Appendix F – Alternative D

This alternative was designed to evaluate additional protections for watersheds and an alternative approach to diversity of plant and animal communities. These approaches were addressed together because they both involve requirements for plan content for resource protection, as opposed to other issues that are concerned with procedural requirements. This alternative consists of the proposed rule (Alternative A) with additional and replacement direction focused on coordination requirements at § 219.4, assessment requirement s at § 219.6, sustainability requirements at § 219.8, species requirements at § 219.9, monitoring requirements at § 219.12, and some additional and alternative definitions at § 219.19.

Instead of repeating all of the rule text common to both this alternative and the proposed rule, text of this alternative is displayed in a side-by-side format to demonstrate how and where it differs from the proposed rule.

Alternative A	Alternative D
§ 219.4 REQUIREMENTS FOR PUBLIC PARTICIPATION.	
(a) *Providing opportunities for participation.* 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. When developing opportunities for public participation, the responsible official shall take into account the discrete and diverse roles, jurisdictions, responsibilities, and skills of interested and affected parties; the accessibility of the process, opportunities, and information; and the cost, time, and available staffing. The responsible official	*[Provisions at § 219.4 (a) are identical to Alternative A]*

Alternative A	Alternative D
should be proactive and use contemporary tools, such as the internet, to engage the public, and should share information in an open way with interested parties. (1) *Scope, methods, and timing*. The responsible official shall provide opportunities for participating in the assessment process; developing a plan proposal, including the monitoring program; commenting on the proposal and the disclosure of its environmental impacts in accompanying NEPA documents; and reviewing the results of monitoring information. Subject to the notification requirements in § 219.16, the responsible official has the discretion to determine the scope, methods, forum, and timing of those opportunities. (2) *Participation opportunities for individual members of the public and entities*. The responsible official shall encourage participation by interested individuals and entities, including those interested at the local, regional, and national levels. (3*) Participation opportunities for youth, low-income populations, and minority populations*. The responsible official shall encourage participation by youth, low-income populations, and minority populations. (4) *Participation opportunities for private landowners*. The responsible official shall encourage participation by private landowners whose lands are in, adjacent to, or otherwise affected by, or whose actions may impact, future management actions in the plan area. (5) *Consultation with federally recognized Indian Tribes and Alaska Native Corporations*. The Department recognizes the Federal Government's trust responsibility for federally recognized Indian Tribes. The	

Alternative A	Alternative D
responsible official shall honor the government-to-government relationship between federally recognized Indian Tribes and the Federal government. The responsible official shall provide to federally recognized Indian Tribes and Alaska Native Corporations the opportunity to undertake consultation in accordance with Executive Order 13175 of November 6, 2000 and 25 U.S.C. 450 note. (6) *Participation opportunities for federally recognized Indian Tribes and Alaska Native Corporations*. The responsible official shall encourage participation in the planning process by interested or affected federally recognized Indian Tribes or Alaska Native Corporations. The responsible official may participate in planning efforts of federally recognized Indian Tribes and Alaska Native Corporations, where practicable and appropriate. (7) *Native knowledge, indigenous ecological knowledge, and land ethics*. As part of tribal participation and consultation as set forth in paragraphs (a)(5) and (6) of this section, the responsible official shall request information about native knowledge, land ethics, cultural issues, and sacred and culturally significant sites. (8) *Participation opportunities for other Federal agencies, federally recognized Tribes, States, counties, and local governments*. The responsible official shall provide opportunities for other government agencies to participate in planning for NFS lands. Where appropriate, the responsible official shall encourage federally recognized Tribes, States, counties, and other local governments to seek cooperating agency status in the NEPA process for a plan development, amendment, or revision. The responsible official may participate in planning efforts of States, counties, local	

Alternative A	Alternative D
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, to the extent practicable and appropriate. (2) For plan development or revision, the responsible official shall review the planning and land use policies of federally recognized Indian Tribes, Alaska Native Corporations, other Federal agencies, and State and local governments, where relevant to the plan area. The results of this review shall be displayed in the environmental impact statement for the plan (40 CFR 1502.16(c), 1506.2). The review shall include consideration of: (i) The objectives of federally recognized Indian Tribes, Alaska Native Corporations, other Federal agencies, and State and local governments, as expressed in their plans and policies; (ii) The compatibility and interrelated impacts of these plans and policies; (iii) Opportunities for the plan to address the impacts identified or contribute to joint objectives; and (iv) Opportunities to resolve or reduce conflicts, within the context of achieving the Forest Service desired conditions or objectives. (3) Nothing in this section should be read to indicate that the responsible official will seek to direct or control management of lands outside of the planning area, nor will the responsible official conform management to meet non-Forest Service objectives or	*[Provisions at § 219.4(b) are identical to Alternative A]*

