Biological Assessment

of the

United States Department of Agriculture
National Forest System Land Management Planning Rule

for

Federally Listed Endangered and Threatened Species
Species Proposed for Federal Listing
Species that are Candidates for Federal Listing

on

National Forest System Lands

Prepared by:

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In Partnership with:

U.S. Fish and Wildlife Service
and
National Marine Fisheries Service

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U.S. Fish and Wildlife Service
and
National Marine Fisheries Service

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Biological Assessment of Potential Effects of the USDA National Forest System Land Management Planning Rule to Federally Listed Endangered and Threatened Species, and Proposed and Candidate Species on National Forest System Lands

Description of the Action being Considered

INTRODUCTION

The USDA Forest Service is proposing a new planning rule at 36 CFR 219 that sets out requirements for development, revision, and amendment of land management plans for national forest and grassland units of the National Forest System (NFS). The final rule will replace the current planning rule for guiding land management planning pursuant to the National Forest Management Act (NFMA).

This Biological Assessment (BA) is the basis for the Department of Agriculture, Forest Service's Endangered Species Act (ESA) consultation with the Department of the Interior, Fish and Wildlife Service (FWS) and Department of Commerce, National Oceanic and Atmospheric Administration Fisheries Service (NOAA Fisheries) on the final NFMA Planning Rule with respect to its role in contributing to the Forest Service's obligation to carry out programs for listed species (section 7 (a)(1); 16 USC 1536 (a)(1))and its potential effects on threatened and endangered (T & E) species and critical habitat (section 7 (a)(2); 16 USC 1536 (a)(2)). Furthermore, while the ESA does not require conferencing on species proposed for listing or on species that are candidates for Federal listing, this BA also is the basis for voluntarily exercising the option to conference on proposed and candidate species occurring on NFS lands under ESA section 7(a)(1) and 7(a)(2). Although this action does not constitute a major Federal construction project, the three agencies agreed that a biological assessment would be the appropriate documentation for determining whether the proposed action is likely to affect an endangered, threatened, proposed, or candidate species.

CONSULTATION HISTORY RELEVANT TO THE FINAL PLANNING RULE

Beginning in September, 2010 and continuing through the development of the final planning rule and its accompanying final Programmatic Environmental Impact Statement (PEIS), representatives from the FWS and the NOAA Fisheries (the reviewing agencies) met regularly with members of the Forest Service to discuss ESA issues related to the final NFMA planning rule. During that time, the three agencies worked closely together to identify the relevant issues and appropriate level of analysis associated with this programmatic rule and the environmental analysis for it. They have collaborated on a consultation process and on this BA. The Agency requested consultation under Section 7(a)(1) and 7(a)(2) of the Endangered Species Act with the reviewing agencies in July, 2011. Additionally, the Agency requested conferencing on the potential effects of the rule on all species that are proposed for Federal listing and currently occur on NFS lands, and those that are candidates for Federal listing that occur on or are suspected to occur on NFS lands. A summary of the consultation meetings between the Forest Service, NOAA Fisheries, and the FWS can be found in Appendix E.

FINAL PLANNING RULE PROVISIONS MOST RELEVANT TO THIS BA

A draft final version of the planning rule, in its entirety, will accompany this BA. This ESA consultation will consider the entire final planning rule. The specifically selected provisions in the rule that follow are those requirements expected to be most relevant to this BA, in that they will influence the planning process and plan content with respect to federally listed species, species proposed for listing, and candidate species; the ecosystems upon which they depend; and furtherance of ESA goals.

§ 219. 2 Levels of planning and responsible officials (b) *National Forest System unit planning*.

(5) The Chief of the Forest Service is responsible for leadership and direction for carrying out the National Forest System land management planning program under this part. The Chief of the Forest Service shall:

(i) Establish planning procedures for this part in the Forest Service Directive System in Forest Service Manual 1920—Land Management Planning and in Forest Service Handbook 1909.12—Land Management Planning Handbook.

(ii) Establish and administer a national oversight process for accountability and consistency of NFS land management planning under this part.

§ 219.3 Role of science in planning

The responsible official shall use the best available scientific information to inform the planning process identified in this subpart.

§ 219.4 Requirements for public participation

(1) *Outreach*. The responsible official shall engage the public—including Tribes and Alaska Native Corporations, other Federal agencies, State and local governments, individuals, and public and private organizations or entities—early and throughout the planning process as required by this part, using collaborative processes where feasible and appropriate. In providing opportunities the responsible official shall encourage participation by:

(iv) Federal agencies, States, counties, and local governments, including State fish and wildlife agencies, State foresters and other relevant State agencies. Where appropriate, the responsible official shall encourage, States, counties, and other local governments to seek cooperating agency status in the NEPA process for development, amendment, or revision of a plan. The responsible official may participate in planning efforts of States, counties, local governments, and other Federal agencies, where practicable and appropriate.

(b) *Coordination with other public planning efforts*. (1) The responsible official shall coordinate land management planning with the equivalent and related planning efforts of federally recognized Indian Tribes, Alaska Native Corporations, other Federal agencies, and State and local governments.

§ 219.6 Assessment

(b) *Content of the assessment for plan development or revision*. In the assessment(s) for plan development or revision, the responsible official shall identify and evaluate existing information relevant to the plan area for the following:

(1) Terrestrial, aquatic ecosystems, and watersheds;

(2) Air, soil, and water resources and quality;

(3) System drivers, including dominant ecological processes, disturbance regimes, and stressors, such as natural succession, wildland fire, invasive species, and climate change; and the ability of those terrestrial and aquatic ecosystems on the plan area to adapt to change;

(5) Threatened, endangered, proposed, candidate species, and potential species of conservation concern present in the plan area;

§ 219.7 New plan development or plan revision

(c) *Process for plan development or revision.* (1) The process for developing or revising a plan includes: public notification and participation (§§ 219.4 and 219.16), assessment (§ 219.6), developing a proposed plan, considering the environmental effects of the proposal, providing an opportunity to comment on the proposed plan, providing an opportunity to object before the proposal is approved (subpart B), and, finally, approving the plan or plan revision. A new plan or plan revision requires preparation of an EIS.

(2) In developing a proposed new plan or proposed plan revision, the responsible official shall:

(i) Review relevant information from the assessment phase and the monitoring phase to identify a preliminary need to change the existing plan and to inform the development of plan components and other plan content;

(ii) Consider the goals and objectives of the Forest Service strategic plan (§ 219.2(a));

(iii) Identify the presence and consider the importance of various physical, biological, social, cultural, and historic resources on the plan area, with respect to the requirements for plan components of §§ 219.8 through 219.11;

(iv) (iv) Consider conditions, trends, and system drivers, with respect to the requirements for plan components of §§ 219.8 through 219.11.

(x) Identify questions and indicators for the plan monitoring program (§ 219.12); and

(3) The regional forester shall identify the species of conservation concern for the plan area in coordination with the responsible official.

