and ecosystem integrity.

If a species is designated as a species of conservation concern, the forest plan will include plan components to sustain the species and its habitat, and monitoring questions and indicators for key habitat conditions required by the species to evaluate effectiveness of the conservation strategy. Depending on the species' conservation needs, habitat may need to be protected or actively managed to ensure the conservation of the species. For example, areas known to support sensitive wildlife, like bat caves, may be seasonally closed to recreational use or management activities to avoid disturbing sensitive nest or den sites. In other cases, plan components developed for broader ecological sustainability will meet the needs of a species of conservation concern.

Process

The Forest Service will work with the general public, State fish and wildlife agencies, local governments, federally recognized tribes, the scientific community, and other stakeholders to gather information to develop a list of potential species of conservation concern based on criteria identified in the rule and directives. The potential list of species of conservation concern is shared with all stakeholders for input during public outreach and engagement.

Species of conservation concern will be determined by the Regional Forester and become the subject of planning efforts. Key habitat and other needs identified as being necessary to sustain the species in the planning area are used to develop forest plan components, such as desired conditions or standards. As discussed earlier, the conservation needs of the species of conservation concern can be provided through either ecosystem-scale plan components, or by plan components tailored specifically for an individual species, if necessary.

The regional Forest Service office will maintain the list of species of conservation concern for each unit. If new scientific information indicates the potential need to add or drop a species of conservation concern from the list, the Forest Service will evaluate the information to determine if there is a need for a change. If the Regional Forester decides to add a species to the list for one or more national forests, the Forest Supervisor(s) will then determine if their current plan meets the conservation requirements of the new species of conservation concern. If the forest plan meets the requirements, no change will be needed. If the plan does not meet the new requirements, it will need to be amended. The public would have an opportunity to comment on the proposed forest plan amendment.

Home

Monitoring related to species of conservation concern will focus on the ecological conditions necessary to provide for or contribute to a viable population, and it may occur at both the national forest level and at a broad-scale monitoring program level, which may occur across several national forests. Species of conservation concern-related monitoring may be done in coordination with Forest Service research, the public, and other partners. Monitoring information may indicate that there is a need to amend the forest plan to more effectively meet the conservation needs of a species. The public would have an opportunity to comment on the monitoring results and on any proposed plan amendments.

Possible Key Topics

- Best available scientific information about species' occurrence and their ability to persist in the planning area
- Habitat management and other approaches necessary to sustain the species
- Conditions necessary to sustain species of conservation concern
- Plan components to maintain or improve conditions for species of conservation concern
- Conservation needs of species of conservation concern integrated with other programs and uses on the forest
- Role of tribes when identifying species of conservation concern

For More Information

Forest Service Web site on threatened, endangered and other at-risk species: http://www.fs.fed.us/biology/tes/

NatureServe Conservation Status Ranks: https://www.fws.gov/endangered/?ref=topbar

State Wildlife Action Plans: http://www.teaming.com/state-wildlife-action-plans-swaps

U.S. Fish and Wildlife Service Web site on endangered species: http://www.fws.gov/endangered

Focal Species

The 2012 Planning Rule requires the identification of focal species as part of the plan monitoring program; every plan monitoring program must identify one or more focal species and one or more questions and associated indicators addressing their status.

Focal species are those species whose status provides information about the integrity of the larger ecosystem in which they belong. The requirement for monitoring questions that address the status of focal species is linked to the 2012 Planning Rule's coarse-filter approach for providing diversity of plant and animal communities and the persistence of native species in the plan area. Focal-species monitoring is used as means of understanding whether a specific ecological condition or set of conditions is present and functioning in the plan area. Focal-species monitoring is not intended to provide information about the persistence of any individual species, nor are focal species intended to serve as a proxy for other species. Instead, they are species whose presence, numbers, or status are useful indicators to provide insight into the integrity of the larger ecological system, the effects of management on key ecological conditions, and the effectiveness of the plan components intended to maintain the diversity of plant and animal communities and support the persistence of native species in the plan area.

The concept of focal species was included in the 2012 Planning Rule solely for the purpose of monitoring: plans will not include plan components for focal species unless they are separately identified to meet other rule requirements (for example, the red cockaded woodpecker might be selected as a focal species and also be listed as a Threatened species, or cutthroat trout may be both a focal species and a species commonly used and enjoyed by the public). The 2012 Planning Rule does not require managing habitat conditions for focal species, nor does it confer a separate conservation requirement for these species simply based on their being selected as focal species.

The 2012 Planning Rule does not specify how to monitor the status of focal species; for example, the 2012 Planning Rule does not require monitoring species' population trends. Monitoring methods may include measures of abundance, distribution, reproduction, presence/absence, area occupied, survival rates, or others. The objective is to choose the monitoring technique that will provide the most useful coarse-filter information, not the monitoring technique that necessarily provides the most information about the species itself. For example, for the purpose of focal-species monitoring, a plan might include presence/absence monitoring for red cockaded woodpeckers to track the progress towards a desired condition for long leaf pine

8 Fishing, Hunting, Trapping, and Gathering

Overview

When developing plan components under the 2012 Planning Rule, the Forest Service must consider habitat conditions that support fish, wildlife, and plants that the public values for hunting, fishing, trapping, gathering, observing, subsistence, and other activities. The Planning Rule explicitly underscores the importance of collaboration with other Federal agencies, tribes, Alaska Native Corporations, and State and local governments to address the needs of species that are a foundation of these traditional or public uses.

Why It Matters

National forests play an important role in fishing, hunting, trapping, and gathering. Approximately 40 percent of sportsmen and women who hunt do so on public land.[13] Data collected by the U.S. Fish and Wildlife Service show that approximately 37.4 million Americans participated in hunting, fishing, or both in 2011.[14] Hunting and trapping can also serve an important ecological role by regulating populations of wildlife species, such as deer, that can affect ecological sustainability. The Forest Service's National Visitor Use Monitoring data show that 15 percent of respondents identified hunting or angling as the primary purpose for visiting national forests.[15] Hunting and angling is second only to hiking and walking as the primary form of dispersed recreation on national forests. Sometimes, those activities are related to subsistence use, supporting the food needs for traditional and native users and people in rural communities. Many visitors also come to national forests to view and photograph fish, wildlife, and plants; for example, visitors flock to see spring wildflowers, fall foliage, bird migrations, and wildlife. These visits are important contributors to economic vitality in forest communities and connect people with the outdoors.

...the 2012 Planning Rule directs the Forest Service **to consider habitat conditions that support fish, wildlife, and plants the public values for hunting, fishing, trapping, and gathering.**

[13] U.S. Fish and Wildlife Service and U.S. Census Bureau 2011, table 27.