Alternative A	Alternative D
policies.	*(c) Coordination for species viability.* (1) Management coordination – If a population is distributed across more than one planning area, plan development and management, assessments and monitoring for each planning area shall be coordinated to provide for viable populations of native and desired non-native species within each planning area. (2) Interagency coordination - to the maximum extent practicable and consistent with applicable law, the agency shall coordinate at the landscape level the management of planning areas with the management of the National Forest System, Public Lands, the National Wildlife Refuge System and National Park System, other Federal agencies, State fish and wildlife agencies, other State agencies with responsibility for management of natural resources, tribes, local governments, and non-governmental organizations engaged in species conservation in order to: (i) maintain viable populations of native and desired non-native species; (ii) develop strategies to address the impacts of global climate change on plant and animal communities; (iii) establish linkages between habitats and discrete populations; (iv) develop, where appropriate and practicable, joint resource management plans; and (v) conduct other joint efforts in support of maintaining viable populations of native and desired non-native species across jurisdictional boundaries (3) Coordination with conservation activities

Alternative A	Alternative D
	-In planning for the management of lands for the purpose of maintaining viable populations of native and desired non-native species within a planning area, the agency shall, to the maximum extent practicable and consistent with Federal law: (i) consult with and offer opportunities for participation to adjoining Federal, State, tribal, local, and private landowners, State and tribal fish and wildlife agencies, and other State and tribal agencies with responsibility for management of natural resources; and (ii) coordinate such management planning with relevant conservation plans for fish, plants, and wildlife and their habitats, including State comprehensive wildlife strategies and other State conservation strategies for species, National Fish Habitat partnerships, North American Wetland Conservation Joint Ventures, and the Federal-State-private partnership known as Partners in Flight.
§ 219.6 ASSESSMENTS.	
Assessments may range from narrow in scope to comprehensive, depending on the issue or set of issues to be evaluated, and should consider relevant ecological, economic, and social conditions, trends, and sustainability within the context of the broader landscape. The responsible official has the discretion to determine the scope, scale, and timing of an assessment, subject to the requirements of this section. (a) *Process for plan development or revision assessments*. One or more assessments must be conducted for the development of a new plan or for a plan revision. The responsible official shall: (1) Notify and encourage the public and	*[Provisions at § 219.6 through § 219.6(a)(5) are identical to Alternative A]*

Alternative A	Alternative D
appropriate Federal agencies, States, local governments, other entities, and scientists to participate in the assessment process (§§ 219.4 and 219.16). (2) Notify and encourage potentially interested or affected federally recognized Indian Tribes and Alaska Native Corporations to participate in the assessment process (§§ 219.4 and 219.16). (3) Coordinate with the regional forester, Agency staff from State and Private Forestry and Research and Development, and other governmental and non-governmental partners to consolidate existing information and leverage resources for additional information needs. (4) Document the assessment in a report or set of reports available to the public. Document in the report(s) how the relevant best available scientific information was taken into account (§ 219.3), and include the report(s) in the planning record (§ 219.14). (5) Identify in the report how a new plan should be proposed, or identify a potential need to change an existing plan, based on the assessment.	
(b) Content of assessments for plan development or revision. In the assessment(s) for plan development or revision, the responsible official shall: (1) Identify and evaluate information needed to understand and assess existing and potential future conditions and stressors in order to inform and develop required plan components and other content in the plan (§ 219.7), including plan components for sustainability (§ 219.8), diversity of plant and animal communities (§ 219.9), multiple uses (§ 219.10), and timber requirements based on NFMA (§ 219.11).	*[Provisions at § 219.6(b) through § 219.6(b)(5) are identical to Alternative A]*

Alternative A	Alternative D
(2) Identify and consider relevant information contained in governmental or non-governmental assessments, plans, monitoring evaluation reports, and studies, including relevant neighboring land management plans. Such documents may include State forest assessments and strategies, the Resources Planning Act assessment, ecoregional assessments, non-governmental reports, State comprehensive outdoor recreation plans, community wildfire protection plans, and State wildlife action plans. Relevant private information will be considered if voluntarily provided. (3) Identify the distinctive roles and contributions of the unit within the context of the broader landscape, considering the roles of the unit in providing multiple uses, including ecosystem services, from the NFS lands to the local area, region, and Nation. The unit's distinctive roles and contributions within the broader landscape are those for which the unit is best suited, considering the Agency mission, unique capabilities, and the resources and management of other lands in the vicinity. (4) Identify potential monitoring questions or information needs to inform the development or modification of the unit's monitoring program.	(6) Prepare watershed-scale assessments including an assessment of climate change vulnerability, using the best available science, to provide information on the ecological status – aquatic, riparian, and terrestrial – of watersheds within the planning unit. Managers will use information gathered during the watershed assessment to refine default Conservation Area boundaries and develop monitoring programs. (7) Identify key watersheds that are areas of highest quality habitat for native fish,

