



FSH 1909.12 - LAND MANAGEMENT PLANNING HANDBOOK

CHAPTER 10 - LAND MANAGEMENT PLAN

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Associate Deputy Chief

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New Document	1909.12_10	27 Pages
Superseded Document(s) by Issuance Number and Effective Date	!1909.12,1 Contents (Amendment 1909.12-92-1, 08/03/1992)	1 Page
	1909.12,1 (Amendment 1909.12-92-1, 08/03/1992)	4 Pages
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Digest:

Notice of issuance of this directive was published in the Federal Register on January 31, 2006 (71 FR 5124).

Recodes chapter (parent text) from a 1-digit chapter to a 2-digit chapter. Interim directive (ID) 1909.12-2005-2 was issued using the 2-digit coding scheme.

1.01 - Removes direction on authority.

1.1 - Removes obsolete direction on guiding principles.

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Digest--Continued:

1.2-1.22 - Removes obsolete direction on the work plan (formerly in parent text).

1.3 - Removes obsolete direction on interdisciplinary team selection records (formerly in parent text).

1.4 - Removes obsolete direction on public participation records (formerly in parent text).

1.5-1.52b - Removes obsolete direction on documentation of coordination activities (formerly in parent text).

1.6 - Removes obsolete direction on filing and retention of planning records (formerly in parent text).

10 - Provides new direction for developing and monitoring land management plans including the objectives of Forest Service land management plans. The direction on plan records has been removed from the handbook (formerly in parent text sections 1.3 - 1.6).

10.3 - Removes direction on policy (formerly issued in ID).

11 - 11.4 - Revises caption used in ID from “Multilevel Planning” to “Plan Components and Proposed and Possible Actions.” and provides direction on how to write plan components (sec. 11.1) of desired conditions (sec. 11.11), objectives(sec. 11.12), guidelines(sec. 11.13), identification of areas suitable for various land uses(sec. 11.14), and special area designations (sec. 11.15). Adds guidance on proposed and possible actions (sec. 11.2) and for special conditions or situations (sec. 11.3). Adds Exhibit 01, Plan Consistency Boilerplate, that contains boilerplate wording for plan consistency (sec. 11.4).

12 - 12.3 - Removes obsolete direction on model of a land management plan (formerly issued in ID). Revises caption used in ID from “Model of a Land Management Plan” to “Monitoring” (sec. 12) and provides direction on the role of monitoring in land management plans (formerly issued in ID at section 13).

13 - Revises caption used in ID from “Monitoring” to “Consideration of Individual Resources.” Adds new guidance on how Responsible Officials consider individual resources in the planning process in three phases: (1) initial evaluation to determine the need for change; (2) evaluation of changes in plan components; and (3) integration of individual resources into plan components (formerly issued in ID at section 14).

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Digest--Continued:

13.1 - Revises caption used in ID from “Description of Monitoring Program” to “Resource Considerations.” Adds guidance for resource consideration for air; fire, aviation, and fuels management; heritage resources; land use and special uses; minerals; paleontological resources; range; recreation and scenery; road, facility, access, and travel management; and water (formerly issued in ID at section 14.1).

13.11 - 13-12 - Removes obsolete direction on monitoring questions and performance measures (formerly issued in ID).

13.2 - Revises caption used in ID from “Implementing Monitoring Program” to “Individual Resource Analytical Tools.” Provides guidance on use of analytical tools that may be used to consider recreational settings and opportunities issues, road management issues, and scenery issues (formerly issued in ID at section 14.2).

14 - 14.23g - Removes obsolete direction on resource integration (formerly issued in ID).

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10.2 - Objectives

The land management plan includes plan components, proposed and possible actions, the monitoring program, and maps. The objectives of land management plans are:

1. To describe the desired conditions of National Forest System (NFS) lands and resources.
2. To identify the strategies to maintain or achieve those conditions.
3. To identify land areas as generally suitable or unsuitable for various uses.
4. To identify the guidelines for projects and activities.
5. To identify areas with special or unique characteristics.

11 - PLAN COMPONENTS AND PROPOSED AND POSSIBLE ACTIONS

See Title 36, Code of Federal Regulations, section 219.3 (36 CFR 219.3) for guidance on the nature of planning and land management plans. The Responsible Official is responsible for adapting the plan to respond to changing situations and for developing budgets and projects that implement the plan's components (FSM 1904.1, FSM 1921.04b).

The recommended layout for plan components and a monitoring program is illustrated by the plan model, described in the technical guide "Foundations of Forest Planning" available on the Technical Information for Planning Site (TIPS) website at <http://www.fs.fed.us/TIPS>.

11.1 - Plan Components

The plan components (36 CFR 219.7) that guide activities and uses of National Forest System (NFS) resources are:

1. Desired conditions (sec. 11.1),
2. Objectives (sec. 11.12),
3. Guidelines (sec. 11.13),
4. Suitability of Areas (sec. 11.14), and
5. Special Areas (sec. 11.15).