[14] U.S. Fish and Wildlife Service and U.S. Census Bureau. 2014. 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (Revised 2014). FHW/11-NAT, Washington, DC.

[15] National Visitor Use Monitoring data available at: apps.fs.fed.us/nfs/nrm/NVUM/results

Process

The assessment should identify the species of fish, wildlife, and plants commonly used or enjoyed by the public; the conditions and trends associated with these species and their habitats; and the contribution of the use and enjoyment of these species to social and economic sustainability. Information, including existing data and trends of visitor use, will be assembled on the fish, wildlife, and plant species commonly enjoyed and used by the public for fishing, hunting, trapping, gathering, observing, and subsistence. The assessment should consider how the plan area contributes to key social, cultural, and economic conditions, including the landscapes and levels of access important for these public uses within or near the plan area.

The Forest Service will coordinate with Federal, State, tribal, and other governmental agencies to determine the habitats and ecological conditions needed to aid in sustaining populations of species important to people, including anglers, hunters, trappers, and gatherers to help support, if appropriate, the population goals and objectives set by those agencies. The Forest Service will also identify the contribution of fish, wildlife, and plant species to economic and social sustainability, including contributions related to subsistence use and wildlife and plant viewing.

Monitoring can be designed to provide information on whether adequate opportunities for fishing, hunting, trapping, gathering, observance and subsistence use are being provided. Based on evaluation of monitoring results, there could be recommendations to change the desired habitat conditions, which would require a plan amendment with public review and comment.

Possible Key Topics

- Consideration in the assessment of the social, economic, ecologic, and subsistence role of fishing, hunting, trapping, and gathering on the national forest and the broader landscape, along with wildlife viewing and subsistence use.
- Consideration of the status and trend of species' populations commonly pursued on the forest and the ecological conditions associated with those species.
- Consideration of management of terrestrial and aquatic habitat that will aid in sustaining populations of target species consistent with the goals and objectives set by Federal, tribal, and State natural resource agencies, where consistent with other rule requirements.
- Management of motorized and nonmotorized access scenarios that will provide adequate access for anglers, hunters, trappers, and gatherers, consistent with other rule requirements.
- Consideration of visitation for wildlife-viewing activities.
- Consideration of tribal treaty rights and subsistence uses.

For More Information

U.S. Fish and Wildlife Service and U.S. Census Bureau. 2014. 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (Revised 2014). FHW/11-NAT, Washington, DC.

Forest Service Web site on hunting: http://www.fs.fed.us/biology/wildlife/hunters.html

National Stream and Aquatic Ecology Center Web site: http://www.fs.fed.us/biology/nsaec/index.html

9 Forests and Timber Management

Overview

A little more than 147 million acres of the National Forest System are forested. One of the original purposes of the national forests was to provide a continuous supply of timber for lumber and other wood products to meet the needs of the American people. Many forest product companies and their communities rely heavily on the national forests for their timber supply. During the forest planning process, the Forest Service will analyze current forest conditions, develop desired conditions and objectives to achieve those desired conditions for the plan area, and identify the lands in the plan area that are suitable for timber production. The forest plan will also identify the maximum amount of timber that could be harvested in the plan area on a sustained-yield basis, as well as the projected timber sale quantity, which is an estimate of the amount of timber the Forest Service will sell during the 15-year plan period.

Why It Matters

Many national forests face serious threats from catastrophic fires, insect epidemics, and disease. Approximately 65 million acres of the national forests are at high or very high risk of catastrophic fires. In the last 15 years, bark beetle epidemics have impacted 48 million acres in the Intermountain West. Finally, the 2013–27 National Insect and Disease Forest Risk Assessment predicts 25 percent or more of trees will die on 71.7 million forested acres on all ownerships and 37 million acres of the national forests over the next 15 years.[16]

The national forests contain 45 percent of the Nation's softwood timber, as well as millions of acres of hardwood timber. Where appropriate, timber harvest can improve the long-term health and productivity of forests, simultaneously contributing to other multiple uses and forest values. Timber harvest creates jobs and is economically important to many communities. Plus, timber harvest provides valuable wood products for the Nation.

[16] Krist, Jr. F.J., Ellenwood, J.R., Woods, M.E., and others. 2014. National insect and disease forest risk assessment. Forest Health Technology Enterprise Team Report 2014-01. Fort Collins, CO: U.S. Department of Agriculture, Forest Service. 209 p. http://www.fs.fed.us/foresthealth/technology/pdfs/2012_RiskMap_Report_web.pdf

Properly managed, **sustainable timber harvest can contribute to meeting forest plan desired conditions and objectives** for vegetation, forest and watershed health, and wildlife habitat.

Properly managed, sustainable timber harvest can contribute to meeting forest plan desired conditions and objectives for vegetation, forest and watershed health, and wildlife habitat. Timber harvest can be used to maintain and restore wildlife habitat and to increase forest diversity and resiliency by maintaining a full range of tree ages and sizes within the forest. Forest management projects can also decrease hazardous fuels where needed to reduce the potential for catastrophic wildfires, as well as risks to forest health resulting from insect epidemics and diseases. Harvest can also be designed to encourage growth of sawtimber, contributing to economic objectives. In addition, funds generated from timber sales can be used to complete work in the national forests such as tree planting, wildlife habitat enhancement, and watershed improvements.

Process

The assessment should include a description of current forest conditions and trends, including forested acreage; species composition; age and structural stage diversity; growth and mortality; information on lands that may be suitable for timber production; current harvest levels; economic benefits; and threats from fire, insects, diseases, and climate change.

When developing plan components, the Forest Service will analyze and compare options for forest plan direction, including:

- Determining lands suitable for timber production
- Establishing desired conditions, including the mix of age classes or structural stages, numbers and distribution of snags, volume and distribution of down woody material, species mix, forested acreage, and wildlife habitat conditions
- Determining the following:

  Sustained Yield Limit—the amount of timber that could be removed annually in perpetuity on a sustained-yield basis from all lands suitable for timber production, assuming those lands were managed to produce timber without considering other multiple uses or fiscal or organizational capability

  Projected Wood Sale Quantity (PWSQ)—an estimate of the quantity of all timber and other wood products expected to be sold annually during the plan period

  Projected Timber Sale Quantity (PTSQ)—an estimate of the quantity of timber that meets utilization standards to be sold annually during the plan period

Both the PWSQ and PTSQ must be consistent with all plan components and consider the fiscal capability of the planning unit. In anticipating the fiscal capability of the unit, a plan could include an estimate based on projected financial resources, and it could include an additional estimate to reflect what could be accomplished if additional resources became available. Neither the PWSQ nor the PTSQ includes salvage or sanitation harvests.

The revised forest plan will also contain specific content required by the National Forest Management Act (P.L. 94-588) regarding the suitability of lands for timber production and standards and guidelines to guide and impose certain limitations on timber harvest.

