

Chapter II

Forest-wide Management Direction

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Updates to Chapter II Since 2006

Page II-1, Introduction; paragraph 1, sentence 2 – Changed the word “chapter” to “Forest Plan” to clarify that all direction in the plan applies only to NFS lands.

Page II-4, Legal and Administrative Framework; paragraph 5, sentence 1 – Changed the “Northeastern Research Station” to “Northern Research Station” to reflect their recent name change.

Page II-4, Definitions; page II-4, paragraph 1 – Corrected the typo “There” to “The”.

Page II-6, Forest Integrated Desired Conditions, paragraph 2, bullet statement 2: Changed statement to include both disturbances and changes, including climate change.

Page II-6, Forest Integrated Desired Conditions, paragraph 3, bullet statement 1: Added “carbon sequestration” to the list of desired conditions.

Page II-7, Forest Integrated Desired Conditions: Added a bullet statement on desired conditions for responding to climate change.

Forest-wide Management Direction – We made a number of minor corrections, clarifications, and additions to this section. They are summarized below. For more detailed information, you may request a copy of the Forest Plan correction(s) from the Forest or visit <http://www.fs.usda.gov/mnf>.

- **Page II-9, Goal SW02, part d):** Deleted the word “on” to correct this typo.
- **Page II-12, Standard SW36:** Replaced the typo “bands” with “streambanks”.
- **Page II-15, Goal FM03:** Corrected the typo “communties” to “communities”.
- **Page II-20, Guideline VE23:** Changed the wording for clarification and accuracy.
- **Page II-20, Standard VE33:** Changed the wording for clarification and accuracy.
- **Page II-26, Standards TE60, TE61, and TE62:** Moved these standards to page II-31 to reflect the de-listing of the bald eagle, which is no longer a TEP species.
- **Page II-30, Objectives WFO7 and WFO8:** Corrected WFO7 to WF07 and WFO8 to WF08.
- **Page II-30, Standard WF14:** Changed the wording for clarification and accuracy.
- **Page II-31:** Added bald eagle Standards TE60, TE61, and TE62 to the Wildlife and Fish section as Standards WF25, WF26, and WF27, respectively, due to delisting.
- **Page II-34, Recreation links:** Deleted the link to TE61, and added a link to WF26 for accuracy.
- **Page II-38, Goal HR01, part c):** Corrected the typo “ther” to “the”.
- **Page II-40, Desired Conditions, paragraph 2:** Deleted the word “in” for clarification.
- **Page II-53, Special Uses links:** Corrected, added, or deleted several links for accuracy.

INTRODUCTION

This chapter describes Forest-wide management direction for the Forest that will guide Forest personnel to achieve desired outcomes and conditions for both land stewardship and public service. The management direction in this Forest Plan applies to National Forest System (NFS) lands within the proclaimed boundary and purchase units of the Monongahela National Forest. The Forest-wide Management Direction section provides general direction for all Forest resources and the foundation for more specific direction at the Management Prescription (MP) level in Chapter III.

It is important to note that the Forest Plan direction found in this chapter does not implement any management activities, but rather provides the context for future implementation. When and if project implementation occurs, the Forest will disclose and analyze the proposed activities and their potential effects, using the National Environmental Policy Act process. This process will include public involvement and provide the Forest decision-maker with a range of alternatives and effects from which to choose management options. During project implementation, the Forest may apply additional mitigation measures not described in this Forest Plan to further reduce potential effects from proposed activities where appropriate.

LEGAL AND ADMINISTRATIVE FRAMEWORK

Law, Regulation, and Policy - As a federal land management agency, the Forest Service must follow all applicable federal, state, and local laws and regulations. If these laws change or are amended, or if new laws are enacted, the Forest administration will comply with the changes or additions. The same situation applies to executive orders and to agency policy, as expressed in Forest Service Manual (FSM) and Handbook (FSH) directives. This direction is mandatory and does not need to be restated in the Forest Plan. Wherever the laws, regulations, or policies have more stringent requirements than Forest Plan direction, the Forest must and will comply with those requirements. Some of the more well-known federal laws the Forest must follow include:

National Environmental Policy Act (1969)	National Forest Management Act (1976)
Clean Water Act (1948) and Amendments	Clean Air Act (1955) and Amendments
Multiple Use Sustained Yield Act (1960)	Wilderness Act (1964)
National Forest Roads and Trails Act (1964)	National Historic Preservation Act (1966)
Archeological Resources Protection Act (1979)	Endangered Species Act (1973)
Forest and Rangeland Renewable Resources Act (1974)	
Federal Onshore Oil and Gas Leasing Reform Act (1987)	
Surface Mining Control and Reclamation Act (1977)	

Outstanding and Reserved Rights – Laws and regulations, including those noted above, incorporate a number of outstanding or reserved rights, such as the entitlement to access and develop a deeded mineral right. These rights will be honored by the Forest, even though they are not explicitly listed as exceptions to the development restrictions that appear in some of the Forest-wide and Management Prescription standards and guidelines. The Forest cannot usurp these rights unless claimants or property owners are willing to negotiate for just compensation.