(e) *Plan components.* Plan components guide future project and activity decisionmaking. The plan must indicate whether specific plan components apply to the entire plan area, to specific management areas or geographic areas, or to other areas as identified in the plan. Every project and activity must be consistent with the applicable plan components (§ 219.15).

§ 219.8 Sustainability

The plan must provide for social, economic, and ecological sustainability within Forest Service authority and consistent with the inherent capability of the plan area, as follows:

(a) *Ecological sustainability.*

(1) *Ecosystem Integrity.* The plan must include plan components, including standards or guidelines, to maintain or restore the ecological integrity of terrestrial and aquatic ecosystems and watersheds in the plan area, including plan components to maintain or restore structure, function, composition, and connectivity, taking into account:

(i) Interdependence of terrestrial and aquatic ecosystems in the plan area;

(ii) Contributions of the plan area to ecological conditions within the broader landscape influenced by the plan area;

(iii) Conditions in the broader landscape that may influence the sustainability of resources and ecosystems within the plan area;

(v) Wildland fire and opportunities to restore fire adapted ecosystems;

(v) Wildland fire and opportunities to restore fire adapted ecosystems; and

(vi) Opportunities for landscape scale restoration.

(2) *Air, soil, and water*. The plan must include plan components, including standards or guidelines, to maintain, protect, or restore:

(i) Air quality;

(ii) Soils and soil productivity, including guidance to reduce soil erosion and sedimentation;

(iii)Water quality,

(iv) 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);

(3) *Riparian areas*. (i) The plan must include plan components, including standards or guidelines, to maintain, protect, or restore the ecological integrity of riparian areas in the plan area, including plan components to maintain, protect, or restore structure, function, composition, and connectivity, taking into account:

(A) Water temperature or chemical composition;

(B) Blockages (uncharacteristic and characteristic) of water courses;

(C) Deposits of sediment;

(D) Aquatic and terrestrial habitats;

(E) Ecological connectivity, and species movement; and

(F) Restoration needs.

(ii) Plans must establish width(s) for riparian management zones around all lakes, perennial and intermittent streams, and open water wetlands, within which the plan components of paragraph (a)(3)(i) of this section will apply, giving special attention to land and vegetation for approximately 100 feet from the edges of all perennial streams and lakes.

(A) Riparian management zone width(s) may vary based on ecologic or geomorphic factors or type of water body; and will apply unless replaced by a site-specific delineation of the riparian area.

(B) Plan components must ensure that no management practices causing detrimental changes in water temperature or chemical composition, blockages of water courses, or deposits of sediment that seriously and adversely affect water conditions or fish habitat shall be permitted within the riparian management zones or the site-specific delineated riparian areas.

(4) *Best management practices.* The plan must require the use of national best management practices for water quality. The Chief of the Forest Service must include

national best management practices for water quality in the Forest Service Directive System.

(b) *Social and economic sustainability*. The plan must include plan components, including standards or guidelines, to guide the plan area's contribution to social and economic sustainability, taking into account:

(1) Social, cultural, and economic conditions relevant to the area influenced by the plan;

(2) Scenic character and sustainable recreation settings, opportunities, and uses;

(3) Multiple uses that contribute to local, regional, and national economies in a sustainable manner;

(4) Ecosystem services,

(5) Cultural and historic resources and uses;

(6) Opportunities to connect people with nature to promote natural resource conservation, and human health.

§ 219.9 Diversity of plant and animal communities

The provisions under this section adopt a complementary ecosystem and species-specific approach to maintaining the diversity of plant and animal communities and the persistence of native species in the plan area. Compliance with the requirements of paragraphs (a) and (b) of this section is intended to provide the ecological conditions to both maintain the diversity of plant and animal communities and support the persistence of most native species in the plan area. When, in the judgment of the responsible official, compliance with the requirements of paragraphs (a) and (b) of this section are insufficient, additional species-specific plan components must be included in accordance with paragraph (c) of this section. The plan must include plan components for providing ecological conditions to maintain the diversity of plant and animal communities and the persistence of native species in the plan area within Forest Service authority and consistent with the inherent capability of the plan area, as follows:

(a) *Ecosystem integrity*. As required by § 219.8(a), the plan must include plan components, including standards or guidelines, to maintain or restore the ecological integrity of terrestrial and aquatic ecosystems and watersheds in the plan area, including plan components to maintain or restore their structure, function, composition, and connectivity.

(b) Ecosystem diversity. The plan must include plan components, including standards or guidelines, to maintain or restore the diversity of ecosystems and habitat types throughout the plan area. In doing so, the plan must include plan components to maintain or restore:

(1) Key characteristics associated with terrestrial and aquatic ecosystem types;

(2) Rare aquatic and terrestrial plant and animal communities; and

(3) The diversity of native tree species similar to that existing in the plan area.

(c) *Additional, species-specific plan components.*(1) If the responsible official determines that the plan components in paragraphs (a) and (b) of this section are insufficient to provide 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 within the plan area,

then additional, species-specific plan components, including standards or guidelines, must be developed to provide such ecological conditions in the plan area.

(2) Where the responsible official determines that it is beyond the authority of the Forest Service, not within the inherent capability of the plan area, or not practicable to maintain or restore the ecological conditions to maintain a viable population of a species of conservation concern in the plan area, the responsible official must:

(i) Document the basis for that determination (§ 219.14(a)); and

(ii) Provide plan components to maintain or restore ecological conditions within the plan area to contribute to the extent practicable to maintaining a viable population of the species within its range. In providing such plan components the responsible official shall coordinate with other Federal, State, Tribal, and private land managers having management authority over lands where the population exists.

(d) *Species of conservation concern*. For purposes of this subpart, a species of conservation concern is a species, other than federally listed threatened, endangered, proposed, or candidate species, that is known to occur in the plan area and for which the regional forester has determined that the best available scientific information indicates substantial concern about the species' capability to persist over the long-term in the plan area.

§ 219.10 Multiple uses

While meeting the requirements of §§ 219.8 and 219.9, the plan must provide for ecosystem services and multiple uses, including outdoor recreation, range, timber, watershed, wildlife, and fish, within Forest Service authority and the inherent capability of the plan area.

§ 219.11 Timber requirements based on the NFMA.

While meeting the requirements of §§ 219.8 through 219.10, the plan must include plan components and other plan content regarding timber management, within Forest Service authority, and the inherent capability of the plan area.

(d) *Limitations on Timber harvest.* Whether for the purposes of timber production or other purposes, plan components must ensure the following:

(3) Timber harvest is carried out in a manner consistent with the protection of soil, watershed, fish, wildlife, recreation, and aesthetic resources.

§ 219.12 Monitoring

(a) *Plan monitoring program.*

(1) The responsible official shall develop a monitoring program for the plan area, and include it in the plan. Monitoring information should enable the responsible official to determine if a change in plan components and other plan content that guide management of resources on the plan area may be needed. The development of the plan monitoring program must be coordinated with the regional forester and agency staff from State and Private Forestry, and Research and Development. Responsible officials for two or more administrative units may jointly develop their plan monitoring programs.