The monitoring program will provide information on the effectiveness of forest plan direction, including progress toward desired forest conditions, and achievement of projected timber outputs.

Based on evaluation of monitoring results, there could be recommendations to change the desired forest conditions or projected timber outputs, either of which would require a plan amendment with public review and comment.

Possible Key Topics

- Projected outputs of sawtimber, pulp, firewood, and other timber products
- Projected outputs of nontimber forest products, such as mushrooms, beargrass, huckleberries, and medicinal plants
- Sustainable energy, including biomass and firewood
- Suitability of national forest lands for timber production
- Contribution of timber management to forest health and ecological integrity
- Economic contributions to communities and local governments

For More Information

Krist, Jr. F.J., Ellenwood, J.R., Woods, M.E., and others. 2014. National insect and disease forest risk assessment. Forest Health Technology Enterprise Team Report 2014-01. Fort Collins, CO: U.S. Department of Agriculture, Forest Service. 209 p. http://www.fs.fed.us/foresthealth/technology/pdfs/2012_RiskMap_Report_web.pdf

Oswalt, S.N.; Smith, W.B; Miles, P.D.; Pugh, S.A. 2014. Forest Resources of the United States, 2012; a technical document supporting the Forest Service 2015 update of the RPA Assessment. Gen. Tech. Rep. GTR-WO-91. Washington, DC: U.S. Department of Agriculture, Forest Service. 336 p. http://www.srs.fs.usda.gov/pubs/47322

U.S. Department of Agriculture, Forest Service. 2012. Increasing the Pace of Restoration and Job Creation on Our National Forests. Washington, DC: U.S. Department of Agriculture, Forest Service. 9 p. http://www.fs.fed.us/sites/default/files/legacy_files/media/types/publication/field_pdf/increasing-pace-restoration-job-creation-2012.pdf

Forest Service Forest Management Web site: http://www.fs.fed.us/forestmanagement/

10 Grazing and Rangelands

Overview

Grazing continues to be one of the most widespread uses on National Forest System lands. Rangeland uses include a wide variety of tangible and intangible products. Tangible products include forage for grazing and browsing animals, wildlife habitat, water, minerals, energy, recreation, and some wood products. Intangible products include natural beauty and wilderness.

The Forest Service currently administers 20 national grasslands consisting of almost 4 million acres of Federal land. National grasslands are located in 13 States, but are concentrated in the Great Plains States of Colorado, North Dakota, South Dakota, and Wyoming, which contain more than 82 percent of the total national grassland acreage. Overall, the Forest Service manages 96 million acres of rangeland, comprised of both grasslands and the many national forests which include rangeland.

Why It Matters

Today, the Forest Service concentrates its efforts on managing vegetation resources across the range landscape to serve a multitude of resource needs. Grazing on national forests and grasslands is interrelated with many of the areas of emphasis contained within the 2012 Planning Rule, including wildlife and wildlife habitat, ecosystem restoration, and watershed protection.

In addition to providing forage for domestic and wild animals, national grasslands and range resources can provide a whole host of benefits to society. When properly functioning, rangelands mitigate drought and floods; generate and preserve soils and renew their fertility; contribute to climate stability; provide wildlife habitat; protect watersheds, streams, and river channels; and provide recreation opportunities for the public. Properly managed sustainable livestock grazing can contribute to meeting forest plan objectives for vegetation management, watershed protection, and habitat restoration. Conversely, improper grazing can negatively impact achieving these plan objectives.

Grazing continues to be **one of the most widespread uses on National Forest System lands.**

National forest-dependent grazing supports ranching which is an integral part of the social, cultural, and economic fabric of many communities within the broader landscape. National Forest System grazing permits are often an integral part of a private-land ranching operation.

Process

The assessment should identify and evaluate information on grazing such as how the plan area currently provides grazing for livestock; conditions and trends of the forest rangeland vegetation; presence and condition of grazing-related improvements; and how the rangelands contribute to ecological, social, cultural, and economic sustainability. In addition to Forest Service data and assessments, important sources of information can include permittee monitoring; joint cooperative monitoring; community, local and State government, and academic economic assessments; and other information.

The forest plan must provide for ecological sustainability, ecosystem services, and multiple uses including grazing. The plan may include desired conditions for grazing lands and the type and level of grazing anticipated in the plan area, including the need to decrease or increase current levels of livestock grazing. The plan will also recognize potential adverse interactions between domestic livestock and native species and provide appropriate plan components to avoid or mitigate these impacts. The plan must also include components that guide the plan area's contributions to social, cultural, and economic sustainability, including the contributions of sustainable grazing.

While the details of site-specific grazing management are addressed in allotment management plans, ideas and strategies relative to overall rangeland management and the role of grazing should be brought forward in the planning phase.

Rangeland monitoring done under the terms of grazing permits can contribute to overall plan monitoring required under the plan. Grazing permittees are encouraged to participate in plan monitoring as well as in site-specific rangeland monitoring.

Possible Key Topics

- Permit renewal
- Monitoring information about trends and desired conditions
- Sustainability (socioeconomic, cultural, and ecological)
- Allotment management plans
- Riparian management
- Range improvements
- Soil conditions
- Invasive plant species
- Access
- Intersection between public and tribal grazing opportunities (treaty rights)
- Domestic sheep/bighorn interactions
- Domestic livestock/wild ungulate interactions (e.g. bison, deer, elk)

For More Information

Forest Service Rangelands Web site: http://www.fs.fed.us/rangelands/

11 Renewable and Nonrenewable Energy and Mineral Resources

Overview

Renewable energy resources on national forests include wind, hydropower, solar energy, biomass, and geothermal energy. Nonrenewable energy resources include coal, oil, gas, and others. In addition, national forests contain a variety of non-energy producing mineral resources.

Mineral resources include locatable minerals (such as gold, silver, and copper), leasable minerals (such as oil, gas, coal, phosphate, and geothermal energy), and salable minerals (such as common varieties of sand, gravel, and stone). Forest Service authority for the surface management of lands with mineral resources varies by the type of minerals involved (locatable, leasable, salable), land status (lands reserved from the public domain or acquired), and who owns the minerals (Federal or private).

National Forest System lands may also provide corridors for electric transmission lines or oil or gas pipelines.

In the land management plan, plan components applicable to mineral, renewable, and nonrenewable energy development must be within Forest Service authority and consistent with applicable laws and regulations, including the other requirements of the 2012 Planning Rule. Forest Service planning for mineral exploration, leasing, and development is part of a regulatory process that may involve several other Federal, State, and local agencies.