Alternative A	Alternative D
	amphibians, and for species of reptiles, mammals, and birds known to be highly dependent on aquatic habitats. (b) To provide the basis for complying with 219.9(a) the Secretary shall utilize the best available science to determine: (1) current and historic ecological conditions and trends, including the effects of global climate change; (2) ecological conditions required to support viable populations of native species and desired non-native species within the planning area; and (3) current and likely future viability of focal species within the planning area.
(c) *Plan amendment assessments*. (1) A plan amendment must be based on a documented need to change the plan. This documentation may be a new assessment; may be a monitoring report; or may be other documentation of new information, changed conditions, or changed circumstances. Where the responsible official determines that a new assessment is needed to inform the need for an amendment, the responsible official has the discretion to determine the scope, scale, process, and content for the assessment depending on the issue or issues to be addressed. (2) When a plan amendment is made together with, and only applies to, a project or activity decision, the analysis prepared for the project or activity may serve as the documented need to change the plan.	*[Provisions at § 219.6(c) are identical to Alternative A]*
§ 219.8 SUSTAINABILITY.	
Within Forest Service authority and consistent with the inherent capability of the plan area, the plan must provide for social, economic, and ecological sustainability, as	*[This provision at § 219.8 is identical to Alternative A]*

Alternative A	Alternative D
follows: (a) Ecological sustainability. (1) *Ecosystem plan components*. The plan must include plan components to maintain or restore the structure, function, composition, and connectivity of healthy and resilient terrestrial and aquatic ecosystems and watersheds in the plan area, taking into account: (i) Landscape-scale integration of terrestrial and aquatic ecosystems; (ii) Potential system drivers, stressors, and disturbance regimes, how they might affect ecosystem and watershed health and resilience, and the ability of those systems on the unit to adapt to change; (iii) Air quality; and (iv) Wildland fire and opportunities to restore fire adapted ecosystems.	*[The provisions at § 219.8(a) through § 219.8(a)(1)(iv) are identical to Alternative A]* (v) Key watersheds across the planning unit in order to establish a network that can serve as anchor points for the protection, maintenance, and restoration of broad scale processes and recovery of broadly distributed species; and— (vi) Spatial connectivity within or between watersheds, including lateral, longitudinal, and drainage network connections between floodplains, wetlands, upslope areas, headwater tributaries, and intact habitat refugia.
(2) Ecosystem elements. The plan must include plan components to maintain, protect, or restore: (i) Aquatic elements, such as lakes, streams, wetlands, stream banks, and shorelines; (ii) Terrestrial elements, such as forest stands, grasslands, meadows, and other	*[Provisions at § 219.8(a)(2) are identical to Alternative A]*

Alternative A	Alternative D
habitat types; (iii) Rare aquatic and terrestrial plant and animal communities, consistent with § 219.9; (iv) Public water supplies, sole source aquifers, source water protection areas, groundwater, and other bodies of water (includeing guidance to prevent or mitigate detrimental changes in quantity, quality, and availability, including temperature changes, blockages of water courses, and deposits of sediments); and (v) Soils and soil productivity (includeing guidance to reduce soil erosion and sedimentation). (3) *Riparian areas.* The plan must include plan components to maintain, protect, or restore riparian areas (RAs). Plans must establish a default width for riparian areas around all lakes, perennial or intermittent streams, and open water wetlands, within which these plan components will apply. The default may be a standard width for all lakes, perennial or intermittent streams, and open water wetlands, or may vary based on ecologic or geomorphic factors, or the type of waterbody. The default width will apply unless the actual riparian area for a waterbody or a site has been delineated based on best available scientific information.	(3) *Riparian areas.* Each plan must include standards and guidelines for— (i) Establishment of Riparian Conservation Areas based on the best available science. Until these riparian conservation areas are established, the minimum standard buffer for riparian conservation areas shall be no less than 100 feet on each side of the stream at bank-full flow, unless the stream has an intermittently or potentially shifting channel course, in which case the default buffer must start from the edge of the 200-year channel migration zone. (ii)Protection, maintenance, and restoration of Riparian Conservation areas, such that— (A) management activities within riparian conservation areas are primarily for restoration. (B) activities within riparian conservation areas that are not for restoration such as construction of new facilities (for example boat landings, road and trail crossings or campsites) must be designed using best available science to minimize impacts to the