(3) The plan monitoring program should be coordinated and integrated with relevant broader-scale monitoring strategies (paragraph (b) of this section) to ensure that monitoring is complementary and efficient, and that information is gathered at scales appropriate to the monitoring questions.

(4) Subject to the requirements of paragraph (a)(5) of this section, the responsible official has the discretion to set the scope and scale of the plan monitoring program, after considering:

(i) Information needs identified through the planning process as most critical for informed management of resources on the plan area;

(ii) Best available scientific information; and

(iii) Financial and technical capabilities of the Agency.

(5) Each plan monitoring program must contain one or more monitoring questions and associated indicators addressing each of the following:

(i) The status of select watershed conditions;

(ii) The status of select ecological conditions including key characteristics of terrestrial and aquatic ecosystems;

(iii) The status of focal species to assess the ecological conditions required under § 219.9;

(iv) The status of ecological conditions required under § 219.9 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 within the plan area;

(vi) Measurable changes on the plan area related to climate change and other stressors on the plan area;

(vii) The progress toward meeting the desired conditions and objectives in the plan, including for providing multiple use opportunities; and

(b) *Broader-scale monitoring strategies.*

(1) The regional forester shall develop a broader-scale monitoring strategy for plan monitoring questions that can best be answered at a geographic scale broader than one plan area.

(2) When developing a monitoring strategy, the regional forester shall coordinate with the relevant responsible officials, agency staff from State and Private Forestry and Research and Development, partners, and the public. Two or more regional foresters may jointly develop broader-scale monitoring strategies.

(c) *Timing and process for developing the plan monitoring program and broader-scale strategies.*

(2) The responsible official may develop the protocols and methods for the plan monitoring program after approving the plan monitoring program. The responsible official shall document how the best available scientific information was used to inform such development and shall make the documentation available to the public as soon as practicable.

(4) To the extent practicable, appropriate, and relevant to the monitoring questions in the program, plan monitoring programs and broader-scale strategies must be designed to take into account:

(i) Existing national and regional inventory, monitoring, and research programs of the Agency, including from the NFS, State and Private Forestry, and Research and Development, and of other governmental and non-governmental parties;

(ii) Opportunities to design and carry out multi-party monitoring with other Forest Service units, Federal, State or local government agencies, scientists, partners, and members of the public; and

(d) *Biennial evaluation of the monitoring information.*

(1) The responsible official shall conduct a biennial evaluation of new information gathered through the plan monitoring program and relevant information from the broader-scale strategy, and shall issue a written report of the evaluation and make it available to the public.

§ 219.15 Project and activity consistency with the plan

(d) *Determining consistency*. A project or activity approval document must describe how the project or activity is consistent with applicable plan components developed or revised in conformance with this part by meeting the following criteria:

(1) *Goals, desired conditions, and objectives*. The project or activity contributes to the maintenance or attainment of one or more goals, desired conditions, or objectives or does not foreclose the opportunity to maintain or achieve any goals, desired conditions, or objectives, over the long term.

(2) *Standards*. The project or activity complies with applicable standards.

(3) *Guidelines*. The project or activity:

(i) Is designed to comply with applicable guidelines as set out in the plan; or

(ii) Is designed in a way that is as effective in carrying out the intent of the applicable guidelines (§ 219.7(c)(2)(iv)).

CONTEXT WITHIN WHICH THIS DECISION AND SUBSEQUENT DECISIONS ARE MADE

This portion of the BA provides additional context regarding the Agency decision-making processes and authorities, and future environmental effects analyses and ESA consultations.

Staged decision-making

Adoption of a planning rule is only the first step in a series of Agency decisions before any action is taken that directly affects the environment. The Forest Service makes three decisions prior to implementing actual on-the-ground activities and incurring any site-specific effects: approval of a planning rule, approval of a land management plan, and authorization of a project. These three stages of decision-making will continue under whichever planning rule is adopted. Each stage of decision-making is a narrowing of subsequent decision space and the possible range of effects. However, while the rule and plan stages narrow the decision space and range of effects, each also allows for discretion for the next stage of decisionmaking, so that discerning the effects of each is very difficult. Below are brief descriptions of these three stages of decision-making and some examples of the kinds of actions or activities that may have effects to threatened or endangered species.

Planning Rule decision -- Approval of a planning rule to guide development, revision, and amendment of land management plans is a broad policy decision. Accordingly, its environmental consequences extend over a broad geographic area (all NFS lands) and an extended time horizon (multiple decades). It does not dictate plan content with any

specificity, nor authorize projects and activities, and so an impact analysis of the rule is necessarily broad, general, and lacking in specificity.

While a planning rule itself does not authorize, fund, or carry out any actions, its requirements for specific types of land management plan components will influence a responsible official's discretion and decision space when developing and approving a land management plan. The planning rule's potential programmatic effects include those associated with any changes in Agency planning processes and plan content. Approval of the rule will follow with the preparation of an Environmental Impact Statement (EIS) and consultation with ESA reviewing agencies.

Examples of final planning rule provisions that influence how plans are developed and that may have general effects on threatened and endangered species include requirements that all plans must include plan components that:

- (a) *Ecosystem integrity*. Maintain or restore the ecological integrity of terrestrial and aquatic ecosystems and watersheds in the plan area, including plan components to maintain or restore their structure, function, composition, and connectivity (§ 219.9 (a), and
- Maintain or restore ecological conditions to contribute to the recovery of federally listed threatened and endangered species (§ 219.9 (c)(1)(i).

Land Management Plan decisions – Within the requirements set forth in the NFMA planning rule, land management plans provide a programmatic framework and the sideboards to guide decisions for all natural resource management activities on their respective NFS units. Plans include plan components (desired conditions, objectives, standards, guidelines, and suitability of areas) that influence the design and choice of future proposals for projects and activities in a plan area. They provide additional definition of resource management activities needed to implement and achieve desired conditions and objectives and, through suitability determinations, standards, and guidelines, they establish constraints upon the decision space for on-the-ground management decisions. In current planning procedures, and under the final planning rule, approval of a new or revised land management plan is an action requiring an EIS, with potential effects being considered in a more local context; and, if there are potential effects to federally listed species or designated critical habitat, additional section 7 consultation with the FWS and/or NOAA Fisheries will be required. A decision to amend a plan will also require NEPA compliance, as well as ESA consultation if threatened or endangered species issues may be affected.

Some hypothetical examples of plan components that would guide project development and decisions, and that may lead to effects on threatened or endangered species include:

- A desired condition statement for optimum habitat conditions for red-cockaded woodpecker, for example:

  > Vegetation patterns are primarily a product of frequent prescribed fire, longleaf pine restoration harvests and red-cockaded woodpecker habitat improvement practices producing scattered, moderate openings in an open pine canopy. Restoration entails maintaining longleaf and its associated ground cover, while restoring areas now dominated by off-site species to longleaf pine communities over an extended period. Longleaf restoration harvests produce scattered,

moderate-sized openings throughout an area. As a result of frequent prescribed fire, the landscape is composed of relatively open, park-like pine stands eventually dominated by native, fire dependent longleaf pine communities. Other than longleaf, few shrubs and mid-story trees grow on the uplands. The native ground cover is continuous: herbaceous plants dominated by grasses, composites, legumes and other forbs.