Forest Service Directives - Existing administrative policy, procedure, and guidance to Forest Service employees issued through the Forest Service Directive System are not typically duplicated in this plan. Directive sources (FSM and FSH) are cited at the beginning of each resource section to provide Forest managers with references for further guidance to the resource areas. These directive references are not to be construed as additional Forest Plan direction, but rather they are links to important direction in addition to the Plan.

In addition to the laws, regulation, and policies described above, the Forest also complies with direction from a number of other official sources, such as approved Conservation Strategies or Agreements, terms and conditions from Biological Opinions, State Best Management Practices, State Total Maximum Daily Load requirements, Memoranda Of Understanding, Memoranda Of Agreement, and various interagency protocols. This direction may be cited, but does not need to be repeated in the Forest Plan.

State Best Management Practices (BMPs) - State BMPs have been designed to provide protection to soil, water, and other natural resources throughout West Virginia. These BMPs are updated periodically to address changes in conditions, concerns, or scientific findings. Although the Forest is not legally required to follow State BMPs, it is our intent to have management direction in place that meets or exceeds the natural resource protection provided by State practices. This Forest Plan reflects that intent, and the Plan can be adjusted so that it continues to meet or exceed BMP protection in the future.

CONSULTATION, COOPERATION, AND COORDINATION

The Forest consults, cooperates, and coordinates with many agencies and organizations for a variety of reasons. Some of these activities are mandatory requirements, and some are the result of agreements to help improve management efficiency or reduce potential conflicts. If these requirements or agreements change, the Forest will comply with, or adapt to, the changes as needed. The Forest considers these consultation, cooperation, and coordination activities as standard operating procedure, and therefore they are generally not restated as direction in the Forest Plan. Some of these activities include:

TEP Species - Although all Threatened, Endangered, or Proposed (TEP) species on the Forest may not be individually addressed in the Forest Plan management direction, the Forest is obligated to provide sufficient habitat to contribute to their survival and recovery. This obligation is spelled out in more detail in the Endangered Species Act, FSM and FSH direction, and various recovery plans, conservation strategies and agreements, and MOUs. In addition, the Forest consults with the U.S. Fish and Wildlife Service at the project level for proposed actions that may affect these species or their habitats.

Wildlife and Fish – The Forest coordinates with West Virginia Division of Natural Resources (WVDNR) on a variety of activities or uses that may affect species or their habitats to maintain sustainable wildlife and fish populations on the Forest.

Cultural Resources – The Forest consults with the State Historic Preservation Office and the Advisory Council on Historic Preservation as needed on actions that may affect cultural resources. The Forest also consults with appropriate parties when American Indian human remains or associated funerary objects are discovered.

Air Quality – The Forest coordinates with air quality regulatory authorities on impacts of air pollution on National Forest resources, and practices to control emissions resulting from Forest management activities.

Soils - The Forest cooperates with the Forest Service Research and State and Private Forestry, the Natural Resources Conservation Service - Soil Survey Division, the West Virginia University Extension Service through the National Cooperative Soil Survey, and many other universities to pool soil resource management expertise and to promote sound soil interpretations used for determining effects on soils.

Law Enforcement – The Forest cooperates with the Federal Magistrate System and local, state, and federal law enforcement agencies to facilitate enforcement of laws and regulations.

Minerals - The Forest cooperates with the Office of Surface Mining, Bureau of Land Management, U.S. Geological Survey, U.S. Mine Safety and Health Administration, West Virginia Department of Environmental Protection, and U.S. Environmental Protection Agency in administering mining, oil and gas and mineral leasing laws and in solving problems resulting from past and present minerals operations.

Range - The Forest Service cooperates with Forest Service Research and State and Private Forestry offices, the Natural Resources Conservation Service, the West Virginia University (WVU) Extension Service, WVDNR, and the West Virginia Department of Agriculture to pool management expertise and promote sound range management practices

Timber - The Forest cooperates with Forest Service Research and State and Private Forestry offices, WVU Extension Service, West Virginia Forestry Association, West Virginia Department of Agriculture, West Virginia Division of Forestry, and the other professional foresters to pool management expertise and promote sound timber management practices.

Rare Plants/Communities - The Forest coordinates with the West Virginia Natural Heritage Program, The Nature Conservancy, and other non-governmental organizations on rare plants and communities.

Non-Native Invasive Species - The Forest cooperates with federal agencies, WVDNR and West Virginia DOH, county extension agents, and private individuals in establishing strategic priorities, and locating and treating non-native invasive species.

Integrated Pest Management - The Forest coordinates insect and disease monitoring and suppression activities with Forest Service Research, State and Private Forestry offices, West Virginia Department of Agriculture Pesticide Division, WVDNR, WVU, and affected landowners.

Fire - The Forest cooperates with West Virginia Division of Forestry and local fire departments to protect NFS lands and adjacent land ownerships from wildfire.

The National Radio Astronomy Observatory (NRAO) - The Forest coordinates with the NRAO on any application for special use permit located within the NRAO Quiet Zone, and on activities within one mile of the NRAO sites that might produce incidental radio emission.