Plans should not include wording that merely repeats existing direction from directives, laws, or regulations as plan components. See Exhibit 01, Sample Plan Components, for an example of how desired conditions, objectives, and guidelines may be described.

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Plan components may be developed to apply to either the entire administrative unit or areas within the unit. Typically, these kinds of areas within forests, grasslands, prairies, or other comparable administrative units are called management areas or geographic areas. Geographical and management areas should be described or displayed (maps) and linked to plan components that apply to them.

For more information and examples of plan components, see the technical guide “Developing Plan Components with Examples” available on the Technical Information for Planning Site (TIPS) website at <http://www.fs.fed.us/TIPS>.

A plan must include provisions required by applicable statutes and those specified by the National Forest Management Act (NFMA) (16 U.S.C. 1604(f)(2), 16 U.S.C 1604(g)(3), 16 U.S.C. 1604(m), 16 U.S.C. 1611). See FSM 1921.12 and chapter 60 of this handbook for further guidance.

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11.1 - Exhibit 01

Sample Plan Components

Desired Condition:

Watersheds in this management area (see Appendix Maps) are dominated by oak-grasslands. On upper slopes and ridges across this area, grasslands (less than 10 percent tree canopy closure) and open oak woodlands (10-60 percent tree canopy closure) are interspersed in variable mixtures. In general, tree density increases as one moves down slope, but densities are variable and transitions gradual. Snag and den tree density average three stems per acre on a watershed basis. Understories are dominated by native grasses and forbs. Most mid and lower slopes have open oak forests (60-80 percent tree canopy closure), with understories containing oak regeneration in sufficient numbers to provide for sustaining oak on these sites over time. Multi-layered mixed hardwood mesophytic and riparian forests occur on lower slopes, where, because of topography and moisture, understory fires burn at low intensities or not at all. Within riparian corridors, vegetative filter strips have 80 percent total ground cover comprised of grasses, or forbs. In riparian areas, flooding is the primary disturbance factor.

In upland portions of this management area, diverse grass and grass-forb understories provide diverse and abundant herbage, seeds, and insects. Open canopies and the use of periodic fire create this understory condition. This understory condition also supports a diverse assemblage of wildlife. Rare species that are adapted to open forests and grasslands, but have declined due to land-use changes and the alteration of these habitats, are present and distributed in numbers that will provide for self-sustaining populations. These include Henslow's sparrow, whip-poor-will, southern prairie aster, barbed rattlesnake-root, buffalo clover, and prairie parsley. Small mammals, such as deer mice (*Peromyscus* species.), voles, and rabbits are abundant, supporting increased populations of predators, such as raptors, foxes, and bobcats.

This management area is characterized by generally natural environments and users have the opportunity to experience a moderate degree of independence, closeness to nature, solitude, and remoteness, with some areas generally suitable for motorized opportunities and others for non-motorized opportunities. Satisfactory recreational experience is provided for at least 80 percent of forest visitors annually, as determined from comment forms that show ratings of "acceptable" or higher. This area contributes to economic sustainability by providing special interest areas for birders, who frequently use quality outfitter guides for birding tours.

Objectives:

- X snags will be created within Y years.
- Create XXX acres of Henslow's sparrow habitat within 10 years.
- At least X high-impact dispersed camping areas will be rehabilitated within X years.

Guidelines:

- On sustained slopes greater than 35 percent, heavy equipment should not be used for mechanical site preparation treatments.
- Artificial regeneration should use native plant material in restoration activities as defined in X guidance.
- Mechanical equipment should not be used within 20 feet of riparian buffers¹ for restoration activities.
- Rare or unique communities should be buffered from detrimental effects associated with management activities and recreational use.

¹ Riparian buffers along perennial streams should be 100 feet or more, measured from bankfull stage. Riparian buffers along intermittent streams should be 50 to 75 feet or more measured from bankfull stage.

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11.11 - Desired Conditions

1. Desired conditions (36 CFR 219.7(a)(2)(i)) are the plan component that describes the ecological, economic, and social attributes that characterize the desired outcome of land management.

2. Desired conditions should be integrated to consider the needs of all relevant resources, ongoing activities, and natural processes. Desired conditions developed or expressed by adjacent agencies, landowners, or communities should be considered when establishing desired conditions for the plan area.

3. Desired conditions may only be achievable in the long term. If desired conditions cannot be achieved or are no longer valid or relevant to the long-term multiple-use management of the plan, the plan should be amended or revised.

4. Desired conditions may be the same as existing conditions.

11.12 - Objectives

Plan objectives (36 CFR 219.7((a)(2)(ii)) should:

1. Describe the focus of unit management during the next 15 years.
2. Set priorities, with an expectation that high priority work would be completed first, depending on funding.
3. Be limited to priorities that can be reasonably accomplished during an identified time.
4. Be based on achieving and monitoring progress toward desired conditions.
5. Be based on budgets and other assumptions that are realistic expectations for the next 15 years.

Failure to achieve objectives by the time specified in the plan does not require a plan amendment or revision. If the objective is no longer appropriate or relevant to achievement of desired conditions, the Responsible Official may determine if a plan amendment or revision is necessary.