Depending on the specific mineral and applicable laws and regulations, the Forest Service may identify lands in the Federal estate that may or may not be suitable or available for mineral or energy development. The Forest Service manages surface use for the exploration and development of minerals and nonrenewable energy resources on National Forest System lands. The Forest Service has sole discretion over the management of salable minerals, subject to existing rights, and making lands available for oil and gas leasing. Also, leasing of coal, oil, gas, and geothermal resources on all National Forest System lands, as well as all other leasable minerals on acquired National Forest System lands, is dependent upon Forest Service consent.

The national forests contain valuable mineral and energy resources and may provide needed corridors for electric transmission lines and oil or gas pipelines. **These resources are important to national, regional, and local economies.**

Why It Matters

Renewable and nonrenewable energy and mineral resources on national forests contribute to national, regional, and local economies. Some minerals are considered critical or strategic resources that are needed for national security or for high tech uses. Current mineral production on National Forest System lands exceeds $5 billion annually. Past, existing, and potential future development can also have environmental impacts and implications for other multiple uses.

Process

The assessment should identify and evaluate relevant information, such as the current type, extent, and general location of energy and mineral activity and energy facilities; potential of the plan area for energy and mineral activity; trends that affect energy and mineral activity in the plan area; known abandoned mines or mining-related hazards in need of reclamation or restoration; and existing energy transmission corridors and the potential for new transmission corridors. The Forest Service should coordinate with the Bureau of Land Management regarding energy and mineral resources. The assessment may also evaluate known geologic hazards if they occur at a scale that would merit evaluation for a forest plan.

The 2012 Planning Rule requires that in the development of plan components, the Responsible Official consider renewable and nonrenewable energy and mineral resources, and the appropriate placement and sustainable management of infrastructure, such as utility corridors.

When including plan components that provide for renewable or nonrenewable energy or mineral resources, the forest service will specify appropriate environmental safeguards and consider how these services support social and economic sustainability.

Possible Key Topics

- Reclamation requirements
- Standards and guidelines for exploration activities
- Ecologic, social, and economic effects of extracting mineral and energy resources
- Leasing availability
- Coordination with other responsible agencies
- What decisions will be made in the plan, concurrently with the plan, or that may occur subsequent to and consistent with the plan decision.

For More Information

Forest Service Minerals Web page: http://www.fs.fed.us/geology/minerals.html

12 Social and Economic Sustainability

Overview

The 2012 Planning Rule requires that forest plans recognize the role National Forest System lands play in the social and economic sustainability of communities dependent on and near the national forests. The Planning Rule also highlights how forest planning can help both the public and the Forest Service understand the many ways in which national forest management can enhance local, regional, and national economies and communities.

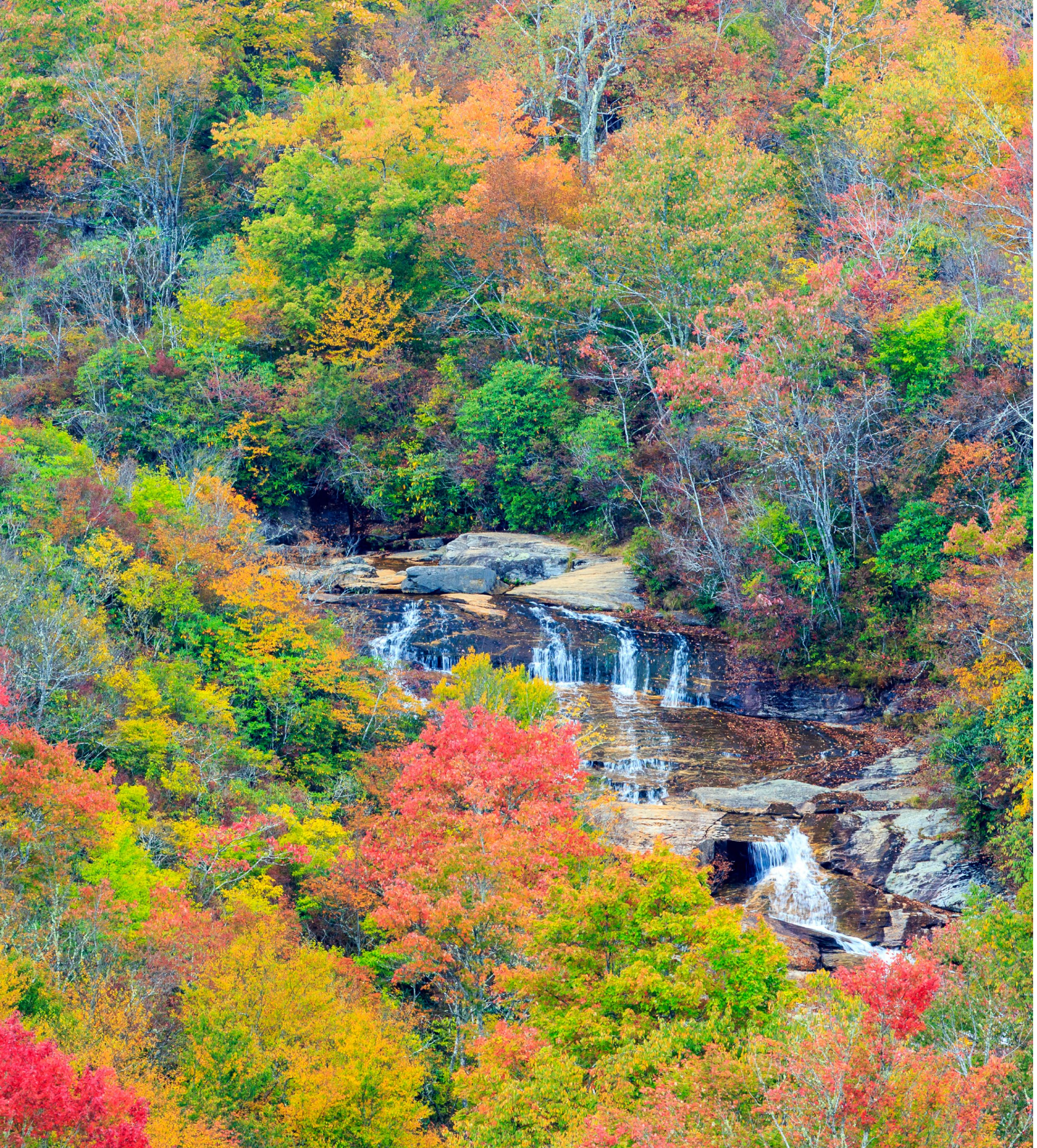
Why It Matters

The 2012 Planning Rule recognizes and supports the multiple use mandate for management of National Forest System lands, and requires that plans contribute to social and economic sustainability. Many communities near National Forest System lands benefit from recreating visitors; others are heavily dependent on grazing, timber harvesting, mining, or other extractive resource industries. Cultural and historic sites and areas of tribal importance are also important for social and economic sustainability. National forests also contribute to the health of communities, for example, by providing ecosystem services[8] like clean air and water and attracting businesses and residents because of outdoor amenities. Regardless of the primary area of influence, strong consideration should be given to the social structure and economic vitality of communities associated with national forests.