Alternative A	Alternative D
	ecological function of the area. (4) *Watershed standards and guidelines.* Each plan must include standards and guidelines for— (i) Biological and biophysical connectivity of key watersheds across the planning unit. (ii) Road densities in key watersheds to achieve sediment reduction, minimized alteration of surface and subsurface flows, and connectivity of aquatic and riparian habitat. (iii) Maintenance and restoration of lakes, streams, wetlands, public water supplies, source water protection areas, groundwater, other bodies of water, instream flows, and thermal refugia, and protection of these resources from detrimental changes in quantity (subject to existing rights) and quality, including temperature, blockages of water courses, deposits of sediments (iv) Protection, maintenance, and restoration of a natural range of variability in sediment regime. Elements of the sediment regime include the timing, volume, rate, and character if sediment input, storage, and transport. (v) Sustaining soil productivity and preventing soil erosion and sedimentation. (vi) Road removal and remediation in riparian conservation areas and key watersheds as the top restoration priority (vii) A minimum necessary road systems as required by 36 CFR 212.5(b)(1) and (2).
(b) *Social and economic sustainability*. The plan must include plan components to guide the unit's contribution to social and economic sustainability, taking into account: (1) Social, cultural, and economic conditions	*[Provisions at § 219.8(b) are identical to Alternative A]*

Alternative A	Alternative D
relevant to the area influenced by the plan and the distinctive roles and contributions of the unit within the broader landscape; (2) Sustainable recreational opportunities and uses; (3) Multiple uses, including ecosystem services, that contribute to local, regional, and national economies in a sustainable manner; and (4) Cultural and historic resources and uses.	
§ 219.9 DIVERSITY OF PLANT AND ANIMAL COMMUNITIES	**219.9 SPECIES VIABILITY**
Within Forest Service authority and consistent with the inherent capability of the plan area, the plan must include plan components to maintain the diversity of plant and animal communities, as follows: (a) *Ecosystem Diversity*. The plan must include plan components to maintain or restore the structure, function, composition, and connectivity of healthy and resilient terrestrial and aquatic ecosystems and watersheds in the plan area, consistent with § 219.8(a), to maintain the diversity of native species. (b) *Species Conservation.* The plan components must provide for the maintenance or restoration of ecological conditions within the plan area to: (1) Contribute to the recovery of threatened and endangered species; (2) Conserve candidate species; and (3) Maintain viable populations of species of conservation concern within the plan area. Where it is beyond the authority of the Forest Service or the inherent capability of the plan area to do so, the plan components must	(a) *Management Direction.* The Secretary shall develop plans for and manage plan areas to provide viable populations of native and desired non-native species within the planning area, except that management for desired non-native species shall not interfere with the maintenance of viable populations of native species within a planning area. (b) *Extrinsic Conditions.* If the Secretary determines based upon the best available science and after providing notice to the public by publication in the Federal Register and opportunity for public comment for a period of at least 60 days, that conditions outside the authority of the Secretary make it impossible to comply with paragraph (a) of this section with respect to any species' population within the planning area, the agency shall: 1) to the maximum extent practicable provide for the viability of that population; and 2) ensure that any activity authorized, funded or carried out within the planning area does not increase the likelihood of extirpation of the population in such planning area.

Alternative A	Alternative D
provide for the maintenance or restoration of ecological conditions to contribute to the extent practicable to maintaining a viable population of a species within its range. When developing such plan components, the responsible official shall coordinate to the extent practicable with other Federal, State, tribal, and private land managers having management authority over lands where the population exists.	
(c) *Diversity of tree and other plant species.* The plan must include plan components to preserve, where appropriate, and to the degree practicable, the diversity of native tree and other native plant species similar to that existing in the plan area, as required by NFMA (16 U.S.C. 1604(g(3)(B)).	*[Provisions at § 219.9(c) are identical to Alternative A]*
§ 219.12 MONITORING.	
(a) *Unit monitoring program.* (1) The responsible official shall develop a unit monitoring program for the plan area, and include it in the plan. The development of the 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 unit monitoring programs.	*[Provisions at § 219.12(a)(1) through § 219.12(a)(5)(i) are identical to Alternative A]*
(2) The unit monitoring program sets out the unit monitoring questions and associated indicators. Monitoring questions and associated indicators must be designed to inform the management of resources on the unit, including by testing relevant assumptions, tracking relevant changes, and measuring management effectiveness and progress toward achieving or maintaining desired conditions or objectives. Questions and indicators should be based on one or more desired conditions, objectives, or other plan component in the plan, but not every	