11.13 - Guidelines

Guidelines (36 CFR 219.7(a)(2)(iii)) provide guidance and information for carrying out projects and activities to help achieve the objectives and desired conditions. Guidelines do not force action; rather, they only apply when an action is being taken. They should be based on matters within the agency's control.

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Guidelines may refer to technical and scientific specifications for use in the design of projects and activities. Relevant provisions from the directive system and other sources, such as Best Management Practices, should be referenced rather than repeated.

The wording of guidelines and their organization in a plan should clearly describe the circumstances and manner in which the guidelines apply. Do not write guidelines in the imperative mood. Guidelines should not use the helping verbs “do not,” “may not,” “may only,” “must,” “not allowed,” “prohibit,” or “shall.” These helping verbs convey a degree of compliance or restriction that is not appropriate for guidelines. The helping verb “should” or “ought” is recommended for guidelines to recognize that there may be specific circumstances where adjustment of a guideline will be the best course of action for achieving desired conditions and objectives. See FSM 1110.8 for further direction.

Guidelines should be written with inherent latitude and flexibility to carry out projects and activities; so that adjustment is seldom an issue. However, a Responsible Official may adjust guidelines when it is necessary to address effectively specific circumstances. In such a case, the Responsible Official should:

1. Document a clear rationale for adjusting the guidelines in both the project analysis and decision documents.
2. Recognize the purposes for which the guideline was developed and provide assurance that the project or activity will still achieve those purposes.

11.14 - Suitability of Areas

Plans identify areas of each National Forest System (NFS) unit as generally suitable for various uses (36 CFR 219.7(a)(2)(iv) and 36 CFR 219.12). See chapter 60 of this handbook for identification of lands not suitable for timber production.

NFS lands are generally suitable for a variety of uses such as outdoor recreation, viewing scenery, livestock grazing, timber production, fisheries and wildlife, cultural and heritage resource interpretation, and watershed purposes. Identification of areas generally suitable for various land uses involves social, economic, and ecological considerations. Suitability of areas must be consistent with the desired conditions.

The 2005 planning rule uses “generally suitable” because identification of suitability is guidance and must be approved through project and activity decision making. See section 11.14 for direction on the project or activity suitability consistency with a land management plan.

The Responsible Official shall not identify lands within the plan area as suitable for a certain use or uses if any of the following circumstances apply:

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1. Law, regulation, Executive order, or Forest Service directives system prohibit that use,
2. The use would result in substantial and permanent impairment of the productivity of the land or renewable resources, or
3. The use is incompatible with the desired conditions for the relevant portion of the plan area.

11.15 - Special Areas

Special areas are places within the NFS identified or designated because of their unique or special characteristics (36 CFR 219.7(a)(2)(v)). Land management plans may identify areas as special for various reasons without a formal designation. In addition, land management plans should include special areas designated by statute or through a separate administrative process.

1. The Responsible Official may recommend the designation or removal of those special areas that require a Congressional or higher level administrative decision; or
2. The Responsible Official may identify, designate, or remove special areas that fall within the Responsible Official's authority through approval of a land management plan, plan amendment, or plan revision.

For evaluation of areas for potential wilderness recommendations, see FSM 1923 and chapter 70 of this handbook. For evaluation of rivers for potential wild and scenic river recommendations, see FSM 1924 and chapter 80 of this handbook. A land management plan may establish guidance for other types of areas. Exhibit 01 is a cross-reference listing of some areas that may be considered, the designating official, and the location of further guidance. The listings of special areas in exhibit 01 are examples; Responsible Officials may make other types of designations.

Washington Office notice is required, if the plan development, plan amendment, or plan revision makes preliminary recommendations that ultimately will require Congressional action. The Responsible Official, through the Regional Forester, shall notify the Chief by letter of tentative preliminary administrative recommendations. Examples of preliminary recommendations for Congressional action include additions to or deletions from the National Wilderness Preservation System, National Trails, National Recreation Areas; studies or changes to the National Wild and Scenic River System; and proposed adjustments in national forest, grassland, prairie, or other comparable administrative unit's boundaries.