- An objective for increasing occupied prairie dog habitat to facilitate the reintroduction of black-footed ferrets, for example:

  To help increase prairie dog populations and habitat for associated species, allow and encourage expansion of prairie dog colonies, with 10 or more colonies of at least 1,000 acres and an inter-colony distance of less than 6 miles over the next 10 to 15 years from the plan approval date.

- An objective for restoring threatened or endangered fish species, for example:

  Over the planning period, initiate habitat restoration for at least two subpopulations of anadromous fish and two populations of resident fish in each subbasin where these species occur.

- A standard for maintaining quality Indiana bat hibernacula, for example:

  Establish a one-quarter mile buffer around all known hibernacula. Within this one-quarter mile buffer:

  - Prohibit new trail and road construction.
  - Do not conduct prescribed burning during the fall swarming period (generally mid-August to mid-October) or during the hibernation period (September 15 through April 15).

- A standard for maintaining stream quality for threatened or endangered fish species, for example:

  In waters in which threatened, endangered, proposed or candidate fish live, do not authorize new surface diversions unless they provide upstream and downstream passage for such fish; and, if needed, include either fish screens that meet NOAA Fisheries and/or FWS criteria or other means to prevent fish entrapment or entrainment.

- A guideline for maintaining quality Canada lynx habitat, for example:

  National Forest System dirt and gravel roads that traverse lynx habitat should generally not be paved or otherwise upgraded in a manner that is likely to lead to significant increases to lynx mortality or substantially impedes lynx movement and dispersal.

- A guideline for maintaining aquatic habitats for threatened or endangered fish species, for example:

  For watersheds with listed aquatic species, essential fish habitat, or designated critical habitat, transportation system design criteria for fish passage should be coordinated with NOAA Fisheries or FWS, as appropriate.

Project decisions -- The last decision-making step is the authorization of projects and activities. Projects and activities must be consistent with the applicable land management plan, and must be made in compliance with all relevant laws. Authorization of a project or activity will determine that a specific action will occur at a specific place in the plan area, and site-specific effects can only be identified and analyzed at this step of decision making. A decision at this step will require an additional environmental analysis (EIS, environmental assessment, or categorical exclusion) and additional consultation with ESA reviewing agencies when the project or activity may affect a federally listed species or critical habitat.

Examples of projects or activities that may have site-specific effects on TES species include:

- A specific road decommissioning to reduce overall road density in Canada lynx habitat.
- Replacement of an improperly sized stream culvert that is currently restricting upstream movement of cutthroat trout into currently unoccupied habitat.
- A prescribed burn to restore longleaf pine stands and improve red-cockaded woodpecker foraging habitat.
- Oil/gas exploration and/or development in currently occupied black-tailed prairie dog habitat.

Hierarchy of laws, regulations, and Agency policy

While land management plans influence the choice and design of future proposals and decisions concerning projects and activities in a plan area, they do so within a hierarchy of laws, regulations, and Agency policy. At the top of this hierarchy are the relevant statutes that responsible officials must follow when authorizing projects and activities on NFS lands. Such statutes generally require implementing regulations that must also be complied with. For example, compliance with the Endangered Species Act (ESA), Section 7 consultation requirements is guided by regulations at 50 CFR 402.

Responsible officials must ensure that project and activity proposals not only comply with laws and regulations, but also with Agency policy. Forest Service directives are the primary basis for the Forest Service's internal management of all its programs and the primary source of administrative direction to Forest Service employees. The Forest Service Manual (FSM) contains legal authorities, objectives, policies, responsibilities, instructions, and guidance needed on a continuing basis by Forest Service line officers and primary staff to plan and execute Agency programs and activities. Just as regulations must follow laws, Agency policy must follow laws and regulations. FSM 2670 provides the overall Agency directives for its threatened, endangered and sensitive species (TES) program. This manual currently provides Agency policy and direction for species that are federally listed as threatened or endangered under ESA, species proposed for Federal listing, and sensitive species, which are those plant and animal species identified by a regional forester for which population viability is a concern. It includes specific direction for conserving TES species, analyzing and documenting any potential effects of Agency actions on TES species, and consulting with ESA reviewing agencies on any effects Agency actions may have on federally listed species. It also directs the responsible official to identify sensitive species relevant to each plan area. This and other Forest Service policy directives will continue to provide additional specific direction for land management plan level and project level activities. These directives can

and will be periodically revised to reflect changes in planning rule requirements, Agency policies, and new scientific information.

Agency compliance with laws, regulations, and policy is not discretionary and has an important bearing on the decision-making process and the range of effects that can be expected to occur at each decision level.

Oversight and Quality Assurance

The final planning rule provides that the Chief of the Forest Service is responsible for leadership and direction in carrying out the National Forest System land management planning program, and requires that the Chief:

- Establish planning procedures for this part in the Forest Service Directive System in Forest Service Manual 1920—Land Management Planning and in Forest Service Handbook 1909.12—Land Management Planning Handbook.
- Administer a national performance oversight and accountability process to review National Forest System land management planning under this part.
- Establish procedures in the Forest Service Directive System for obtaining inventory data on the various renewable resources, and soil and water.

Additionally, there are a number of levels of oversight and quality assurance measures within the Forest Service that will ensure that the requirements of the final planning rule are met during plan development, revision, or amendment. The Washington Office, Ecosystem Management Coordination (EMC) director area has a primary oversight role for all National Forest Management Act (NFMA/planning) and National Environmental Policy Act (NEPA) activities of the Forest Service. EMC staff will develop training materials, technical guides and required manual and handbook directives for implementing the final planning rule.

These efforts will build consistency across the Agency in the interpretation and implementation of the new rule. Regional Office planning and resource specialists provide an additional level of oversight by reviewing draft and final products developed during the planning process and often by participating in the development of those products. Regional Office oversight ensures consistency in interpretation and implementation of the rule between units within the region.

The Responsible Official has the responsibility to ensure that all laws, regulations, and Agency policy are complied with in the planning process. Those findings are documented in a decision document that is available to the public.

Description of the Specific Area that May be Affected by the Action

The final NFMA Planning Rule will apply to land and resource management planning for all the lands and resources of the National Forest System (NFS), which includes approximately 193 million acres in 44 states, Puerto Rico, and the Virgin Islands. The NFS is composed of 155 national forests, 20 national grasslands, one national prairie, and other miscellaneous lands under the jurisdiction of the Secretary of Agriculture. The Forest Service administers the NFS in accordance with the Multiple-Use Sustained-Yield Act (MUSYA), the NFMA, and other laws.