Alternative A	Alternative D
plan component needs to have a corresponding monitoring question. (3) The unit 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 unit monitoring program, after considering: (i) Information needs identified through the planning process as most critical for informed management of resources on the unit; (ii) Existing best available scientific information; and (iii) Financial and technical capabilities of the Agency. (5) Each unit monitoring program must contain one or more monitoring questions or indicators addressing each of the following: (i) The status of select watershed conditions.	
(ii) The status of select ecological conditions.	(ii) The status and trends of ecological conditions within the planning area, including critical values for ecological conditions and focal species that trigger reviews of planning and management decisions to achieve compliance with 219.9(a);
(iii) The status of focal species;	Population surveys, of focal species using methods to assess the degree to which ecological conditions within the planning area are supporting a diversity of plant and animal communities within the planning area, such as presence/absence occupancy

Alternative A	Alternative D
	modeling, traditional count-based methods and genetic monitoring;
(iv) The status of visitor use and progress towards meeting recreational objectives.	*[Provisions at § 219.12(a)(5)(iv) through § 219.12(a)(5)(vii) are identical to Alternative A]*
(v) Measurable changes on the unit related to climate change and other stressors on the unit;	
(vi) The carbon stored in above ground vegetation;	
(vii) The progress towards fulfilling the unit's distinctive roles and contributions to ecologic, social, and economic conditions of the local area, region, and Nation.	
(viii) The effects of management systems to determine that they do not substantially and permanently impair the productivity of the land (16 U.S.C. 1604(g)(3)(C)).	
	(viii) The validity of the assessments developed under 219.6(b)
(6) A range of monitoring techniques may be used to carry out the monitoring requirements in paragraph (a)(5) of this section.	*[Provisions at § 219.12(a)(6) through § 219.12(a)(7) are identical to Alternative A]*
(7) This section does not apply to projects or activities; project and activity monitoring may be used to gather information, but monitoring is not a prerequisite for carrying out a project or activity.	
(b) *Broader-scale monitoring strategies.* (1) The regional forester shall develop a broader-scale monitoring strategy for unit monitoring questions that can best be answered at a geographic scale broader than one unit.	*[Provisions at § 219.12(b) are identical to Alternative A]*
(2) When developing a monitoring strategy, the regional forester shall coordinate with the relevant responsible officials, and Agency staff from State and Private Forestry, and	

Alternative A	Alternative D
Research and Development, partners, and the public. Two or more regional foresters may jointly develop broader-scale monitoring strategies. (3) Each regional forester shall ensure that the broader-scale monitoring strategy is within the financial and technical capabilities of the region and complements other ongoing monitoring efforts. (4) Projects and activities may be carried out under plans developed, amended, or revised under this part before the regional forester has developed a broad scale monitoring strategy.	
(c) *Timing and process for developing the unit monitoring program and broader-scale strategies.* (1) In the assessment phase, the responsible official shall work with the public to identify potential monitoring needs relevant to inform effective management (§ 219.6). (2) The responsible official shall develop the unit monitoring program as part of the planning process for a new plan development or plan revision. Where a unit's monitoring program has been developed under the provisions of a prior planning regulation and the unit has not initiated plan revision, the responsible official shall change the unit monitoring program within 4 years of the effective date of this part, or as soon as practicable, to meet the requirements of this section. (3) The regional forester shall develop a broader-scale monitoring strategy as soon as is practicable. (4) The responsible official and regional forester shall ensure that scientists are involved in the design and evaluation of unit and broad scale monitoring.	*[Provisions at § 219.12(c) are identical to Alternative A]*

Alternative A	Alternative D
(5) To the extent practicable, appropriate, and relevant to the monitoring questions in the program, unit 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 (iii) Opportunities to design and carry out monitoring with federally recognized Indian Tribes and Alaska Native Corporations.	
(d) *Biennial evaluation of the monitoring information*. (1) The responsible official shall conduct a biennial evaluation of new information gathered through the unit 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. The evaluation must indicate whether a change to the plan, management activities, or monitoring program may be warranted based on the new information; whether a new assessment should be conducted; or that no amendment, revision, or administrative change is needed. (i) The first monitoring evaluation for a plan or plan revision developed in accordance with this subpart must be completed no later than 2 years from the effective date of plan approval. (ii) Where the monitoring program developed under the provisions of a prior	*[Provisions at § 219.12(d) are identical to Alternative A]*