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11.15 - Exhibit 01

Special Areas - Designating Official and Guidance Cross-reference

Special Areas	Designation Authority	Additional Guidance Location
Statutorily Designated Areas		
National Monument	Responsible Official recommends Presidential Executive order or Congressional act designates	FSM 2371
National Recreation Area	Responsible Official recommends Congressional act designates	FSM 2371
National Scenic Area	Responsible Official recommends Congressional act designates	FSM 2371
National Trails National Scenic Trails National Historic Trails	Responsible Official recommends Congressional act designates	FSM 2353.4
Wild and Scenic River	Responsible Official recommends Congressional act designates	FSM 1924 & 2354 FSH 1909.12
Wilderness, or Wilderness Study Areas	Responsible Official recommends Congressional act designates	FSM 1923 & 2320 FSH 2409.19
Highway Systems, Interstate and National	Congressional act established process Secretary of the Department of Transportation approves	23 CFR part 470
Responsible Official Designated Areas		
Botanical Area	Responsible Official Designates	FSM 2372
Geological Area	Responsible Official Designates	FSM 2372
Administratively Designated Areas		
Experimental Forest or Range	Responsible Official recommends with concurrence of Station Director Chief designates	FSM 4062
National Natural Landmark National Historic Landmark	Responsible Official recommends Secretary of Interior designates	FSM 2373 FSM 2363.1
Recreation Areas	Responsible Official recommends Secretary of Agriculture designates	36 CFR 294.1 FSM 2360
Research Natural Area	Responsible Official recommends Regional Forester designates, with concurrence of Station Directors	FSM 4063
Scenic Byway - Forest Service	Responsible Official recommends Chief designates	None
Scenic Byway - National	Responsible Official recommends Federal Highway Administration designates	None
Significant Caves National Recreation Trails	Responsible Official recommends Regional Forester designates	36 CFR part 290 FSM 2353.4

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11.2 - Proposed and Possible Actions

The proposed and possible actions listed in the land management plan (16 U.S.C. 1604(f)(2)) should include those actions anticipated to provide the array of multiple-use opportunities or resource management programs that a forest, grassland, prairie, or other comparable administrative unit expects to provide. The proposed and possible actions may be displayed in an appendix. A plan amendment is not required to change the proposed and possible actions. The proposed and possible actions listed must include the planned timber sale program including the proportion of probable harvest methods. (See chapter 60 of this handbook for further detail on the timber management requirements.)

Proposed and possible actions may be presented in a brief summary of the types of projects that may occur in the plan decade to maintain or move toward the desired conditions. This summary may include a discussion of the resource program areas (recreation, timber, fire and fuels, wilderness, rangeland management, and so on) that constitute the typical annual program of work for the unit. Proposed and possible actions should not speculate about the specific amount, quantities, frequency, or magnitude of actions during the plan decade.

11.3 - Plan Guidance for Special Conditions or Situations

The Responsible Official must provide plan components for special conditions or situations that involve hazards to the various resources (FSM 1921.12; 6 U.S.C. 1604(g)(2)(C)).

To assure that plans provide for special conditions or situations involving hazards to the various resources, plan components should be developed:

1. Using an interdisciplinary approach to coordinate multiple uses and identify hazards and relationships to activities.
2. Recognizing where ecological conditions are fragile or subject to major ecological disturbances.
3. Providing for ecological sustainability.
4. Using appropriate vegetation management systems.
5. Using monitoring and evaluation to discontinue systems that impair land productivity.

11.4 - Plan Component Consistency During Implementation

To carry out the plan consistency policy in an effective matter, it is recommended that the text in Exhibit 01, Plan Consistency Boilerplate, be used to introduce the plan component package in revised forest plans.

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11.4 - Exhibit 01

Plan Consistency Boilerplate

During plan implementation, projects and activities will be consistent with the land management plan (36 CFR 219.8(b)). Consistency with the plan is achieved in the following ways:

Desired conditions and objectives (36 CFR 219.7(a)(2)(i) and (ii)) - Most projects and activities are developed specifically to achieve or maintain one or more of the desired conditions and objectives of the plan. It should not be expected that each project or activity will contribute to all desired conditions or objectives in every instance, but only to a selected subset. Furthermore, some projects and activities may not be clearly related to a specific social, economic, or ecological desired condition or objective of the plan (for example, powerline right-of-way to a private inholding may be proposed without a corresponding desired condition or objective for that proposal), so it also should not be expected that in every instance, a project can clearly point to a specific desired condition as the reason the project was proposed.

To be consistent with the plan, a project or activity can:

- Maintain or achieve one or more desired conditions or objectives,
- Be neutral to relevant desired conditions or objectives, or
- Have negative short-term effects, but beneficial long-term effects to one or more desired conditions or objectives.

To the extent practicable, documentation for projects and activities will identify which desired conditions and objectives are being addressed and whether these conditions and objectives are being advanced, not affected, or temporarily slowed. Project documentation is not required to speak to all the available opportunities to meet or work toward desired conditions in a project area, but will instead focus on the specific social, economic, or ecological conditions that prompted the need for the proposal.

Guidelines (36 CFR 219.7(a)(2)(iii)) - To be consistent with guidelines, a project or activity will apply relevant guidelines, unless there is a documented reason to adjust the guideline for a specific project or activity. If an adjustment would be neutral with regard to the relevant social, economic, or ecological condition or would be a more effective way to achieve or maintain desired conditions and objectives, the Responsible Official will describe the proposed adjustment and explain the relationship to desired conditions and objectives in the project-level environmental analysis and decision documents. In such cases, a land management plan amendment generally is not required.

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11.4 - Exhibit 01--Continued

Plan Consistency Boilerplate

Suitability of areas (36 CFR 219.7(a)(2)(iv)) - The plan identifies areas that are generally suitable for a variety of multiple uses (36 CFR 219.12(a)). These identifications show where these uses are compatible or incompatible with the area's desired conditions. The actual suitability for a particular use, even if an area is identified as generally suitable for a use, will not be determined until a project or activity is authorized. Moreover, it is not possible to anticipate every project or activity that could be proposed throughout the unit and throughout the life of a plan. An approved project or activity is considered to be consistent with the plan if the project or activity is consistent with the general suitability identification and is consistent with other relevant plan components. If the project or activity is not consistent with this identification, the Responsible Official should amend the plan.