Description of any Listed Species or Critical Habitat that May be Affected by the Action

FEDERALLY RECOGNIZED SPECIES CURRENTLY IDENTIFIED ON NFS LANDS

Currently, 430 species federally listed as threatened or endangered and six species proposed for federally listing are known to occur on NFS lands. The most recent lists of the threatened and endangered species, and proposed species known to occur on NFS lands can be found in Appendix A and B, respectively. Currently, over 16 million acres of terrestrial habitat and 22,000 miles of stream habitat on NFS lands are designated as critical habitat for threatened and endangered species. A listing of the designated critical habitat occurring on NFS lands can be found in Appendix C.

Additionally, 60 species known or suspected to occur on NFS lands are currently identified as candidates for Federal listing. A list of these candidate species can be found in Appendix D. This BA evaluates and documents the potential programmatic effects to endangered, threatened, proposed, and candidate species listed in Appendices A-D.

The FWS defines a candidate species as a species for which the FWS possesses sufficient information on vulnerability and threats to support a proposal to list as endangered or threatened, but for which no proposed rule has yet been published. The NOAA Fisheries, which has jurisdiction over most marine species, defines a candidate species as a species that is (1) the subject of a petition to list and for which the National Marine Fisheries Service has determined that listing may be warranted, pursuant to section 4(b)(3)(A), and (2) not the subject of a petition but for which the National Marine Fisheries Service has announced the initiation of a status review in the Federal Register.

POTENTIAL FUTURE LISTINGS OF T & E SPECIES ON NFS LANDS

The final rule is not specific with respect to any T & E species. This consultation and conferencing covers the rule's potential effect on all T & E, proposed, and candidate species currently identified for NFS lands. The Forest Service, FWS, and the NOAA Fisheries anticipate the possibility of future Federal listings of species that are not being consulted or conferenced on under this BA. Under the final planning rule, plan components must "provide the ecological conditions to contribute to the recovery of threatened and endangered species" and to "conserve proposed and candidate species," regardless of whether such species are on the current lists provided with this BA or become federally listed after the Rule is issued. More broadly, the final planning rule requires plan components that, as they are implemented, maintain or restore ecological conditions and habitat connectivity that are expected to support the persistence of most native species within the plan area.

This BA is intended for consultation on the issuance of a final planning rule. The agencies do not anticipate any circumstances that would require re-initiation of consultation on this rule. In the event that a species that is not identified in Appendix A of this BA becomes federally listed as threatened or endangered, or a species that is currently federally listed is discovered to occur on NFS lands, any necessary consultation between the Forest Service and the appropriate reviewing agency will be completed at the forest or grassland plan level.

Description of the Manner in which the Action May Affect any Listed Species or Critical Habitat and an Analysis of any Cumulative Effects

This section of the BA discloses and evaluates the potential effects to T & E species, as well as for proposed and candidate species on NFS lands, including those that are expected to promote the conservation of threatened and endangered species and to further ESA goals. This BA goes beyond disclosing and evaluating the potential effects of the final rule specific to threatened, endangered, proposed, and candidate species by evaluating the potential effects that it will have on future planning processes, plan content, and to the terrestrial and aquatic ecosystems on NFS lands over time as these future plans are implemented. In doing so, this BA specifically evaluates the potential effects that the final rule will subsequently have on the diversity of plant and animal communities, the persistence of species, and on the NFS ecosystems upon which many T & E species depend, which is a fundamental goal of the ESA. These effects are relevant to the conservation of T & E species on NFS lands and across their ranges.

ENVIRONMENTAL SETTING AND CONTEXT

This portion of the BA provides a broad discussion of the context within which potential effects of the final planning rule to T & E species on NFS lands are disclosed and evaluated. Many of the actions and situations described in these discussions are expected to continue or occur outside the provisions of the final rule.

Consultation history over past 10 years

Under the current Forest Service direction for management for threatened, endangered and sensitive plants and animals, contained in FSM 2670, a biological evaluation (BE) is required by the Agency to analyze and document any potential effects of a proposed project, activity, or program to threatened, endangered or Forest Service listed sensitive (TES) species or critical habitat; and to determine the conservation significance of such effects. A BE is prepared to determine whether a proposed action: may affect a federally listed (T&E) species or a species proposed for federally listing or designated critical habitat. The Agency requires a BA for actions which are likely to adversely affect a listed species or critical habitat; may jeopardize the continued existence of a species that is proposed for federally listing; or may adversely modify designated or proposed critical habitat.

Over the past 10 years, the Forest Service has prepared nearly 62,000 BAs and BEs for Agency proposed actions (plans, projects, programs, activities). Of those proposed actions, the Forest Service determined that approximately 80 percent would have “no effect” on T&E species or critical habitat. For each of the remaining 20 percent (13,000 proposed actions), the Forest Service determined that a proposed action may affect a federally listed species or modify designated critical habitat. As required by the ESA, the Forest Service consulted on those proposed actions with the relevant reviewing agency, the FWS or NOAA Fisheries. For approximately 80 percent (10,500) of those proposed actions, the Forest Service made a may affect, but not likely to adversely affect T & E species or designated critical habitat determination, which means that the effects to T&E were discountable, insignificant, or wholly beneficial. Many of these actions were beneficial to T&E species or designated habitat. Through informal consultation, the relevant reviewing agency concurred with the Forest Service determination on all of these actions.

For each of the approximately 2500 remaining proposed actions, where the Forest Service determined the action was likely to adversely affect a T&E species or critical habitat, the Agency formally consulted with the relevant reviewing agency on whether the action was

likely to jeopardize the continued existence of a T&E species or result in the destruction or adverse modification of critical habitat. Each of those formal consultations ended with the reviewing agency providing its Biological Opinion that the proposed action was not likely to either jeopardize the continued existence of the species or result in the destruction or adverse modification of critical habitat.

Past and ongoing Threatened and Endangered Species recovery efforts and actions

The Forest Service has long carried out actions to support the recovery of T & E species. Over the past five years, national forests and grasslands across the NFS implemented an average of approximately 800 projects per year that accomplished recovery activities on approximately150-205 threatened or endangered species per year (data taken from the U.S. Forest Service Wildlife, Fish, and Rare Plant database). Examples of some of the types of recovery actions that have occurred on NFS lands and contribute to recovery of federally listed species include:

- Chiricahua leopard frog: A federally listed threatened species that occurs on NFS lands in the southwest. Recovery efforts for this species in 2010 included: approximately 130 miles of lake, stream, and pond surveys of known occupied sites and potential sites for reintroduction; 5000 acres of habitat restoration through multiple introductions; 15 acres of habitat restoration through habitat enhancement; ongoing population monitoring of reintroduction sites; field assessments of potential future reintroduction sites; collection of individuals for captive breeding stock; and construction of refugia for existing populations.
- Kirtland's warbler: A federally listed endangered species that occurs on NFS lands in the Great Lakes region. Recovery efforts for this species in 2010 included: inventory of over 31,000 acres of habitat to determine occupation and distribution of breeding pairs; approximately 10,000 acres of habitat restored through prescribed burns, plantations, and area closures to minimize disturbance during critical breeding periods; assessments of vegetation conditions on 500+ acres of occupied habitat; and sponsoring one student partnership in the Bahamas (wintering grounds).
- Red-cockaded woodpecker: A federally listed endangered species that occurs on NFS lands in the southeast. Recovery efforts for this species in 2010 included: inventory and monitoring on over 320,000 acres of habitat, including breeding activity status on well over 700 cluster sites; multiple translocations of individuals and pairs within and among populations; installation and maintenance of nearly 500 artificial nesting cavities; over 12,000 acres of habitat improvement through midstory removal and thinning; and approximately 486,000 acres habitat improvement through prescribed burning.
- Bull trout: A federally listed threatened species that occurs on NFS lands in the west. Recovery efforts for this species in 2010 included: nearly 30 miles of stream improvement through removal or replacement of culverts to restore aquatic organism passage; nearly 50 miles of stream improvement through road obliteration, upgrades, and improved management; approximately 10 miles of instream and riparian habitat improvement; and 38 miles of stream improvement through fencing and livestock exclusion.
- Chinook salmon (California Coastal Evolutionarily Significant Unit): A federally listed threatened species that occurs in the west. Recovery efforts for this species in 2010

included: approximately 60 miles of red surveys; approximately 5 miles of habitat improvement through the removal and replacement of culverts; and completion of one administrative study.

- Smooth purple coneflower: A federally listed endangered species that occurs on NFS lands in the piedmont area of the southeast. Recovery efforts for this species in 2010 included: approximately 2800 acres of habit restoration through prescribed burning; approximately 1800 acres of habitat inventory; and implementation of 2 monitoring plans.
- Karner blue butterfly: A federally listed endangered species that occurs on NFS lands in the Great Lakes region. Recovery efforts for this species in 2010 included: approximately 300 acres of habitat restoration through prescribed burning; 200+ acres of occupied habitat restoration or improvement through woody vegetation removal, seeding, and invasive species control; approximately 144 acres of habitat protection via road and area closures; seed collection of host and nectar plants; and inventory and monitoring of approximately 900 acres of habitat.
- Black-footed ferret: A federally listed endangered species that occurs on NFS lands in the Great Plains. Recovery efforts for this species in 2010 included: an amended grassland plan to manage prairie dogs to support reintroductions; approximately 2700 acres of habitat improvement through prescribed burning; approximately 200 acres of habitat improvement via prairie dog translocations to ferret reintroduction area; and approximately 11,000 acres of habitat improvement via dusting prairie dog burrows for plague in occupied habitat.
- Indiana bat: A federally listed endangered species that occurs on NFS lands in the east. Recovery efforts for this species in 2010 included: approximately 66,000 acres of inventory and monitoring of habitat via acoustic, site visits, and mist-netting; completion of 7 monitoring plans; installation of 6 gates on caves or mines; cave closure education; bat gate monitoring; approximately 12,000 acres of habitat improvement through snag creation; completion of one radio telemetry study; 25 pond enhancements to improve foraging habitat; and approximately 5 acres of habitat improvement via fencing to restrict OHV use and disturbance to occupied habitat.
- Eastern indigo snake: A federally listed threatened species that occurs on NFS lands in the southeast. Recovery efforts for this species in 2010 included: approximately 45,000 acres of habitat improvement through prescribed burning, thinning, and invasive species control; and trapping and reintroducing snakes to Conecuh NF.

<u>Affected Environment (summarized from the final PEIS)</u>

The 193 million acres of the National Forest System support much of North America's wildlife heritage, including: habitat for 430 federally listed threatened and endangered species, six proposed species, and 60 candidate species, with over 16 million acres and 22,000 miles of streams designated as critical habitat for endangered species; approximately 80% of the elk, mountain goat, and bighorn sheep habitat in the lower 48 States; nearly 28 million acres of wild turkey habitat; approximately 70% of the Nation's remaining old growth forests; over 5 million acres of waterfowl habitat; habitat for more than 250 species of migratory birds; habitat for more than 3,500 rare species; some of the best remaining habitat for grizzly bear, lynx, and many reptile, amphibian and rare plant species; over two

million acres of lake and reservoir habitat; and over two hundred thousand miles of fish-bearing streams and rivers.

Land management plans developed under the provisions of the 1982 planning rule are the primary source of direction for maintaining species diversity, managing plant and animal habitats, and conducting monitoring on national forests and grasslands. Laws such as the Endangered Species Act, the Migratory Bird Treaty Act, and the Bald Eagle Protection Act; specific Forest Service directives and policy; and advances in scientific understanding of how ecosystems function also have been very important in maintaining biological diversity. They all have greatly influenced forest and grassland plan components and the use of evolving approaches to achieve biological diversity conservation on NFS lands.

A variety of extrinsic factors, influences, and conditions that affect threatened, endangered, proposed, and candidate species and critical habitat on the NFS plant and animal communities are expected to continue, independent of any planning rule. Climate change, changing land use patterns, and other environmental stressors are expected to influence ecological conditions on NFS lands to some degree. Currently, there is insufficient understanding of the nature or magnitude of impacts to species from these factors.

The effects of climate change on the current and desired ecological conditions within plan areas across the National Forest System are difficult to predict and will vary from unit to unit. Consequently, the Agency's ability to maintain or restore the necessary ecological conditions within a plan area needed to maintain the existing diversity and viability of all species native to those areas is uncertain. Expected changes in climate over the next several decades will have some influence over existing or expected habitat conditions, species distribution, and landscape connectivity.

Large, high-intensity wildfires, insect and disease epidemics, catastrophic wildfires, changing atmospheric conditions, and the spread of invasive species are examples of other types of environmental stressors that can be highly unpredictable and difficult for the Agency to manage or control. These too will influence ecological conditions and species diversity on national forest and grassland units in ways that are difficult to predict. Changing land use patterns and other activities on lands adjacent to national forests and grasslands can affect species distribution and persistence within plan areas. Additionally, changes occurring at a distance from NFS lands, such as on migration routes or wintering grounds, will also affect species diversity on a national forest or grassland in unpredictable ways.

The shifting nature of the Agency's budgets, staffing, and program emphases along with legal requirements that both directly and indirectly influencing land management will continue to occur beyond the authority of a planning rule. These also create some level of uncertainty regarding how plans and projects are developed and implemented.

The Interim Update of the 2000 Renewable Resources Planning Act Assessment (USDA Forest Service 2007c) makes the following summary statements and assumptions relevant to plant and animal diversity and to T & E conservation on NFS lands:

- The largest reserves of intact forest are concentrated on public lands and the largest share of intact forest is contained in the NFS. For some types of ecosystems, only NFS lands contain significant amounts of intact forest.