Alternative A	Alternative D
planning regulation has been changed to meet the requirements of paragraph (c)(2) of this section, the first monitoring evaluation must be completed no later than 2 years from the date the change takes effect. (iii) The monitoring evaluation report must describe how best available scientific information was taken into account (§ 219.3). (2) The monitoring evaluation report may be incorporated into other planning documents if the responsible official has initiated a plan revision or relevant amendment. (3) The monitoring evaluation report may be postponed for one year in case of exigencies, but notice of the postponement must be provided to the public prior to the date the report is due for that year (§ 219.16(c)(5)). (4) The monitoring evaluation report is not a decision document representing final agency action, and is not subject to the objection provisions of subpart B.	
§ 219.19 DEFINITIONS	
Definitions of the special terms used in this subpart are set out as follows. *Alaska native corporation*. One of the regional, urban, and village native corporations formed under the Alaska Native Claims Settlement Act of 1971. *Assessment.* A synthesis of information in support of land management planning to determine whether a change to the plan is needed. Assessments are not decisionmaking documents but provide current information on select issues. An assessment report on the need to change the plan may range from a many page broad scale comprehensive report to a one-page report, depending on the scope and scale of issues driving the need to	Definitions of the special terms used in this subpart are set out as follows. *[Only additional definitions or those that would differ from Alternative A are presented here. All other definitions in § 219.19 are identical to Alternative A]*

Alternative A	Alternative D
change. *Collaboration.* A structured manner in which a collection of people with diverse interests share knowledge, ideas, and resources while working together in an inclusive and cooperative manner towards a common purpose. Collaboration, in the context of this part, falls within the full spectrum of public engagement described in the Council on Environmental Quality's publication: Collaboration in NEPA—A Handbook for NEPA Practitioners. The Forest Service retains decisionmaking authority and responsibility for all decisions throughout the process. *Connectivity*. Pertaining to the extent to which conditions exist or should be provided between separate national forest or grassland areas to ensure habitat for breeding, feeding, or movement of wildlife and fish within their home range or migration areas. *Conservation*. The protection, preservation, management, or restoration of natural environments and ecological communities. *Culmination of mean annual increment of growth.* See mean annual increment of growth. *Designated areas*. Areas or features within a planning unit with specific management direction that are normally established through a process separate from the land management planning process. Designations may be made by statute or by an administrative process of the Federal executive branch. The Forest Service Directive System contains policy for recognition and establishment of designations. Designated areas include experimental forests, national heritage areas, national monuments, national recreational areas, national scenic trails, research natural areas, scenic byways, wild and scenic rivers,	

Alternative A	Alternative D
wilderness areas, and wilderness study areas.	
	Desired non-native species. Those wild species of plants or animals that are not indigenous to a planning area but are valued for their contribution to species diversity or their social, cultural, or economic value.
Disturbance. Any relatively discrete event in time that disrupts ecosystem, watershed, community, or species population structure and/or function and changes resources, substrate availability, or the physical environment.	
Ecological conditions. The biological and physical environment that can affect diversity of plant and animal communities and the productive capacity of ecological systems. Examples of ecological conditions include the abundance and distribution of aquatic and terrestrial habitats, connectivity, roads and other structural developments, human uses, and invasive species.	*Ecological Conditions.* Elements of the biological and physical environment that can affect species viability, including the historical range of diversity of ecological systems within a planning area, the abundance and distribution of aquatic and terrestrial habitats, roads and other structural developments, human uses, and invasive and exotic species.
Ecological system. See ecosystem.	
Economic system. The system of production, distribution, and consumption of goods and services including consideration of jobs and income.	
Ecosystem. A spatially explicit, relatively homogeneous unit of the Earth that includes all interacting organisms and elements of the abiotic environment within its boundaries. An ecosystem is commonly described in terms of its: (1) Composition. Major vegetation types, rare communities, aquatic systems, and riparian systems. (2) Structure. Vertical and horizontal distribution of vegetation, stream habitat complexity, and riparian habitat elements. (3) Function. Ecological processes such as stream flows, nutrient cycling, and disturbance regimes. (4) Connectivity. Habitats that exist for breeding, feeding, or movement of wildlife	

Alternative A	Alternative D
and fish within species home ranges or migration areas. *Ecosystem diversity*. The variety and relative extent of ecosystem types, including their composition, structure, and processes. *Ecosystem services*. Benefits people obtain from ecosystems, including: (1) Provisioning services, such as clean air and fresh water, as well as energy, fuel, forage, fiber, and minerals; (2) Regulating services, such as long term storage of carbon; climate regulation; water filtration, purification, and storage; soil stabilization; flood control; and disease regulation; (3) Supporting services, such as pollination, seed dispersal, soil formation, and nutrient cycling; and (4) Cultural services, such as educational, esthetic, spiritual, and cultural heritage values, as well as recreational experiences and tourism opportunities. *Environmental assessment* (*EA*). See definition in § 219.62. *Environmental document*. Includes an environmental assessment, environmental impact statement, finding of no significant impact, categorical exclusion, and notice of intent to prepare an environmental impact statement. *Environmental impact statement.* See definition in § 219.62. *Even-aged stand.* A stand of trees composed of a single age class. *Federally recognized Indian Tribe.* An Indian or Alaska Native Tribe, band, nation, pueblo, village, or community that the Secretary of the Interior acknowledges to exist as an Indian Tribe under the Federally Recognized Indian Tribe List Act of 1994, 25 U.S.C. 479a.	