Special area guidance (36 CFR 219.7(a)(2)(v)) - Special areas may have different management direction that represents their unique or special characteristics. For example, a botanical area may have desired conditions that differ from the larger landscape surrounding that special area. Project consistency for a special area would be determined in the same manner as consistency with other desired conditions, suitability identifications, and guidelines as described previously, but specific to that area.

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12 - MONITORING

The plan must describe a monitoring program for the plan area (36 CFR 219.6(b)) that establishes monitoring questions and associated performance measures. Monitoring questions must link to one or more desired condition, objective, or guideline. Not every desired condition, objective, and guideline must be associated with a monitoring question. When developing the monitoring program, the Responsible Official shall:

1. Use an interdisciplinary approach and involve the public (36 CFR 219.9(a)).
2. Consider multi-agency approaches.
3. Design the monitoring program to form the basis for continual improvement (adaptive management).
4. Focus on key plan components where plan implementation is likely to cause a change over time.
5. Address the minimum timber management requirements of the National Forest Management Act, for example, restocking, cut block size and shape, and watershed protection.

Exhibit 01, Example of Monitoring Program for the Plan, identifies a sample subset of a possible unit-monitoring program that includes monitoring questions, the linkage to plan components, and the performance measures associated with each question.

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12 - Exhibit 01

Example of Monitoring Program for the Plan

<u>Monitoring Question</u>	<u>Linkage to Plan Components</u>	<u>Performance Measures</u>
<p>Are best management practices (BMPs) effective in protecting the most sensitive of the state-designated beneficial uses of water, namely that of native brook trout streams?</p>	<p>Desired Condition: Water quality meets or exceeds state standards for aquatic biodiversity and beneficial downstream uses.</p> <p>Guideline: In any project water quality is protected from nonpoint-source pollution through use of operational controls that meet or exceed preventive BMPs.</p>	<p>Macroinvertebrate Aggregated Index for Streams (MAIS) score for benthic macroinvertebrates.</p>
<p>Are plant communities of concern being protected, maintained, and restored?</p>	<p>Desired Condition: Communities of concern exhibit the composition, structure, and function necessary to support vigorous populations of species characteristic of the specific community, including relevant federally listed threatened and endangered species, and other species of concern.</p>	<p>Areal extent of plant community of concern.</p> <p>Fragmentation characteristics such as patch size, edge, and proportion of forest interior.</p> <p>Status of disturbance processes that shape the community.</p>
<p>Is information on forest recreation opportunities, rules and regulations, and user etiquette readily available and used by forest visitors?</p>	<p>Desired Condition Forest visitors are well informed about recreation opportunities and responsibilities, including; which activities are allowed where, and how to be light-on-the-land.</p>	<p>Change in percentage of contacts that result in providing visitors with information on opportunities and responsibilities.</p>

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12.1 - Monitoring Questions

1. Progress towards the Desired Conditions. Monitoring questions should address whether management within the plan area maintains or makes progress toward the desired conditions and they should:

- a. Address key aspects of desired conditions.
- b. Address desired conditions directly or indirectly by focusing on objectives or guidelines.
- c. Link to at least one specific plan component and to more than one whenever possible.

2. Screening Process. Responsible Officials should use a screening process to evaluate potential monitoring questions so that the selected questions will provide the most useful information while also being practical and affordable. The screening process may include, but is not limited to the following questions:

- a. Is there a high degree of disparity between the existing and desired conditions? If the existing condition is near to or the same as the desired condition, monitoring resources may be best used elsewhere. It may be more valuable to monitor in situations where the difference between existing and desired condition is distinct.
- b. Are management activities likely to affect the desired condition? It may be most valuable to monitor situations where implementing the plan objectives is expected to have a meaningful effect on achieving the desired condition.
- c. Does the question respond to a key desired condition? In most cases, key desired conditions are those closely associated with the need for change that was identified through the planning process. There may be more value in monitoring these than other desired conditions.
- d. Is there a high degree of uncertainty associated with management assumptions? If there is not general agreement that implementing the plan will support certain desired conditions, it may be valuable to monitor these aspects of the plan.
- e. Can the question be answered cost effectively? If the cost of answering the question is especially high due to information needs or if an adequate performance measure cannot be identified, perhaps the question is not appropriate for the plan-monitoring program.

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12.2 - Performance Measures

Responsible Officials should use performance measures to help answer the monitoring questions. Performance measures are a basis for accountability, both for near-term objectives and long-term desired conditions. The plan's monitoring program should include one or more performance measures associated with each monitoring question. The Responsible Official should document the reason for selection of these performance standards in the plan set of documents.