Search and Rescue – The Forest cooperates with state and local authorities, who bear the primary responsibility for search and rescue. In those cases where state and local officials have not had time to organize and act, the Forest Service may initiate search and rescue operations to reduce suffering and to save lives.

Highland Scenic Highway - The Forest cooperates with the Federal Highway Administration, West Virginia Department of Highways, and other agencies in the improvement, operation, and management of the Highland Scenic Highway, including law enforcement and traffic regulation.

Research – The Forest consults and coordinates with the USDA Northern Research Station, universities, and other state and federal agencies to conduct research into Forest management activities and impacts, develop and improve management techniques, and apply the best scientific information and technology to management practices.

DEFINITIONS

The five types of direction used for the Forest resource programs—desired conditions, goals, objectives, standards, and guidelines—are described in detail, below.

Desired Conditions are descriptions of how Forest resources should look and function to provide diverse and sustainable habitats, settings, goods, and services. Taken together, the desired conditions should present an integrated vision of a properly functioning Forest that supports a broad range of biological diversity and social and economic opportunity.

Goals are statements that help describe desired conditions, or how to achieve those conditions. Goals are designed to maintain conditions if they are currently within their desired range, or move conditions toward their desired range if they are currently outside that range. Goals are normally expressed in general terms that are timeless, and there are no specific dates by which they must be achieved. Goal statements form the basis from which objectives are developed.

Objectives are concise time-specific statements of actions or results designed to help achieve goals. Objectives form the basis for project-level actions or proposals to help achieve Forest goals. Like goals, objectives are designed to maintain conditions if they are currently within their desired range, or move conditions toward their desired range if they are currently outside that range. The timeframe for accomplishing objectives, unless otherwise stated, is generally considered to be the planning period, or the next 10 to 15 years. More specific dates are not typically used because accomplishment can be delayed by funding, litigation, environmental changes, and other influences beyond the Forest's control.

Standards are binding limitations placed on management actions. Standards are typically action restrictions designed to prevent degradation of resource conditions, or exceeding a threshold of unacceptable effects, so that conditions can be maintained or restored over time. However, exceptions are made in some cases to allow temporary or short-term effects in order to achieve long-term goals. Standards must be within the authority and ability of the Forest Service to enforce. A project or action that varies from a relevant standard may not be authorized unless the Forest Plan is amended to modify, remove, or waive its application.

Guidelines represent a preferred or advisable course of action generally expected to be carried out. They can also describe limitations on management actions, but they are generally not as restrictive as standards. Guidelines often indicate measures that should be taken to help maintain or restore resource conditions, or prevent resource degradation. Deviation from compliance does not require a Forest Plan amendment (as with a standard), but rationale for deviation is required in the project record or NEPA documentation for a signed decision.

TIMEFRAMES

As noted above, management objectives in this Plan are generally designed to be achieved within the planning period (the next 10 to 15 years), unless otherwise stated. Similarly, standards and guidelines are expected to apply for the planning period, although there may be deviations, as explained in the definitions above. In addition, the Continuous Assessment and Planning process, under which this Plan was developed, will allow the Plan to adapt through time. If, for instance, monitoring shows that a certain standard is not working, or that a new guideline is needed, changes can be made during the planning period with Forest Plan amendments.

Desired conditions and goals are more timeless in nature. For certain resources, the desired conditions may already exist, in which case both the short-term and long-term goal may be to maintain those conditions over time. In other cases, there may be short-term impediments to achieving desired conditions, but the long-term goal is to move resources toward those conditions. One example would be a desired condition of having a greater amount of large trees and snags in specific vegetation types. The Forest can retain existing large trees over the short-term planning period, but to achieve the desired condition of more trees may take much longer due to the extended time needed for trees to grow to a large size.

MANAGEMENT DIRECTION AND INTEGRATION

Although the Forest-wide management direction is presented by individual resource area for efficient reference and retrieval, this direction has been integrated across resource areas. Direction in one resource area is linked to related direction in other resource areas where appropriate. General and integrated desired conditions for the Forest are presented below, followed by management direction for individual resource or program areas.

Forest Integrated Desired Conditions

The desired condition for the Forest is to care for the land and serve people through the maintenance and restoration of productive and sustainable ecosystems. The Forest continues to cooperate, coordinate, and consult with a variety of agencies, organizations, and government entities to achieve mutual benefits from Forest resource management. The Forest features a broad array of landscapes and opportunities, from wilderness areas where natural conditions predominate, to concentrated development areas where conditions have been highly altered to meet specific resource needs or concerns. Specific uses, practices, or activities on the Forest are adjusted as needed to reduce impacts to natural resources or to reduce conflicts between users.

Ecosystems on the Forest:

- Have ecological and watershed integrity, meaning they have a viable combination of all the diverse elements and processes needed to sustain systems and to perform desired functions,
- Are dynamic in nature and resilient to natural and man-caused disturbances and changes, including climate change,
- Have a range of vegetative composition and structure that provide habitat for native and desired non-native plant, wildlife, and aquatic species, and
- Are managed in an environment of public and interagency trust, and cultural and socio-economic sustainability.