- The status of adjacent private lands can determine the degree of intactness that can be achieved on public lands. For example, urbanization of private land next to public land increases the likelihood of invasive species on the public land. Even if public lands can be kept intact, changes in biological diversity will occur as forests and habitats evolve and as natural disturbances/succession lead to change such as the decline in aspen in parts of the West and North.
- Those species that have been able to adapt to human activities did well in the 20th century, as have species such as elk that are highly valued and managed by humans. Species that need large undeveloped landscapes or specialized habitats vulnerable to development pressures did not do as well. Many species that are formally listed as threatened or endangered share some of these characteristics.
- The rate of species listed as threatened or endangered has declined five fold since the 2000 RPA Assessment (USDA Forest Service 2001). This decline may not reflect so much on the condition of threatened and endangered species as on funding and other factors. Conservation efforts should continue to focus on those areas supporting higher numbers of species thought to be at risk of extinction. Most future forest loss will be to development/urbanization. We can expect more widespread occurrences of invasive species as this development progresses.
- The area of private lands protected by conservation easements is growing. These easements offer various levels of protection, but most minimize the possibility for urbanization.
- A development of the past 15 years has been forest industry's sale of large parcels of timber land, primarily to timber investment management organizations and real estate investment trusts. The objective of industry ownership was generally to protect a source of timber supply and reduce the risks of timber price volatility. Because the industry managed its lands for timber production, this ownership generally assured maintenance of large landscapes. The sale of forest industry lands creates uncertainty about the long-term nature of these lands and the implications for associated biodiversity.
- Stability in the area of forest land does not mean no changes have occurred in forest area. Between 1982 and 1997, 23 million acres went out of forest land and 26.6 million acres went into forest land. Areas converted from forests went mainly to developed uses. Areas going into forest came primarily from pasture land.
- Forests in the United States are getting older. This aging will lead to increased diversity of forest structure, but to a decreased diversity of forest types because later successional stages will continue to increase at the expense of earlier successional stages. Although forests are getting older, duplication of pre- European conditions is not possible.
- Expected increases in plantation areas in the South will be the source of much of the United States' increase in softwood timber supply. This increase will tend to decrease prices and reduce pressure for harvest on some private timber lands. Reduced harvest will change the dynamics of temporal changes in habitat and biodiversity.

- The changing U.S. population is expected to demand increased ecosystem services coming from forest land and rangeland resources, including fresh water, protection from drought and floods, carbon storage, recreation, and other cultural benefits.
- Total forest land in the United States has remained relatively stable at about 750 million acres since 1900, but this stable trend masks dynamic shifts among forest types, forest age classes, and how forest cover is arranged on the landscape due to land use intensification. As an example of the regional shifts, forest cover is declining in all six New England states for the first time in 150 years (Foster et al. 2010). Keeton (2007) further states: "In the 1990's more than 80% of housing development was in rural areas (Heimlich and Anderson 2001); each year the U.S. loses almost 500,000 ha of forestland to the 'direct footprint' of development and other land conversions, and there is a much larger 'indirect footprint' that includes fragmentation effects (USDA Forest Service 2004)."
- The area of rangeland in the United States has slowly declined from about 800 million acres in 1900 to approximately 580 million acres today. Rangeland area is projected to decline slowly over the next 50 years.
- Concurrent with climate change could be land cover and land use changes, increases in atmospheric pollutants such as ozone and nitrous oxides, and potential expansion of exotic plants and animals, some of which might be considered invasive
- The largest reserves of intact forest in the United States are concentrated on public lands, with the largest share of public intact forest contained in the National Forest System (NFS). Since private lands can limit the degree of intactness on adjacent public lands, joint management might be needed to achieve a specified level of forest intactness.
- Geographic areas within the United States that have high levels of threatened and endangered species continue to be concentrated in the southern Appalachians, coastal areas, and the arid Southwest.

Should these conditions continue and assumptions remain valid, they too, could have a bearing on plan development, revision, or amendment.

EFFECTS OF THE RULE

Overall Effects of the Final Planning Rule (summarized from the final PEIS)

The following bullets are summary statements from the Diversity of Plant and Animal Communities section of Chapter 3 of the final PEIS. Additional discussions can be found in the final PEIS. The final rule's requirements will affect the required content for future plans. As plans developed or revised under this rule are implemented, the following broad, general effects to plant and animal diversity are likely outcomes on planning areas across the NFS. These outcomes for maintaining the diversity of plant and animal communities and the persistence on native species will have effects on federally listed species and the ecosystems upon which they depend.

- All plans would incorporate a complementary coarse-filter and fine-filter strategy (§ 219.9) to maintain biological diversity within the plan area. This approach is more scientifically credible and supportable in maintaining biological diversity than the approach provided under the 1982 planning rule, and considers all native species, rather

than focusing on vertebrates only. As plans are implemented under these provisions, NFS lands are expected to more consistently provide the ecological conditions necessary to maintain the diversity of plant and animal communities and the persistence of native species, including federally listed, proposed, and candidate species.

- Plans would emphasize ecological restoration and connectivity and, where necessary, provide species-specific plan components focused on at-risk species, which include federally listed, proposed, and candidate species, and species of conservation concern (§ 219.9). As these plans are implemented, ecological conditions for many federally listed species, species proposed and candidates for listing, and species of conservation concern are expected to improve within and among plan areas. It is also expected that the abundance and distribution of many of these species will also improve over time within the plan area.
- Planning would recognize the need to coordinate conservation measures with other land managers (§ 219.4) for species of conservation concern whose range and long term viability is associated with lands beyond the plan area. This coordination should lead to more effective collaborative approaches to addressing the range-wide concerns of these species.
- Planning would actively engage in a collaborative, all lands approach to maintaining biological diversity. This approach is expected to provide the best opportunity for recovering threatened and endangered species, preventing the listing of candidates to Federal listing, and conserving other species of conservation concern.
- Planning would assess key ecosystem characteristics (§ 219.6) of terrestrial and aquatic ecosystems within the plan area and would include in plans specific plan components that focus management actions on maintaining and restoring ecological conditions, including connectivity, that maintain or improve the ecological integrity of these ecosystems (§§ 219.8 and 219.9). Over time, as management activities are implemented to achieve the desired ecological conditions, habitat quantity is expected to increase and habitat quality is expected to improve for most native species across the NFS.
- Plans would include specific restoration components for riparian areas (§ 219.8). The implementation of these components is expected to result in improved streamside, wetland, lakeside, and aquatic habitats, especially for aquatic and riparian species.
- Plans would include ecological monitoring elements (ecological conditions, ecosystem characteristics, and focal species) (§ 219.12) that would be broader in scope than the MIS monitoring requirement in the 1982 planning rule, and thus more effective and efficient at assessing the diversity of plant and animal communities and persistence of native species within the plan area. Reliable information from this monitoring would be expected to identify the need to amend or revise a plan or alter management approaches and activities in a timelier manner than monitoring under the 1982 planning rule.
- Plans would require a monitoring element that specifically addresses the status of ecological conditions that 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 within the plan area (§ 219.9). This monitoring question and associated indicator places additional emphasis on moving

desired ecological conditions towards those needed to support species that are most vulnerable within the plan area.