Measures should be based on data stored in Forest Service corporate data systems such as the Natural Resource Information System (NRIS) and should contribute to reporting progress toward National Strategic Plan goals and objectives.

Consider coordinating the selection of performance measures with communities, non-governmental organizations, other agencies, Regional Foresters, Station Directors, states, tribes, universities, or other parties to facilitate evaluating progress in sustainable resource management across all landownerships.

12.3 - Documenting the Monitoring Program

The monitoring program is described in the plan. Several other documents are associated with the monitoring program:

1. Annual Evaluation Report. An annual evaluation report should:
 - a. Briefly summarize the monitoring activities conducted.
 - b. Evaluate those items monitored annually, or during that year.
 - c. Make recommendations of needed action (sec. 24).
2. Comprehensive Evaluation Report. A comprehensive evaluation report is prepared every 5 years and should build from the monitoring and evaluation documented in the annual evaluation reports (sec. 24).
3. Monitoring Guide. A monitoring guide identifies:
 - a. The specific methods for data collection.
 - b. How the data are stored.
 - c. Responsibilities for managing monitoring information.

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- d. Schedule of monitoring and evaluation activities during the planning period.
 - e. Identify cooperators and their specific roles with respect to particular monitoring items.
 - f. Include the environmental management system (EMS) monitoring procedure associated with the land management plan.
4. Annual Monitoring Work Plan. An annual monitoring work plan should be developed consistent with the monitoring guide. It should identify the work expected for the upcoming fiscal year and the anticipated resources for carrying out the monitoring program.

13 - CONSIDERATION OF INDIVIDUAL RESOURCES

Requirements for integrating designated wilderness into the land management planning process are found in FSM 1923 and chapter 70 of this handbook. Requirements for wild and scenic rivers are found in FSM 1924 and chapter 80. Requirements for timber management are found in FSM 1921.12 and chapter 60. Requirements for social, economic, and ecological sustainability are found in FSM 1921.7 and chapter 40. When pertinent to the issues, other resources are integrated into the planning process in three phases that may take place concurrently:

1. Initial evaluation to determine the need for change. This phase is the initial evaluation of the resource to determine if plan components that affect the resource need to change. Such evaluations are documented in annual evaluation reports and comprehensive evaluation reports (ch. 20).
2. Evaluation of changes in plan components. Resources (that are identified as having a need for change or would be substantially influenced by other needs for change including the proposed changes to plan components and options considered in those changes) are evaluated after public notification of initiation of plan revision or plan amendment. Include the results of these evaluations in the plan set of documents (ch. 20).
3. Integration into plan component. This phase begins after the need for change has been determined. The product of this phase is in the actual plan, plan amendment, or plan revision.

Unless indicated otherwise in regulation, the Responsible Official identifies and selects the appropriate parameters for the evaluation and integration of resources into the unit's plan set of documents based on relevant unit-specific issues. All evaluations are based on the treatment of new issues or new data since the last plan revision, including ecological, social, and economic conditions and best available science.

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13.1 - Resource Considerations

When pertinent to the issues involved in the planning process, in the initial evaluation phase, and, if necessary, in the evaluation of changes in plan components, the Responsible Official should consider:

1. The potential for reasonably foreseeable large-scale disturbances (such as fire, windstorms, floods, and insect or disease outbreaks) based on past historical trends in the plan area and how such disturbances may affect achievement of management objectives and desired conditions (sec. 43).
2. The proximity, status, and threat of nonnative invasive species infestations to the presence and distribution of rare plant and animal communities in identifying lands as generally suitable for grazing (36 CFR 222.1), off-highway vehicle use, and dispersed recreation use (such as equestrian) (sec. 43).
3. The current conditions and trends in the relationship between multiple-use desired conditions such as restoration, fuel reduction, recreation use, recreation settings, and scenic values.

13.11 - Physical Environment

13.11a - Paleontological Resources

When pertinent to the issues involved in the planning process, in evaluating whether to designate an area as a special area, consider the area's potential to be open to visits, collection, and interpretation by the public.

13.11b - Air

1. Airshed Scale. When pertinent to the issues involved in the planning process, in the initial evaluation phase, and, if necessary, in the evaluation of proposed plan changes, the Responsible Official should, at an airshed scale:
 - a. Acknowledge the location and extent of known sensitive air quality areas, such as Class I areas, non-attainment areas, and air quality maintenance areas.
 - b. Evaluate if air resources need additional plan components for visibility and other air quality related values protection or Clean Air Act compliance.
 - c. Consistent with FSM 2580, identify the options available to support the states' or tribes' Implementation Plan (SIP/TIP) for regional haze and non-attainment areas (especially the option of including Forest Service emission estimates in the appropriate SIP/TIP).

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2. Desired Characteristics. When developing plan components, plan components may contribute to maintaining or achieving desired characteristics of:

- a. Resources affected by air pollution, for example: flora, fauna, visibility, soils, water, and so forth.
- b. Air quality (as measured by pollutant concentration) as it affects public health and safety.
- c. High value air resources on National Forest System lands such as Class I areas where poor air quality or visibility would be likely to adversely affect visitor experience, public health, or dependent resources.