Ecosystems have the following physical, biological, social, and economic components and conditions:

- Soils are productive and in a condition that promotes vegetative growth, hydrologic function, long-term nutrient cycling, erosional stability, and carbon sequestration. Streams and lakes provide clean water, appropriate temperatures, and a variety of connected habitats to support native and desired non-native aquatic species.
- Terrestrial and aquatic communities are within desired conditions for composition, structure, patterns, and processes. Vegetation forms a diverse network of habitats and connective corridors for wildlife, and provides snags, coarse woody material, and soil organic matter.
- Habitats support species diversity, with emphasis on maintaining or restoring populations of game and non-game wildlife and fish; TEP and sensitive species; and rare plant communities. Riparian areas connect upland and aquatic habitats, and promote stable and diverse stream channel conditions. Existing non-native invasive species populations are not expanding and new invader species are not becoming established.
- Fire is used to manage vegetation where needed to enhance ecosystem resiliency in fire-adapted communities and lower hazardous fuel levels.

- Recreational settings range from semi-primitive to developed, offering a wide spectrum of opportunities and uses. Facilities--such as roads, trails, campgrounds, and administrative sites--are constructed, reconstructed, or eliminated as needed to provide a balance of safe, effective, and environmentally responsible recreational opportunities. Visitors enjoy a variety of special attractions, including the National Recreation Area, Wilderness, Scenic Areas, The Highland Scenic Highway, recreational complexes, historic landmarks, and Botanical Areas. People have the opportunity to explore and learn about cultural heritage. Significant cultural sites are preserved and accessible.
- Forest ecosystems provide a variety of sustainable products and services for current and future generations. Timber, range, wildlife, water, recreation, minerals, and special use programs offer opportunities for economic development, and contribute to local community needs, while maintaining ecological integrity.
- The Forest continues to provide a positive response to climate change by growing trees that absorb carbon dioxide and produce oxygen, by storing carbon in above-ground vegetation and below-ground roots and soil nutrients, and by promoting sustainable operations that conserve resources and reduce our environmental imprint.



Sites Homestead – Near Seneca Rocks

Air Quality

Forest Service Manual and Handbook management direction for air quality is in FSM 2500 - Watershed and Air Management.

DESIRED CONDITIONS

Visitors to the Forest have the opportunity to experience clean air and clear vistas in a natural setting, while recognizing that the region is affected by human-caused pollution, predominantly from sources external to Forest boundaries. Ambient air quality across the Forest meets or exceeds all applicable state and federal standards, while visibility and deposition monitoring data show continued decreasing trends in sulfates.

Management Direction for Air Quality		
Type	Number	Direction Description
Goal	AQ01	Improve and maintain air quality and Air Quality Related Values (AQRVs) through a cooperative working relationship with agencies managing air quality, while achieving management goals and objectives. a) Review, evaluate, and provide recommendations on Prevention of Significant Deterioration (PSD) permits that may affect current class I area AQRVs. b) Provide comments to air quality agencies on regulatory efforts that impact air quality in Dolly Sods and Otter Creek class I areas. c) Participate in regional planning organizations and efforts that are examining ways to reduce impacts to visibility and other AQRVs in Class I areas of the region.
Objective	AQ02	Reduce air pollution impacts to the Air Quality Related Values (AQRVs) of the class I areas on the Forest to improve AQRV conditions over current adversely affected levels.
Standard	AQ03	Use screening procedures specific to Dolly Sods and Otter Creek Wildernesses and federal land manager AQRV guidance when reviewing Prevention of Significant Deterioration (PSD) permits.
Standard	AQ04	Conduct management activities (including permitted activities) in a manner that does not result in a significant contribution to a violation of National Ambient Air Quality Standards, a violation of applicable provisions in the State Implementation Plan, or an adverse impact to AQRVs in Dolly Sods and Otter Creek Wildernesses.
<i>See also Fire Management Goal FM08 and Standards FM12, FM14, FM15, FM16. Additional management direction for Class I areas can be found in the Air Quality section of Management Prescription 5.0 – Designated Wilderness - in Chapter III.</i>		

Soil and Water Resources

Forest Service Manual and Handbook management direction for soil and water resources is in FSM 2500 - Watershed and Air Management, and FSM 3500 - Cooperative Watershed Management; and in FSH 2500, 2509.13 - Burned-Area Emergency Rehabilitation, FSH 2509.18 - Soil Management, and FSH 2509.22 - Soil and Water Conservation.

DESIRED CONDITIONS

Soil protective cover, soil organic matter, and coarse woody material are at levels that maintain the natural infiltration capacity, moisture regime, and productivity of the soil. Soils also have adequate physical, biological, and chemical properties to support desired vegetation growth. Exposed mineral soil and soil compaction from human activity may be present but are dispersed and do not impair the productivity and fertility of the soil.