Alternative A	Alternative D
Focal species. A small number of species selected for monitoring whose status is likely to be responsive to changes in ecological conditions and effects of management. Monitoring the status of focal species is one of many ways to gauge progress towards achieving desired conditions in the plan.	*Focal species.* Species selected, based on the best available science, for assessment and monitoring because their population status and trends are likely to be responsive to changes in eco1ogica1 conditions, and provide reliable and meaningful information regarding the effectiveness of planning and management decisions in maintaining a diversity of plant and animal communities within the planning area. A species-at-risk also may be selected as a focal species.
Forest land. Land at least 10 percent occupied by forest trees of any size or formerly having had such tree cover and not currently developed for non-forest uses. Lands developed for non-forest use include areas for crops; improved pasture; residential or administrative areas; improved roads of any width and adjoining road clearing; and power line clearings of any width.	
Geographic area. A spatially contiguous land area identified within the planning. A geographic area may overlap with a management area.	
Health(y). The degree of ecological integrity that is related to the completeness or wholeness of the composition, structure, and function of native ecosystems existing within the inherent capability of the land.	
Independent peer review. The process of subjecting an author's document using accepted practices to the scrutiny of others who are experts in the same field, before the document is published. A peer is a person who has substantially equal knowledge and standing in relation to the author.	
Landscape. A spatial mosaic of terrestrial and aquatic ecosystems, landforms, and plant communities across a defined area irrespective of ownership or other artificial boundaries and repeated in similar form	

Alternative A	Alternative D
throughout. *Landscape character*. A combination of physical, biological, and cultural images that gives an area its visual and cultural identity and helps to define a "sense of place." Landscape character provides a frame of reference from which to determine scenic attractiveness and to measure scenic integrity. *Management area*. A land area identified within the planning unit that has the same set of applicable plan components. A management area does not have to be spatially contiguous. *Mean annual increment of growth and culmination of mean annual increment of growth*. Mean annual increment of growth is the total increment of increase of volume of a stand (standing crop plus thinnings) up to a given age divided by that age. Culmination of mean annual increment of growth is the age in the growth cycle of an even-aged stand at which the average annual rate of increase of volume is at a maximum. In land management plans, mean annual increment is expressed in cubic measure and is based on the expected growth of stands, according to intensities and utilization guidelines in the plan. *Monitoring*. A systematic process of collecting information over time and space to evaluate effects of actions or changes in conditions or relationships. *Multiple use*. The management of all the various renewable surface resources of the NFS so they are used in the combination that will best meet the needs of the American people: making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in the use to conform to	

Alternative A	Alternative D
changing needs and conditions; recognizing that some lands will be used for less than all of the resources; and providing for harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output, consistent with the Multiple-Use Sustained-Yield Act of 1960 (16 U.S.C. 528–531). Ecosystem services are included as part of all the various renewable surface resources of the NFS. *National Forest System land*. See definition in § 219.62. *Native knowledge*. A way of knowing or understanding the world, including traditional ecological and social knowledge of the environment derived from multiple generations of indigenous peoples' interactions, observations, and experiences with their ecological systems. Native knowledge is place-based and culture-based knowledge in which people learn to live in and adapt to their own environment through interactions, observations, and experiences with their ecological system. This knowledge is generally not solely gained, developed by, or retained by individuals, but is rather accumulated over successive generations and is expressed through oral traditions, ceremonies, stories, dances, songs, art, and other means within a cultural context. *Newspaper(s) of record*. See definition in § 219.62. *Objection*. See definition in § 219.62. *Online*. See definition in § 219.62. *Participation*. Activities that include a wide range of public involvement tools and	

Alternative A	Alternative D
processes, such as collaboration, public meetings, open houses, workshops, and comment periods. *Plan or land management plan*. A document or set of documents that describe management direction for an administrative unit of the NFS. *Plan area*. The National Forest System lands covered by a plan *Plant and animal communities*. A naturally occurring assemblage of plant and animal species living within a defined area or habitat. *Potential wilderness areas*. All areas within the National Forest System lands that satisfy the definition of wilderness found in section 2(c) of the 1964 Wilderness Act. Inventory criteria are listed in Forest Service Handbook 1909.12 – Land Management Planning Handbook, Chapter 70 – Wilderness Evaluation. *Productivity*. The capacity of National Forest System lands and their ecological systems to provide the various renewable resources in certain amounts in perpetuity. For the purposes of this subpart, productivity is an ecological, not an economic, term. *Project*. An organized effort to achieve an outcome on NFS lands identified by location, tasks, outputs, effects, times, and responsibilities for execution.	*Planning Area.* The geographic area of National Forest System lands covered by an individual land and resource management plan. The planning area may include one or more administrative units. *Plan and Management Decisions*. Includes but is not limited to: desired ecological conditions; objectives; designation of management areas; standards; suitability determinations; monitoring plans; and special area designations.