Process

Economic and social impacts of national forest lands on communities next to and dependent on those lands will be considered in all phases of the planning process. In the assessment phase, information must be identified and evaluated regarding social, cultural and economic conditions in the area; benefits people obtain from National Forest System lands; multiple uses and their contributions to the economy; recreation; energy and mineral resources; infrastructure; and land use and access. The assessment will also include an inventory of ecosystem services available from the national forest.

The 2012 Planning Rule emphasizes the need to manage the national forests to **contribute to ecological, social, and economic sustainability.**



Plans are required to provide for multiple uses, including outdoor recreation, range, timber, watershed, wildlife, and fish. To meet this requirement and provide for integrated resource management, responsible officials will consider a range of uses, values, and benefits that may be important to communities and relevant to the unit, such as outdoor recreation, range, timber, water, wildlife, wilderness, energy, minerals, and ecosystem services, as well as issues such as sustainable infrastructure needs, opportunities to work with neighboring landowners, habitat conditions needed for hunting, fishing, subsistence, public drinking water supplies, and reasonably foreseeable risks to sustainability.

The Forest Service will monitor social and economic effects of forest plan components and management, as part of the adaptive management cycle.

Possible Key Topics

- Jobs associated with national forest system lands
- Secondary jobs and infrastructure dependent on forest benefits
- Influence of national forest system lands on the social character of neighboring communities
- Influence of national forest system lands on American society and cultural identity even in areas not adjacent to those lands
- Ecosystem services provided from national forests and the socioeconomic effects of those services
- Subsistence economies and their reliance on national forest resources

For More Information

Headwaters Economics Web site: http://headwaterseconomics.org/

National Association of Counties Web site: http://explorer.naco.org/

Bureau of Economic Analysis Web site: http://bea.gov/

Bureau of Labor Statistics Web site: http://www.bls.gov/

Economic Research Service Web site: http://ers.usda.gov/

County Business Patterns (Census Bureau) Web site:
http://www.census.gov/econ/cbp/index.html

County Quick Facts (Census Bureau) Web site: http://quickfacts.census.gov/qfd/index.html

American Community (Census Bureau) Web site: http://www.census.gov/programs-surveys/acs/

Home

13 Soil Resources

Overview

The soil resource is critically important to land management planning because nearly all natural resources found on national forests are dependent on healthy soils for their integrity. Soil provides nutrients, water, oxygen, and heat to natural land areas, so understanding the ability and capacity of soil to support an ecosystem plays an important role in land management decisions. As President Franklin D. Roosevelt said, "The history of every Nation is eventually written in the way in which it cares for its soil." [17]

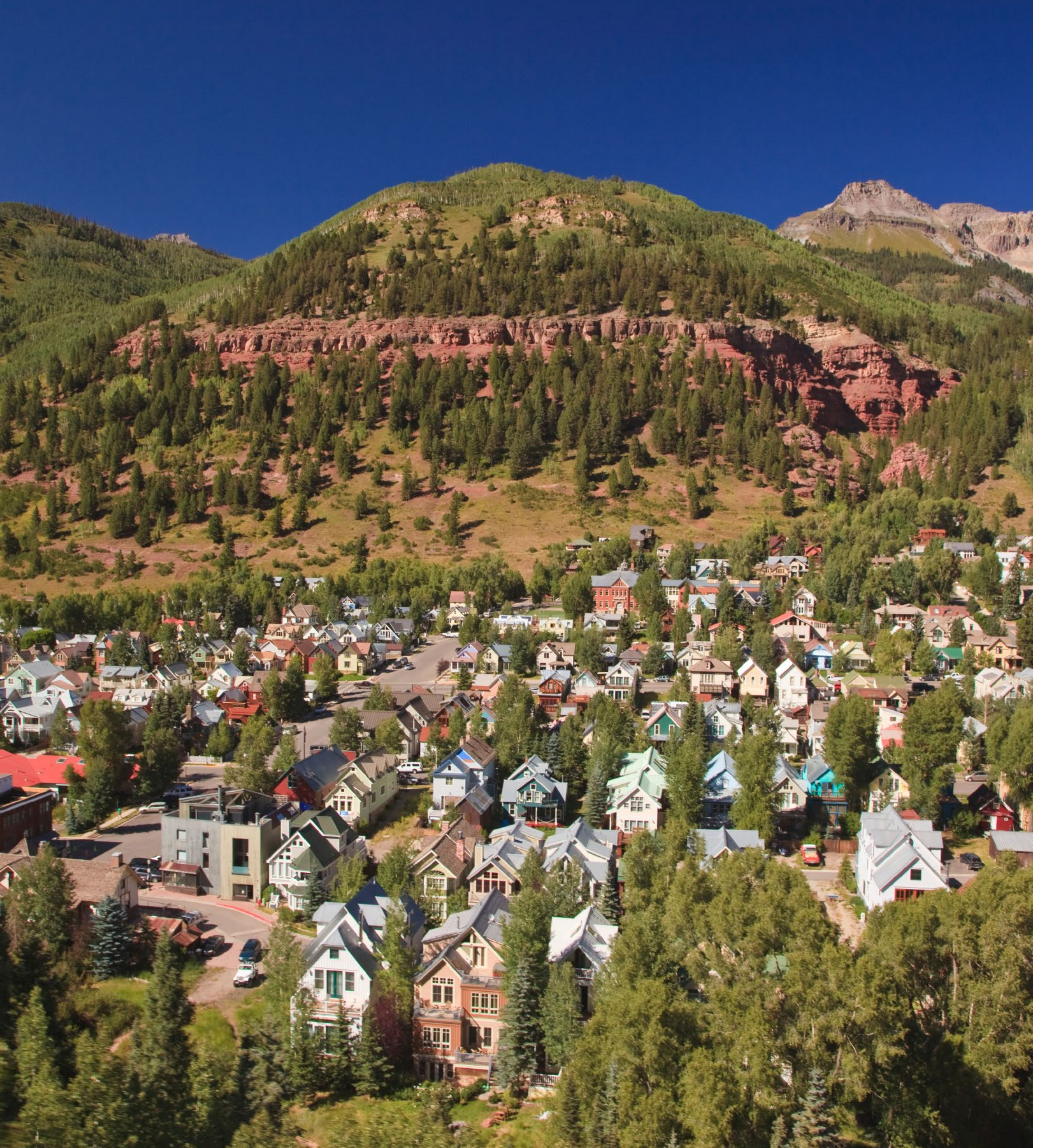
Why It Matters

Healthy soil gives us clean air and water, bountiful crops and forests, productive grazing lands, diverse wildlife, and beautiful landscapes. Soil helps control where rain, snowmelt, and irrigation water goes, and the diversity and productivity of living things depend on healthy soils. The minerals and microbes in soil are responsible for filtering, buffering, degrading, immobilizing, and detoxifying organic and inorganic materials, including industrial and municipal byproducts and atmospheric deposits. Properly functioning soils can protect crops from pests and diseases and are home to a large proportion of the world's genetic diversity. Soils help cycle carbon, nitrogen, phosphorus, and many other nutrients, which are stored, transformed, and cycled in the soil. Finally, soil structure provides a medium for plant roots, and provides support for human structures and protection for archaeological treasures.