Wetlands and floodplains function as detention/retention storage areas for floodwaters, sources of organic matter, and habitat for aquatic and riparian species. Improving watershed conditions contribute to the de-listing of water quality limited water bodies to meet Clean Water Act requirements and state water quality management rules. Stream channel and bank stability is protected during management activities.

Streams are in dynamic equilibrium; that is, stream systems normally function within natural ranges of flow, sediment movement, temperature, and other variables that provide for healthy aquatic systems. The physical integrity of aquatic systems, stream banks, channel substrates and other habitat components are intact and stable. Where channel shape is modified (e.g., road crossings), the modification preserves channel stability and function. Streamside vegetation contributes to the protection and maintenance of water quality, water quantity, nutrient inputs, and physical channel integrity to support channel function, aquatic biota, aquatic and wildlife habitat, floodplain function, aesthetic values and designated uses.

Management Direction for Soil and Water		
Type	Number	Direction Description
Soils		
Goal	SW01	Maintain, restore, or improve soil quality, productivity, and function. Manage soil disturbances from management activities such that they do not result in long-term loss of inherent soil quality and function.
Goal	SW02	Collect, interpret, and display information on Forest soils to: <ul style="list-style-type: none"> a) Determine the kinds and intensities of soil resource inventories needed, b) Identify relationships between soil types and the growth of trees or other vegetation, c) Predict effects to soil and water resources caused by various management options applied to specific tracts of land, d) Provide information to aid in multiple-use management that does not impair the productivity of the land, and e) Identify limitations on management practices and mitigation measures by soil mapping unit for activities that have potential to impact soil and water resources.

Management Direction for Soil and Water		
Type	Number	Direction Description
Standard	SW03	Disturbed soils dedicated to growing vegetation shall be rehabilitated by fertilizing, liming, seeding, mulching, or constructing structural measures as soon as possible, but generally within 2 weeks after project completion, or prior to periods of inactivity, or as specified in contracts. Rip compacted sites when needed for vegetative re-establishment and recovery of soil productivity and hydrologic function. The intent is to minimize the time that soil is exposed on disturbed sites or retained in an impaired condition.
Standard	SW04	Erosion prevention and control measures shall be used in program and project plans for activities that may reduce soil productivity or cause erosion.
Standard	SW05	Maintain at least 85 percent of a vegetation management activity area in a non-detrimentally disturbed condition. Existing system roads and trails, and other administrative facilities within the activity area, are not considered detrimentally disturbed conditions when assessing compliance with this standard.
Standard	SW06	Severe rutting resulting from management activities shall be confined to less than 5 percent of an activity area.
Standard	SW07	Use of wheeled and/or tracked motorized equipment may be limited on soil types that include the following soil/site area conditions: a) <u>Steep Slopes (40 to 50 percent)</u> – Operation on these slopes shall be analyzed on a case-by-case basis to determine the best method of operation while maintaining soil stability and productivity. b) <u>Very Steep Slopes (more than 50 percent)</u> – Use is prohibited without recommendations from interdisciplinary team review and line officer approval. c) <u>Susceptible to Landslides</u> – Use on slopes greater than 15 percent with soils susceptible to downslope movement when loaded, excavated, or wet is allowed only with mitigation measures during periods of freeze-thaw and for one to multiple days following significant rainfall events. If the risk of landslides during these periods cannot be mitigated, then use is prohibited. d) <u>Soils Commonly Wet At Or Near The Surface During A Considerable Part Of The Year, Or Soils Highly Susceptible To Compaction</u> . Equipment use shall normally be prohibited or mitigated when soils are saturated or when freeze-thaw cycles occur.
Standard	SW08	Management actions that have the potential to contribute to soil nutrient depletion shall be evaluated for the potential effects of depletion in relation to on-site acid deposition conditions.
Standard	SW09	Winter logging is allowed but may only be used where it will meet Forest-wide soil and water quality standards.
Guideline	SW10	Inventory the soil resource to the appropriate intensity level as needed for project planning and/or design considerations.
Guideline	SW11	Soil stabilization procedures should take place as soon as practical after earth-disturbing activities are completed or prior to extended periods of inactivity. Special revegetation measures may be required.
Guideline	SW12	Use Forest-wide soils map(s) and county soil survey report interpretations to help determine soil characteristics and protection needs.
Guideline	SW13	Consider liming soils with a surface pH of less than 5.5 on seeding projects, except where there is an objective to maintain acidic ecosystems.
Guideline	SW14	Mulch should be applied on severely eroded areas, or areas with high potential for erosion, such as new road cut and fill slopes.
Guideline	SW15	Topsoil should be retained to improve the soil medium for plant growth on areas to be disturbed by construction. Topsoil should be salvaged from an area during construction and stockpiled for use during subsequent reclamation, or obtained from an alternate site. On some areas, soil material may have to be added to obtain vigorous plant growth. Soil to be used for this purpose should have chemical tests made to determine its desirability for use.