Alternative A	Alternative D
Recreational setting. The surroundings or the environment for the recreational activities. The Forest Service uses the recreational opportunity spectrum that defines six recreational opportunity classes that provide different settings for recreational use: primitive, semi-primitive nonmotorized, semi-primitive motorized, roaded natural, rural, and urban. *Resilience*. The capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity, and feedbacks. *Responsible official*. See definition in § 219.62. *Restoration*. The process of assisting the recovery of resilience and the capacity of a system to adapt to change if the environment where the system exists has been degraded, damaged, or destroyed. Ecological restoration focuses on reestablishing ecosystem functions by modifying or managing the composition, structure, arrangement, and processes necessary to make terrestrial and aquatic ecosystems sustainable, and resilient under current and future conditions. *Riparian areas*. A transition area between the aquatic ecosystem and the adjacent terrestrial ecosystem that is geographically delineable with distinctive resource values and characteristics; identified by soil characteristics or distinctive vegetation communities that require free or unbound water. *Risk*. A combination of the likelihood that a negative outcome will occur and the severity of the subsequent negative consequences. *Sole Source aquifer*. A porous geologic formation, usually consisting of sand and	

Alternative A	Alternative D
gravel, that holds ground water, and designated by the Environmental Protection Agency because it supplies at least 50 percent of the drinking water consumed in the area overlying the aquifer, and where contamination would present both a significant public health hazard and an economic hardship in the high cost of replacing the contaminated water. *Source water protection areas*. The area delineated by a State or Tribe for a public water system (PWS) or including numerous PWSs, whether the source is ground water or surface water or both, as part of a State or tribal source water assessment and protection program (SWAP) approved by Environmental Protection Agency under section 1453 of the Safe Drinking Water Act.	
	Species-at-risk. Federally listed endangered, threatened, candidate, and proposed species and other species for which loss of viability, including reduction in distribution or abundance, is a concern within the plan area. Other species-at-risk may include sensitive species and state listed species.
Species of conservation concern. Species other than federally listed threatened or endangered species or candidate species, for which the responsible official has determined that there is evidence demonstrating significant concern about its capability to persist over the long-term in the plan area. *Sustainability*. Capability of meeting the needs of the present generation without compromising the ability of future generations to meet their needs. *Sustainable recreation*. The set of recreational opportunities, uses and access that, individually and combined, are ecologically, economically, and socially sustainable, allowing the responsible official to offer recreation opportunities now and into	

Alternative A	Alternative D
the future. Recreational opportunities can include non-motorized, motorized, developed, and dispersed recreation on land, water, and air. *System drivers*. Natural or human-induced factors that directly or indirectly cause a change in an ecosystem, such as climate change, habitat change, or non-native invasive species, human population change, economic activity, or technology. *Timber harvest*. The removal of trees for wood fiber use and other multiple-use purposes. *Timber production*. The purposeful growing, tending, harvesting, and regeneration of regulated crops of trees to be cut into logs, bolts, or other round sections for industrial or consumer use.	
	Viability Analysis. The process of evaluating the current state and likely future status of a species, based on information on trends in its abundance, density, or geographic distribution.
Viable population. A population of a species that continues to persist over the long term with sufficient distribution to be resilient and adaptable to stressors and likely future environments.	*Viable Population.* A population that has a high likelihood of persisting well distributed throughout its range within a planning area for a period of at least 50 years into the future, based on the best available scientific information on its ecological conditions, abundance, distribution, reproduction, and survival rates.
Watershed. A region or land area drained by a single stream, river, or drainage network; a drainage basin. *Watershed condition*. The state of a watershed based on physical and biogeochemical characteristics and processes. *Wild and scenic river.* A river designated by Congress as part of the National Wild and	

Alternative A	Alternative D
Scenic Rivers System that was established in the Wild and Scenic Rivers Act of 1968 (16 U.S.C. 1271(note), 1271-1287). *Wilderness*. Any area of land designated by Congress as part of the National Wilderness Preservation System that was established in the Wilderness Act of 1964 (16 U.S.C. 1131-1136).	