Management choices affect the amount of soil organic matter, soil structure, soil depth, and water and nutrient holding capacity. Different soil types respond differently to management depending on the inherent properties of the soil and the surrounding landscape. Without properly functioning and healthy soils, healthy forests cannot grow and produce numerous benefits for society and future generations.

Nearly all natural resources found on national forests are **dependent on healthy soils for their integrity.**

[17] Presidential Statement on Signing the Soil Conservation and Domestic Allotment Act. March 1, 1936.



Process

During the assessment process, the Forest Service will review existing sources of information regarding soil resources, geology, landforms (geomorphology), and other such ecological conditions in the plan area important to support key ecosystem characteristics. In addition, when assessing soils and soil productivity, the Forest Service may consider existing soil surveys certified by the National Cooperative Soil Survey; information on vegetation suitability, productivity, and natural range of variation; standard soil interpretations from a terrestrial ecological unit inventory; approximations of soil-landform units and attribute data derived from remotely sensed data or from expert opinion; and ecological site descriptions of the plan area developed in cooperation with USDA's Natural Resources Conservation Service.

As the Forest Service assesses this information, it will identify existing inventories of soil conditions and improvement needs as well as important attributes, characteristics, or processes of soils including soil erosion and sedimentation that make them susceptible to loss of integrity resulting from specific uses, disturbances, or environmental change. Based on this information, the Forest Service will describe, in the assessment, the existing conditions and trends of soil resources and soil quality.

The forest plan will contain several plan components relating to the management of the soil resource. When designing these components, the Forest Service should consider plan direction regarding restoration of degraded areas, management of forest vegetation that may affect soil productivity and function, protection of the biological properties of soils, maintaining or increasing the soil's ability to store carbon, and mitigation of management effects on soils.

Possible Key Topics

- Location and cause of existing soil conditions
- Management implications of changes in forest management (e.g., a change in the road network may affect soil conditions)
- Changes in soil health due to changes in the availability of soil nutrients and water
- The effects of pollution (e.g., acid deposition) on soil chemical properties
- Storage of carbon in forest soils and changes over time
- Loss of topsoil and forest floor material due to accelerated erosion

For More Information

NRCS Soils information. USDA, Natural Resources Conservation Service, http://www.nrcs.usda.gov/wps/portal/nrcs/site/soils/home/

US Forest Service soils information. USDA, Forest Service, http://www.fs.fed.us/biology/soil/

US Forest Service soil quality information. USDA , Forest Service, http://www.nrs.fs.fed.us/fia/topics/soils/

US Forest Service Water, Air and Soil information. USDA, Forest Service, http://www.fs.fed.us/science-technology/water-air-soil

NRCS Web Soil Survey. USDA, Forest Service, http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

14 Sustainable Recreation

Overview

Recreation is the gateway through which most Americans experience their national forests, providing physical, mental, and spiritual benefits to individuals and important social and economic contributions to communities. Recreation also helps connect individuals to the land, fostering a sense of stewardship and connection to place. The 2012 Planning Rule requires plan components for sustainable recreation, defined as a range of recreational settings, opportunities, and access that can be sustained over time.

Why It Matters

Outdoor recreation benefits individuals and communities by providing opportunities for connection to nature, healthy outdoor exercise, social bonds, and in bringing visitors and businesses through the amenities offered by public lands. Americans and people from around the world make approximately 150 million visits to national forests and grasslands each year. These visits provide an important contribution to the economic vitality of communities. Spending by recreation visitors in areas surrounding national forests amounts to around $10 billion annually and supports thousands of related jobs.

By managing for sustainable recreation on forests and grasslands, national forest management provides opportunities for tourism-related businesses and jobs in nearby communities. Recreation is also a critical part of social sustainability, connecting people to nature, providing for outdoor activities that promote long-term physical and mental health. Recreation also enhances the American public's understanding of their natural and cultural environments, and catalyzing their participation and stewardship of the natural world.

Forest plans create the blueprint for management of National Forest System lands and lay the groundwork for protecting and enhancing opportunities for sustainable outdoor recreation. Recreationists' participation in the plan development is key. The recreation community can provide essential information about recreational uses and values of national forests. Participating in plan development will result in a better plan overall, representing the interests of recreationists and reducing the potential for conflict with other uses.

Recreation is the gateway **through which most Americans experience their national forests.**

Process

Early and consistent engagement from recreation communities will result in the most effective representation of recreation interests. The assessment must document recreation settings, opportunities, access, and scenic character, in addition to recreational infrastructure, benefits to people, and the contributions of recreation to the local, regional, and national economies. This phase is an important opportunity for recreation users of the national forests to educate the Forest Service about the places they go, the things they do, the values that draw them to the land, and the benefits they derive from their experiences.

The 2012 Planning Rule requires that each plan include plan components that provide for sustainable recreation, including recreation settings, opportunities, access, and scenic character. Recreation opportunities can include non-motorized, motorized, developed, and dispersed recreation on land, water, and in the air. In providing for multiple uses, plans will also consider aesthetic values, ecosystem services (such as recreational experiences), and habitat conditions specifically for species used and enjoyed to support activities such as hunting, fishing, wildlife observation, and subsistence. The 2012 Planning Rule requires that the development of plan components take into account outdoor recreation that contributes to local, regional, and national economies in a sustainable manner and consider recreation settings and opportunities, trails, and appropriate placement and sustainable management of recreational facilities. In addition, the rule requires that the development of plan components take into account opportunities to connect people with nature. It also requires protection and appropriate management of wilderness areas, wild and scenic rivers, other designated areas, cultural and historic resources, and areas of tribal importance. During plan development, the public will have the opportunity to raise issues relevant to recreation and the interests of various outdoor recreationists.

Monitoring questions and indicators must be included for the status of visitor use and satisfaction, and progress towards meeting recreation objectives. Recreation users of the national forests can play an important role in implementing and monitoring the plan.