In other parts of the plan set of documents, identify current inventories of airshed conditions using existing information including that from states, tribes, and Regional Planning Organizations (RPO).

13.11c - Water

1. Watershed Scale. When pertinent to the issues involved in the planning process, in the initial evaluation phase, and, if necessary, in the evaluation of proposed plan changes, the Responsible Official should at a 3rd or 4th field watershed scale:

- a. Acknowledge the location and extent of known groundwater resources.
- b. Evaluate if water resources with water quantity and timing issues need additional plan components for aquatic ecosystem diversity (sec. 43).
- c. Consistent with FSM 2540, where demand for forest water is high, identify the methodology used to identify the unit's nonconsumptive water needs, and the options available to support the state's water allocation process.

2. Desired Characteristics. When developing plan components, the plan components may contribute to maintaining or achieving desired characteristics of:

- a. Surface resources associated with groundwater resources.
- b. Water quality (FSM 1921.12 and FSM 1921.7).
- c. High value aquatic resources on National Forest System lands such as fens, bogs, seeps, aquifers, or wetlands where flow diversions or poor water quality would be likely to adversely affect dependent resources.

In other parts of the plan set of documents, identify current inventories of watershed restoration needs, including 303(d) and 305(b) listed waters in the "proposed and possible actions" (sec. 11).

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13.12 - Biological Environment

13.12a - Fire, Aviation, and Fuels Management

Land management plans should contain desired conditions that discuss public and firefighter safety related to fire management. Plans should also contain objectives for fire management activities and set public and firefighter safety as the highest priority during fire management activities.

1. Initial Phase. In the initial evaluation phase, and if necessary, in the evaluation of proposed plan changes, depending on issues and the relationship of wildland fire management to achieving desired conditions for ecosystem diversity, the Responsible Official may:

- a. Evaluate, as appropriate, changes in predicted fire behavior resulting from vegetation succession.
- b. Identify the potential for changes in trend of vegetation and the associated fire behavior.
- c. Based on the criteria described in paragraphs a and b, identify the fire's historic role as a context for plan components.
- d. The Responsible Official may use the information described in paragraphs a, b, and c to:
 - (1) Address current vegetation in view of natural disturbance processes.
 - (2) Assess the relative trends in fire suppression for protecting ecosystem diversity.

2. Plan Components. When pertinent to the issues involved in the planning process, the Responsible Official should consider including in plan components:

- a. Desired conditions and objectives for wildland fire behaviors and fuel conditions to be achieved at a landscape scale by fuels management activities. This includes considering the management strategies and estimated trends related to public and firefighter safety, urban interface, appropriate management response, smoke management, hazardous fuels treatments, and prevention and operational controls necessary to achieve the desired conditions and objectives. The objectives should display the number of acres expected to be treated in a specific time to move towards desired condition.

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b. A description of areas generally suitable for wildland fire use, prescribed fire treatments, non-fire fuels treatments, and post-fire rehabilitation actions considering social, economic, political, or resource constraints. For example, wildland fire use may not be appropriate at the Wildland Urban Interface (WUI) where prescribed fire treatments or non-fire fuels treatments may be more appropriate. Suitability may also pertain to the management response most appropriate to a wildfire in a given area.

c. Any needed guidelines on fire management practices including wildfire suppression and fuels management, used to protect resource values. Guidelines, however, need to allow for variability in seasons, years, resource conditions, weather factors, and operational capability. Examples of guidelines include:

(1) Ecological conditions where mechanized equipment should be excluded.

(2) Best management practices to protect sensitive sites. These practices may be incorporated by reference.

(3) Criteria for locating fire camp locations, staging areas, helibases, and airstrips to protect resource values.

(4) Criteria that will be used for setting fire management priorities. These priorities can be used during implementation for allocation of fire suppression resources in multiple-fire situations, identification of fuels management priorities, post-fire rehabilitation, fire prevention, and fire preparedness. Priorities should also tie to critical fire weather and fire danger thresholds for suppression, wildland fire use, and prescribed fire.

13.12b - Large Fire Cost Containment

Responsible Officials with management units where large fires have historically occurred or have the potential to occur resulting in costly fire suppression should consider wildland fire cost containment issues. When large fire cost containment is an issue, Responsible Officials should:

1. Consider Wildland Fire Situation Analyses (WFSA) and the Wildland Fire Implementation Plan (WFIP) when developing plan components.

2. Provide plan components that guide appropriate management responses to large fires.

13.12c - Wildlife and Fisheries

(FSM 1921.7; FSH 1909.12, sec. 43).

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13.13 - Social and Economic Environment

13.13a - Recreation and Scenery

When pertinent to the issues involved in the planning process, the Recreation Opportunity Spectrum (ROS) and the Scenery Management System (SMS) should be used to describe recreational desired conditions and objectives. Individual forests, grasslands, or prairies do not need to provide recreation opportunities in each ROS class or Scenic Integrity level.

In the initial evaluation phase, and, if necessary, in the evaluation of proposed plan changes, consider land use plans or other future vision-oriented efforts of states, other federal agencies, tribes, and counties.