- Planning would establish a two-tiered approach to monitoring, at the unit scale and at a broader scale (§ 219.12), emphasize collaboration and coordination (§ 219.4), and increase the role of science (§ 219.3) over that required under the 1982 planning rule. These procedures and processes facilitate the gathering, assessing, and incorporating information beyond national forest and grassland boundaries, which should consistently lead to more effective approaches to the conservation of all species within the broader region beyond the plan area than the approach taken under the 1982 rule.

Specific effects of the Final Planning Rule to federally listed threatened and endangered species (T&E), and on preventing the listing of other at-risk species occupying NFS lands

As part of the Forest Service mission, the actions needed to recover threatened and endangered species and maintain or restore critical habitats are a high priority. Under the ESA, the Forest Service is to carry out "programs and activities for the conservation of endangered species and threatened species" (16 USC 1536 (a)(1)) and "insure that any action authorized, funded or carried out by [it] is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [designated critical habitat]" (16 USC 1635 (a)(2)).

Under the final planning rule, plans would address conservation measures and actions identified in recovery plans relevant to threatened and endangered species in the plan area. The Forest Service would continue to collaborate with the FWS and NOAA Fisheries in the development and implementation of recovery plans for these species. The Forest Service would also continue to work with FWS, NOAA Fisheries, States, and other partners to conserve and recover federally listed plant and animal species. The Agency would continue to restore NFS ecosystems and habitats through a number of management activities, including monitoring, habitat assessments, habitat improvements through vegetation treatments and structure installation, species reintroductions, development of conservation strategies, research, and conservation education. In addition, the Agency would continue to evaluate effects of proposed management actions to threatened and endangered species or designated critical habitat.

The final planning rule would require the responsible official to explicitly recognize the recovery of threatened and endangered species as an important part of land management plans and provide plan components to maintain or restore ecological composition, structure, function, and connectivity. Additionally, the requirements in the Sustainability and Diversity of Plant and Animal Communities sections (§§ 219.8 and 219.9) are linked to the requirements for public participation, assessments, and monitoring (Sections 219.4, 219.6, and 219.12 respectively). Collectively these requirements are intended to have the responsible official work beyond the planning unit boundary to collaborate and cooperate with other landowners and land managers in working toward an all-lands approach to ecosystem and species diversity and conservation.

The final planning rule contains specific requirements for plan components to provide, on a ecosystem or species-specific basis, for ecological conditions that that contribute to the recovery of threatened and endangered species, conserve proposed and candidate species, and maintain the viability of other species of conservation concern in the plan area. The

direction in the Sustainability and Diversity of Plant and Animal Communities sections (§ 219.8 and 219.9) will directly influence the development and revision of plans to include plan components that, when implemented over time, will be proactive in the conservation of federally recognized threatened, endangered, proposed, and candidate species, and Agency identified species of conservation concern in NFS plan areas. Under the new rule, plan components are also expected to further the purposes of Section 7(a)(1) of the ESA, by requiring plans to guide the agency in actively contributing to threatened and endangered species recovery by maintaining or restoring the ecosystems upon which they depend. The plan components are expected to continue to emphasize the importance of Agency recovery efforts and actions, as described earlier. They are also expected to improve consistency among planning units in their approach to these at-risk species. The Chief of the Forest Service will include direction for addressing Section 7(a)(1) of the Endangered Species Act in plans in the Forest Service Directive System.

Additionally, final planning rule language explicitly emphasizes the role of science in preparing, revising or amending a plan (§ 219.3); collaboration, including coordination with other planning efforts and consideration of objectives of other agencies and entities (§ 219.4); the encouragement of appropriate agencies and entities to participate in determining assessment needs and identify contributions of relevant broad-scale assessments and plans of other agencies and governments (§ 219.6); and the incorporation of broad-scale monitoring to address questions that are more appropriately answered at scales beyond NFS boundaries. These rule requirements would be incorporated into future planning processes and plans, and as these plans are implemented, they may further facilitate contributions to ESA goals.

As plans are implemented under the provisions of this rule, NFS land management is expected to further the purposes of the ESA by carrying out programs for the conservation of federally listed species; however, as land management plans are developed and subsequent projects are implemented, they “may affect” federally listed threatened or endangered species or designated critical habitat on National Forest System lands. In these instances, ESA consultation with the appropriate reviewing agency(s) will occur.

For cumulative impacts to accrue on these resources there must first be an impact from the action under review that can then be added to the impacts of other past, present, or reasonably foreseeable future actions that affect these resources. The final planning rule will guide development, revision, and amendment of land management plans across the NFS. Plans in turn will guide the management of a plan area.

The affected environment for the planning rule, as noted previously, constitutes 193 million acres of NFS lands across 176 NFS planning units and 44 states. Attempting to describe the cumulative effects of each and every past, present, and reasonably foreseeable Forest Service project for the entirety of these lands is neither possible nor informative at the programmatic level. As noted in CEQ’s guidance memorandum of June 24, 2005, the effects of past actions can generally be captured by a description of the affected environment (Council on Environmental Quality 2005). This description can be found in the Environmental Setting and Context portion of this document beginning on page 15. Examination of the effects of the final planning rule on pending or reasonably foreseeable project-level decisions would be speculative at least until individual unit plans are developed and the possible effect of those plans on pending or future projects could potentially be forecast, other than to say that future plans will comply with the rule and future projects will be consistent with the plans. Under

the final planning rule, future Forest Service actions are expected to continue to avoid jeopardizing the continued existence of any threatened or endangered species or result in the destruction or adverse modification of designated critical habitat. The recovery actions, activities, and efforts discussed within this document will continue and are more likely to increase under the provisions of the final planning rule.

A broader discussion of the cumulative effects for the final rule is described in Chapter 3 of the final PEIS.

Conclusions

Overall, the final planning rule will directly influence plans to incorporate plan components that are expected to have broad beneficial effects on threatened and endangered species and designated critical habitat on NFS lands. However, due to all the possible actions and activities at the land management planning or project levels, as well as extrinsic factors discussed earlier, the final rule's potential effects on any or all federally listed species cannot be anticipated or addressed in this programmatic BA. Additional consultation with the appropriate reviewing agency(s) will occur at the plan development, revision, or amendment stage and again at the project stage, whenever any of these decisions may affect any federally listed species or designated critical habitat.

Relevant Reports, including any environmental impact statement, environmental analysis, and biological assessment prepared

A completed draft Final NFS Land Management Planning Rule and draft Final Programmatic Environmental Impact Statement will accompany this Biological Assessment.

Any other relevant available information

Appendices A-D provides the most recent list of: threatened and endangered species; proposed species; candidates for Federal listing; and designated critical habitat occurring on NFS lands. Appendix E provides a summary of the consultations conducted by the Forest Service, NOAA Fisheries, and the FWS.