Possible Key Topics

- Quality of recreational experiences
- Availability, adequacy, and sustainability of recreational infrastructure
- Access issues
- Planning to avoid recreational use conflicts
- Environmental effects of different types of recreation
- Economic contributions of recreation
- The importance of recreation in contributing to social sustainability and connecting people to the outdoors

For More Information

Forest Service Recreation Web page: http://www.fs.fed.us/recreation/

15 Water and Watersheds

Overview

Eighty percent of the Nation's fresh water originates from forests, and the national forests are the headwaters of many streams and rivers. One in five Americans relies on national forest lands as the primary source of their drinking water.[18] Management of watersheds, waters, and associated riparian areas is an essential component of the overall forest management. The quantity and quality of water originating from National Forest System lands are critical to agriculture, livestock, fish and wildlife, recreation, and to community needs within the area of influence and beyond.

Why It Matters

One of the original purposes for establishing the National Forest System was to protect water resources. National Forest System lands contain 400,000 miles of streams, three million acres of lakes, and many aquifer systems that together serve as the source of drinking water for more residents of the United States than any other source. They contain habitat for more than 550 rare, threatened, and endangered aquatic species; provide outdoor recreation to millions of visitors per year near streams, lakes, and other water resources; and support access and operations for upwards of 170 hydroelectric facilities. National forests alone provide 18 percent of the Nation's supply of drinking water and over half the water in the West. In addition to be being a fundamental aspect of ecosystem integrity and ecological sustainability, water resources are key drivers of socio-economic sustainability.

Forest management can affect the amount and timing of water flows, and multiple uses on the forest can impact water quality and quantity. As climate change, drought, fires, flooding, land use and development patterns, roads, and other stressors impact water and related resources, planning for adaptive management will be critical, as will working in partnership with other land managers where water resources or influences cross jurisdictional boundaries.

Preventing actions that would negatively affect water quality is much more efficient and effective than attempting to repair the damage. Forest management strategies that reduce the potential for catastrophic fires may be essential in maintaining long-term water quality. Similarly, reducing or eliminating the effects of various human-caused stressors on aquatic systems, like roads, agricultural runoff, or damaged riparian areas, can help contribute to healthy, functioning watersheds. Additionally, a properly functioning forest will absorb and release water on a regular and controlled basis, which has important implications for fish and wildlife, overall forest health, and downstream uses.

[18] U.S. Department of Agriculture, Forest Service. 2000. Water and the Forest Service. FS-660.January 2000. http://www.stream.fs.fed.us/publications/PDFs/water_and_FS.pdf

One in five Americans relies on national forest lands as the primary source of their drinking water.

Process

The assessment should include an analysis of the condition of watersheds; the quantity, quality, timing, and distribution of water; the nature and extent of both consumptive and nonconsumptive water uses; the ecological, social, cultural, and economic roles that water resources play; and the existence and nature of existing water rights. The assessment will be done both for the plan area and the broader landscape.

The 2012 Planning Rule requires that plans identify watersheds that are a priority for restoration and maintenance. The rule requires all plans to include components to maintain or restore the structure, function, composition, and connectivity of aquatic ecosystems and watersheds in the plan area, taking into account potential stressors, including climate change, how they might affect ecosystem and watershed health and resilience. Plans are required to include components to maintain or restore water quality and water resources, including public water supplies and drinking water sources, groundwater, lakes, streams, wetlands, and other bodies of water. The Forest Service will incorporate best management practices into the plan, using national best management practices tailored to local conditions and needs. The Forest Service will coordinate with State, local, and tribal water managers and with other water users to ensure appropriate resource protection. Social, cultural, and economic impacts of plan components for water resources and riparian areas should be identified.

Plans are also required to include direction to maintain and restore the ecological integrity of riparian areas. Because riparian resources across National Forest System units are very diverse, the 2012 Planning Rule requires special attention to land and vegetation within approximately 100 feet of all perennial streams and lakes and to prevent management practices that have serious or adverse impacts.

The monitoring program will contain one or more monitoring questions and associated indicators that address watershed conditions; implementation and effectiveness of best management practices; potential influences on water resources; and changes in water quality, flows, and levels.

Possible Key Topics

- The role of water resources and watersheds in contributing to ecologic, social, and economic sustainability
- Stressors and changes impacting quality and quantity of water resources and timing and amounts of precipitation
- Water use
- Water rights
- Riparian management
- Road and trail conditions impacting water quality
- Impacts downstream and outside of National Forest System lands
- Vegetation management
- Anticipation of water shortages
- Conflicts with State water management
- Wildfire effects and associated erosion
- Fisheries
- Water quality and quantity
- Maintenance of water-retention structures
- Dams and diversions, irrigation
- Recreation uses
- Priority watershed selection
- Municipal watershed management

For More Information

Furniss, M.J.; Staab, B.P.; Hazelhurst, S., and others. 2010. Water, climate change, and forests: watershed stewardship for a changing climate. Gen. Tech. Rep. PNW-GTR-812. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 75 p. http://www.fs.fed.us/pnw/pubs/pnw_gtr812.pdf

U.S. Department of Agriculture, Forest Service. 2000. Water and the Forest Service. FS-660. January 2000. http://www.stream.fs.fed.us/publications/PDFs/water_and_FS.pdf

Home

16 Wild and Scenic Rivers

Overview

The Wild and Scenic Rivers Act of 1968 (P.L. 90-542) aims to preserve those of our Nation's rivers with outstanding natural, cultural, and recreational values in a free-flowing condition. Congress can designate a river as "wild," "scenic," or "recreational" under the Wild and Scenic Rivers Act, and the Forest Service must ensure that the free-flow, water quality and "outstandingly remarkable values" of the designated river are protected and enhanced. During the planning process, the Forest Service must conduct an up-to-date inventory of other rivers that may be suitable and eligible for official protection by Congress.

Why It Matters

Healthy rivers and streams on the National Forest System provide millions of Americans with clean drinking water, world-class recreation, and economic benefits. They also support a wide range of native aquatic species. The National Wild and Scenic Rivers System safeguards and showcases some of America's most spectacular waterways.

Process

During the plan revision process, the Forest Service will conduct an inventory of rivers and streams on National Forest System lands to determine which are eligible for wild and scenic designation. If a systematic inventory has been previously completed and documented, then inventory work can be limited to evaluation of rivers with changed circumstances or that have never been evaluated. To be eligible, a river or stream reach must be free-flowing, and have at least one river-related value that has unique, rare, or exemplary significance at a regional or national scale. These specific values, known as "outstandingly remarkable values," may fall into recreational, biological, geological, historical, cultural, scenic, or other similar categories. Each eligible river is assigned a preliminary classification of "wild," "scenic," or "recreational," depending on the level of development in the river corridor at the time of study.

Healthy Forest Service rivers and streams provide millions of Americans with clean drinking water, world-class recreation, and economic benefits and support a wide array of native aquatic species.