When modifying plan components, use the following criteria to consider recreational resources:

1. Visitation to NFS lands to ensure that the levels of quality recreation and tourism experience for a region or specific geographic area are sustainable.
2. High quality recreational opportunities, such as hunting, fishing, skiing, hiking, and scenery viewing on national forests, grasslands, prairies, or other comparable units should be desired conditions in plans where these experiences contribute to the local economies of NFS land-dependent rural communities.
3. Relationship between potential wilderness values and other multiple uses, such as fuel reduction, recreation, wildlife, and vegetation, if determining management guidance for a potential wilderness.

13.13b - Heritage Resources

When pertinent to the issues involved in the planning process, in the initial evaluation phase, and, if necessary, in the evaluation of proposed plan changes, the Responsible Official should consider heritage resource information for crucial data and insights into the past that have a bearing on sustainability and management of NFS lands and resources. The Responsible Official is encouraged to coordinate heritage plan components with the State Historic Preservation Officer (SHPO).

Plans may identify desired conditions, objectives, or other plan components for heritage resources. When modifying plan components about or affecting heritage resources:

1. Set priorities to protect the Forest Service's most significant heritage sites.
2. Include protecting and interpreting heritage resources as desired conditions, if appropriate.

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3. Take into account the fundamental need to preserve the integrity and special qualities of the heritage resources and their settings (FSM 2360).

13.13d - Minerals

When evaluating energy and mineral resources, recognize that:

1. Exploration and development represents a relatively short-term use and, with proper design and reclamation practices, usually does not appreciably diminish long-term productivity of the lands or preclude attainment of long-term objectives for surface resources.
2. Energy and mineral development can be important to local economies and can contribute to national security. Therefore, some residual impacts may often be considered acceptable given the benefits obtained.
3. That valuable energy and mineral resources are relatively rare in nature and that large amounts of land may be needed if discoveries are to be made.
4. Exploration and development of land should be facilitated in responsible ways recognizing that there will be trade-offs between competing resources.
5. Opportunities to reduce, or negotiate reducing (if non-federal), the impacts caused by other activities that provide lesser economic benefit, if necessary, to allow energy and mineral exploration and development to occur.

13.13e - Range

When pertinent to the issues involved in the planning process, the Responsible Official should recognize wild horse-burro territory boundaries in plans. These boundaries typically overlap allotment boundaries and possibly other administrative boundaries.

13.13f - Road, Facility, Access, and Travel Management

In the initial evaluation phase, and, if necessary, in the evaluation of proposed plan changes, when developing, amending, or revising plan components that may aspire to restrict access to all or a portion of the plan area, recognize outstanding and reserved valid existing rights as well as other rights of access provided by statute or treaty.

When modifying plan components about or affecting roads, trails, facilities, access, or travel management:

1. Identify the specific access and travel management options available to meet plan objectives.

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2. Describe how access will be provided and how travel will be managed. Include the forest transportation system and air and water access.
3. Integrate considerations of biological, physical, social, and economic factors and environmental design criteria.
4. Link access and travel management to the full spectrum of desired conditions and objectives (36 CFR part 212, FSM 7710).

13.13g - Land Use and Special Uses

When pertinent to the issues involved in the planning process, the Responsible Official should:

1. Evaluate lands generally suitable for disposal or desirable to acquire, and consider how disposal or acquisition may affect the land use strategy or economy of the county in which lands are located. In evaluating lands desirable for acquisition, consider the distribution, range, and habitat of identified species-at-risk and species-of-concern, including critical habitat under the Endangered Species Act and location of significant historical or cultural resources.
2. If pertinent to the issues involved in the planning process:
 - a. Identify lands generally suitable for disposal or desirable to acquire in the appropriate plan components.
 - b. Provide for consideration of transportation and utility corridor designation and use. Coordinate activities between regions and with other federal and state agencies to designate location, alignment, and associated use and occupancy standards for rights-of-way.
3. Identify and incorporate energy right-of-way corridors on federal land into the plan in accord with the Energy Policy Act of 2005 (Pub. L. 109-58, sec. 368).
4. Provide guidance for geothermal leasing and development for areas with high geothermal resource potential in accord with Title 30, United States Code, section 4 as amended by the Energy Policy Act of 2005 (Pub. L. 109-58, sec. 222).

13.2 - Individual Resource Analytical Tools

If pertinent to the issues involved in the planning process, the following resource integration analytical tools identified are recommended to analyze resource tradeoffs during evaluations for a plan, plan amendment, or plan revision process.

1. Recreational Settings and Opportunities Issues. Recreation Opportunity Spectrum (ROS) system. This system is described in FSM 2311 and the 1986 ROS Book.

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2. Road Management Issues. If forest scale roads analysis needs updating, see the direction on transportation analysis in FSM 7712.

3. Scenery issues. Landscape Aesthetics - A Handbook for Scenery Management (Agricultural Handbook Number 701). Also, see FSM 2380.61 for landscape aesthetics guidance.