Management Direction for Soil and Water		
Type	Number	Direction Description
Guideline	SW16	Where the removal of vegetative material, topsoil, or other materials may result in erosion, the size of the area may be limited from which these materials are removed at any one time.
Guideline	SW17	During watershed or project-level analysis, incorporate soil protection or improvement into project planning through an awareness of: a) Soil, geology, and landform conditions; b) The inherent capability of the soils involved; and c) The degree and duration of soil disturbance.
Guideline	SW18	Topsoil or substitute materials used in reclamation should consist of friable soil reasonably free of grass, roots, weeds, sticks, stones, or other foreign material.
Guideline	SW19	Management activities that may result in accelerated erosion and loss of organic matter should have one or more of the following practices applied to mitigate potential effects: a) Limiting mineral soil exposure, b) Appropriately dispersing excess water, c) Ensuring sufficient effective groundcover, d) Stabilizing disturbed soils through revegetation, mulching, or other appropriate means, e) Preventing or minimizing excessive compaction, displacement, puddling, erosion, or burning of soils, and f) Preventing or minimizing the initiation or acceleration of mass soil movement (e.g., slumps, debris flows, or landslides).
Water Quality and Hydrology		
Goal	SW20	Manage watersheds to sustain healthy aquatic systems, achieve desired conditions, and meet state designated water uses.
Goal	SW21	Minimize non-point source pollution from management actions through project design and mitigation.
Goal	SW22	Provide for management, maintenance, and flow regulation of existing impoundments.
Standard	SW23	Logging and construction equipment shall not be washed in stream courses, nor shall material from washed equipment be allowed to drain into surface waters.
Standard	SW24	No new grazing allotments shall be permitted within municipal watersheds.
Guideline	SW25	New road crossings of stream channels should be located at least one mile upstream from a municipal intake.
Guideline	SW26	Management activities should maintain stream flow regimes to provide for channel stability and stream functions that support healthy riparian habitat, aquatic habitat, and downstream uses.
Guideline	SW27	Project activities proposed within municipal watersheds should be coordinated with the water district or municipality served, if the activities have the potential to affect the municipal water supply.
Guideline	SW28	Soil and water resource improvements within municipal watersheds should be prioritized by the following criteria: a) Protection of public health b) Maintenance of previous capital investments and improvements in the production of market goods and services. c) Improvement of all other renewable resources.
Stream Channels, Lakes, and Wetlands		
Goal	SW29	Maintain or restore riparian and floodplain function, including floodwater retention and storage.
Goal	SW30	Maintain surface and ground water sources to support healthy riparian and aquatic habitats, wetlands, channel function, and downstream uses.

Management Direction for Soil and Water												
Type	Number	Direction Description										
Goal	SW31	Maintain, enhance, or restore vegetation conditions that provide: <ul style="list-style-type: none"> a) Ecological functions of riparian, wetland, and aquatic ecosystems. b) Canopy conditions that regulate riparian and stream temperature regimes for native and desired non-native fauna and flora. c) Natural recruitment potential for large woody debris and other sources of nutrient inputs to aquatic ecosystems. d) Bank and channel stability and structural integrity. e) Habitat and habitat connectivity for aquatic and riparian-dependent species and upland species that use riparian corridors. f) Buffers to filter sediment. 										
Goal	SW32	During watershed or project-level analysis, assess existing or proposed road stream crossings for effects to stream channel form and function, including channel stability, passage of storm flows and associated debris, and passage of aquatic organisms. Prioritize crossings to address or correct identified concerns.										
Goal	SW33	During watershed or project-level analysis, identify and prioritize measures to mitigate resource damage caused by existing facilities.										
Standard	SW34	No programmed timber harvest shall occur within the channel buffers identified in the table in SW37. Tree removal from the buffers may only take place if needed to meet aquatic or riparian resource management needs, or to; <ul style="list-style-type: none"> a) Provide habitat improvements for aquatic or riparian species, or threatened, endangered, sensitive, and locally rare species; b) Provide for public or worker safety; c) Construct or renovate an approved facility; d) Construct temporary road, skid road, or utility corridor crossings; e) Conduct aquatic or riparian-related research, or f) Allow for cable yarding. 										
Standard	SW35	Where new roads and skid roads cross stream channels, channel and bank stability shall be maintained.										
Standard	SW36	When stream crossing structures are removed, stream channels shall be restored to their near-natural morphology (width, depth, and gradient associations for streambeds, streambanks, floodplains, and terraces). Disturbed soil shall be stabilized.										
Standard	SW37	<p>During project-level planning and implementation, determine channel buffers for streams that would potentially be affected by proposed activities. The following table represents default buffer widths to be applied to both sides of the channel.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Stream Classification</th> <th>Buffer Width</th> </tr> </thead> <tbody> <tr> <td>Perennial</td> <td>100 feet</td> </tr> <tr> <td>Large Intermittent (>50-acre drainage area)</td> <td>100 feet</td> </tr> <tr> <td>Small Intermittent (<50-acre drainage area)</td> <td>50 feet</td> </tr> <tr> <td>Ephemeral</td> <td>25 feet</td> </tr> </tbody> </table> <p>Buffer widths may be adjusted based on interdisciplinary review and site-specific field investigation. The buffers shall, at a minimum, encompass the riparian area defined on the basis of soils, vegetation and hydrology and the ecological functions and values associated with the riparian area.</p>	Stream Classification	Buffer Width	Perennial	100 feet	Large Intermittent (>50-acre drainage area)	100 feet	Small Intermittent (<50-acre drainage area)	50 feet	Ephemeral	25 feet
Stream Classification	Buffer Width											
Perennial	100 feet											
Large Intermittent (>50-acre drainage area)	100 feet											
Small Intermittent (<50-acre drainage area)	50 feet											
Ephemeral	25 feet											
Standard	SW38	The removal of large woody debris is allowed if it poses a risk to water quality, degrades habitat for aquatic or riparian wildlife species, or when it poses a threat to public safety (e.g., water recreation), private property, or Forest Service infrastructure (e.g., bridges). The need for removal is determined on a case-by-case basis with consideration for aquatic and riparian resource needs.										
Standard	SW39	Use no-till cultivation methods for wildlife opening maintenance within channel buffers.										