Wild and Scenic Rivers Process

1 Identify Study Rivers

- Engage the public
- Include all named rivers on U.S. Geological Survey 7.5-minute quadrangle map

2 Evaluate Eligibility for Designation

- Identify which rivers meet Wild and Scenic Rivers Act criteria: Are free-flowing and have outstandingly remarkable values
- Provide opportunity for public participation

3 Classify

- Wild, scenic, and/or recreational

4 Evaluate Suitability

- Is designation as a wild and scenic river appropriate?
  - – Are there other competing uses?
  - – Will designation protect the river? Is it the best protection?
  - – Will river be protected where it flows out of national forest?

A suitability study may also be completed during plan revision to determine which eligible rivers or river segments should be recommended to Congress as potential additions to the National System. Suitability studies may also be conducted outside of the plan revision process.

Interim protection measures must be applied to rivers and their half-mile-wide corridors that are eligible or suitable for congressional designation. Eligible or suitable rivers may be managed under one or more land management categories depending, in part, on whether their preliminary classifications are eligible for wild, scenic, or recreational designation. Plan components must protect the values that make rivers and streams eligible for being designated in the future by Congress and should not limit uses that do not substantially interfere with those values.

Within three years of congressional designation of a river, the Forest Service must produce a comprehensive river management plan. This plan must be consistent with the land management plan and should describe the river corridor and how the Forest Service will protect its free-flowing status, water quality, and the other values that led to its designation. River management plans must be updated regularly and may be updated during the revision process.

Possible Key Topics

- Designated river management planning during forest planning
- River evaluations for eligibility
- Whether to complete river suitability studies during plan revision
- Recreation management and adjacent landowners
- Accessibility to rivers
- Traditional cultural properties around rivers
- Thoroughness of river inventory

For More Information

Interagency Wild and Scenic Rivers Coordinating Council's Web site: http://www.rivers.gov

17 Wilderness

Overview

During the plan revision process, the Forest Service must identify lands that may be suitable for inclusion in the National Wilderness Preservation System and determine whether to recommend any areas for wilderness designation. Only Congress can designate areas as wilderness under the Wilderness Act of 1964 (P.L. 88-577); however, the Forest Service planning process plays an important role in which lands are considered. There are several opportunities to participate in the wilderness evaluation and decision making process during forest plan revision.

Why It Matters

Wilderness areas are Federal lands that Congress specially designates to preserve their natural, undeveloped character. In 1964, Congress passed the Wilderness Act; this was followed by the Eastern Wilderness Act in 1975 (P.L. 93-622) and many other congressional acts designating additions to the National Wilderness Protection System. As of March 2016, there are 445 wilderness areas in the National Forest System. New wilderness areas require acts of Congress to be designated.

Wilderness areas are important for many reasons. They often provide scenic landscapes, high- quality water, and important habitat for many wide ranging wildlife species such as elk and bear. For those who like to "get away from it all," wilderness areas can be great places to go hiking, backpacking, and hunting.

When an area is designated "wilderness" by Congress, some kinds of recreation and management are not allowed unless Congress approves the activity in the statute that designates the specific area as wilderness. For example, use of motorized vehicles and bicycles is prohibited in wilderness areas. Mining (subject to valid existing rights), logging, and road building are also not permitted.

So, there are choices and trade-offs involved in deciding what areas, if any, the plan should recommend for congressional designation. The best decisions will be made with input from all people who care about their national forests—both wilderness and nonwilderness.

During a forest plan revision, **the Forest Service considers whether to recommend to Congress certain areas for wilderness designation.**

Wilderness Process

1 Inventory

- Engage the public
- Develop inventory of lands that should be evaluated for wilderness characteristics
- Conclude with a map of lands included in wilderness inventory and documentation of how the inventory was developed

2 Evaluation

- Evaluate all lands in the wilderness inventory for wilderness characteristics
- Provide opportunities for public participation during evaluation
- Conclude with a report, including maps, that describes the wilderness character of each area from the inventory

3 Analysis

- Identify lands that, based on evaluation process, are carried forward into one or more alternative plans. For lands not carried forward, document reason for excluding from continued analysis
- Create wilderness element for plan alternatives that will be considered during development and review of the draft environmental impact statement (DEIS)
- Document process in DEIS appendixes
- Provide opportunity for public participation as part of 90-day comment period

4 Recommendation

- Finalize wilderness recommendation in Record of Decision after objection process
- Continue public participation through the objection process

Process

During the assessment, the Forest Service will gather information about existing wilderness areas and opportunities and the need for additional wilderness. It may also begin to inventory lands that may be suitable for wilderness designation, though it is possible for the inventory to start later, even after the assessment phase. The Forest Service will provide opportunities for public involvement during each step of the process.

Step 1—Inventory

The wilderness inventory starts with existing information, such as roadless area locations and road conditions. Areas that can be included in the inventory typically:

- Are at least 5,000 acres,
- Do not have roads that are open for motor vehicles, and
- Do not have other “substantially noticeable” human impacts on the land.

Being included in the wilderness inventory does not mean that an area will necessarily be managed in any special way. It just means that the area’s wilderness qualities will be examined further in the planning process to determine whether the area will be considered for wilderness recommendation in the revised forest plan.

Step 2—Evaluation

Next, planners evaluate the wilderness character of each inventoried area. For example, does the area meet the description of wilderness found in the Wilderness Act? Does it offer outstanding opportunities for solitude or places where people can enjoy primitive, unconfined types of recreation?

Step 3—Comment and Decision

After the evaluation, the Forest Service will present its findings, preliminary wilderness recommendations (if any) and analysis of those recommendations in a draft plan and environmental impact statement for public review and comment. The public will have at least 90 days to comment on the Forest Service’s proposal before it is finalized.

Step 4—Recommendation

If the forest plan recommends an area for wilderness, the area will be managed to protect its wilderness characteristics that made it suitable for wilderness designation. For areas that are not recommended for wilderness designation, the plan is not limited regarding how those lands can be managed and can provide other types of special designations such as backcountry recreation or scenic areas.

Possible Key Topics

- Review of existing wilderness areas and the opportunity and need for additional wilderness designations
- Determination of whether the inventory is reasonably thorough and inclusive
- Consideration of when areas with roads are included in the inventory
- Determination of whether certain impacts on the land are “substantially noticeable”
- Limitations on uses and management of an area recommended for wilderness designation to protect its wilderness characteristics
- Consideration of public concerns about allowing, restricting, or prohibiting uses like motorized recreation in areas that may be recommended for wilderness
- Consideration of other types of designations (besides wilderness)
- Management of recreational opportunities
- Consideration of fire suppression strategies and tactics in wilderness

For More Information

General information about wilderness: http://www.wilderness.net