Management Direction for Soil and Water		
Type	Number	Direction Description
Standard	SW40	Skid trails and landings shall not be constructed within 100 feet of perennial, intermittent, and ephemeral channels except at crossings or when location outside the 100-foot zone pose a greater risk to aquatic or riparian resources. The 100-foot filter strip may be modified based on site-specific conditions such as soil type, slope, and stability.
Standard	SW41	Corralling or overnight tethering of horses or other livestock is not allowed within 100 feet of stream courses or lakes. Existing corral sites may be maintained until alternative sites are developed, provided impacts to water quality and stream channels are mitigated.
Standard	SW42	New trails, campsites, and other recreational developments shall be located, constructed, and maintained to minimize impacts to channel banks and other riparian resources.
Standard	SW43	Channel buffers shall not be available for commercial mineral material development.
Standard	SW44	New roads are allowed within channel buffers but are restricted to essential crossings. Construction of roads parallel to the channel shall be avoided within the channel buffer.
Standard	SW45	New roads within the channel buffer shall be designed to minimize impacts on aquatic and riparian resources.
Standard	SW46	New structures (culverts, bridges, etc.) shall be designed to accommodate storm flows expected to occur while the structures are in place. Use scientifically accepted methods for calculating expected storm flows.
Standard	SW47	Personal use firewood shall not be removed from stream channels or banks.
Guideline	SW48	Existing trails in channel buffers may be reconstructed or relocated to reduce impacts to riparian and aquatic resources.
Guideline	SW49	Closure orders may be used to control environmental impacts caused by dispersed recreation.
Guideline	SW50	Maintained wildlife openings and associated access routes identified as degrading riparian or aquatic conditions should be mitigated or closed and restored. New wildlife openings within channel buffers may occur where needed to provide habitat for riparian species, or TEP, RFSS, or locally rare species, and where maintenance for these openings and their access routes can be achieved without degrading riparian or aquatic conditions.
Guideline	SW51	Ground disturbance should be avoided within seeps, vernal pools, bogs, fens, and other wetlands during project implementation. These areas should be managed to protect wet soils and rare plants and provide wildlife watering sources using the following protection: a) No new system roads or skid roads should be located within these areas except at essential crossings. Such crossings should be designed to minimize disturbance to the extent practical. b) Logs should not be skidded through these areas. Keep slash and logs out of them. c) Where available, a canopy of 60-100 percent crown closure should be maintained within and adjacent to these areas, unless a more open canopy is needed for TEP species or RFSS management. d) Mast trees or shrubs may be planted in seeps if mast plants are currently lacking.
Guideline	SW52	Cable yarding that crosses channel buffers should avoid or mitigate adverse effects to the stream channel. Crossing should be at as near a right angle as possible, with full suspension preferred. Trees cut within channel buffers to provide cable corridors may be left on site for woody debris recruitment and erosion control.
Guideline	SW53	Use existing fire barriers, such as streams, roads, and trails for control lines where possible.
Guideline	SW54	Hand lines, wet lines, or black lines should be used where appropriate within channel buffers to minimize soil disturbance from fire suppression or control.
Guideline	SW55	New trails should not be located within channel buffers except at crossings, to control access to water bodies, or when location outside the buffer would pose greater risk to aquatic or riparian resources.
Guideline	SW56	Designated livestock stream crossings and watering points should be located, sized, and maintained to minimize impacts to aquatic and riparian resources.

Management Direction for Soil and Water		
Type	Number	Direction Description
Guideline	SW57	Improvements that invite concentrated livestock use—such as feed troughs, corrals, or salt/mineral blocks—should be located at least 100 feet from a channel, lake, or wetland.
Guideline	SW58	Watering troughs should be used where feasible to protect aquatic and riparian resources.
Guideline	SW59	Where private minerals are explored or developed within channel buffers, work with mineral developers to minimize disturbance to aquatic and riparian resources.
Guideline	SW60	Crossings should be designed so stream flow does not pond above the structure during normal flows to reduce sediment deposition and safely pass high flows.
Guideline	SW61	Work with special use permittees to mitigate effects from their operations to soil, water, and aquatic resources within channel buffers.
Guideline	SW62	Stream crossing construction on temporary and permanent roads should be completed as soon as practical, with mitigation as needed to minimize the potential for sedimentation.

See also Fire Management Goal FM03, Vegetation Goal VE01, Wildlife and Fish Goal WF04, Wild and Scenic River Goal WS02, Range Goal RA03, Minerals Goal MG02, Lands and Special Uses Goals LS17 and LS20, Roads and Facilities Goal RF02, Wildlife and Fish Objective WF12, Roads and Facilities Objective RF03, Fire Management Standard FM12, Vegetation Standards VE32 and VE34, Wildlife and Fish Standard WF14, Heritage Resources Standards HR05 and HR06, Timber Standards TR05 and TR08, Range Standards RA04, RA12, RA13, RA14, RA15; Minerals Standards MG 08, MG12, MG13, MG 15, MG17, MG32, MG33, MG34, MG38, MG41, MG42, MG43, MG48; Lands and Special Uses Standards LS23 and LS24, Roads and Facilities Standards RF06, RF07, RF29; Fire Management Guidelines FM19 and FM20, Vegetation Guideline VE06, Wildlife and Fish Guidelines WF19, WF21, WF22; Recreation Guideline RC32, Scenery Guidelines SM04 and SM05, Heritage Guideline HR12, Timber Guidelines TR10 and TR11, Range Guideline RA18, Minerals Guidelines MG20 and MG24, Lands and Special Uses Guideline LS05, Roads and Facilities Guidelines RF09, RF10, RF13, RF14, RF23.



Otter Creek – Otter Creek Wilderness

Fire Management

Forest Service Manual and Handbook direction for fire management is in FSM 5100 – Fire Management, and in FSH 5109.

DESIRED CONDITIONS

Fire is used as a tool to achieve and maintain desired vegetative conditions and fuel levels. Fire is actively suppressed where necessary to protect life, investments, and valuable resources. Fire operates within fire regimes appropriate to the vegetation type and management objectives, and helps maintain fire-adapted ecosystems. Pre-fire suppression conditions are maintained or restored where consistent with management prescription emphasis.

Management Direction for Fire Management		
Type	Number	Direction Description
Goal	FM01	Make firefighter and public safety the first priority in all fire management activities.
Goal	FM02	Provide for Forest fire prevention and protection consistent with public safety, resource values and management objectives. a) Contribute to national, regional or local fire prevention, suppression, and prescribed fire efforts by providing resources, expertise, and training. b) Participate in fire prevention programs or efforts, such as Firewise, that reduce the risks of wildfire in the wildland-urban interface.
Goal	FM03	Reduce wildfire risk to communities, municipal water supplies, and at-risk federal land by maintaining or restoring fire-resilient forest stands.
Goal	FM04	Maintain or restore late successional stands to a pre-fire suppression condition consistent with management prescription emphasis and desired conditions.
Goal	FM05	Establish a framework for restoring and maintaining the role of fire in fire-adapted ecosystems. During watershed and project level planning, identify and prioritize opportunities to maintain, enhance, or restore fire-adapted ecosystems.
Goal	FM06	Use prescribed fire to establish, maintain, control, or restore forest vegetation (e.g., oak regeneration and fire-resilient stands), wildlife openings, savannahs, and grazing allotments.
Goal	FM07	Prepare a Fire Management Action Plan to help implement Forest Plan Fire Management direction. Identify available resources and plan-specific prevention, detection, suppression, and prescribed burning actions based on the Fire Regime Condition Class and the following: a) An analysis of probable fire locations. b) Expected fire intensities c) Potential net resource value changes d) Risk to health and safety.
Goal	FM08	Design and implement prescribed fire projects so that emissions do not hinder the state from meeting air quality standards and attaining visibility goals.
Objective	FM09	Over the next 10 years use prescribed fire on 10,000 to 30,000 acres. Emphasize use in areas to reduce hazardous fuels and fire risk to property or investments, and/or in areas to maintain, restore, or enhance wildlife habitat or other ecosystem components.

Management Direction for Fire Management		
Type	Number	Direction Description
Objective	FM10	Identify potential fire hazard areas in wildland/urban interface areas. Focus on fire-adapted ecosystems in Fire Regime 1, Condition Class 3 and Fire Regime III, Condition Class 2. Develop and prioritize vegetation treatment plans in coordination with local volunteer fire departments, governments, agencies, and landowners to reduce the risk from wildland fire.
Objective	FM11	In conjunction with the State of West Virginia, develop and pursue a fire prevention program that maintains or reduces human-caused fire starts at or below a baseline average for the past decade. Focus prevention efforts on keeping fire starts low, while explaining the role fire plays in creating and sustaining certain ecosystems.
Standard	FM12	A prescribed burning plan must be prepared and approved prior to using prescribed fire as a management tool. The plan shall address protection or maintenance of TEP species and habitat, cultural resources, watershed resources, air quality, private property, and other resources or investments as needed or appropriate.
Standard	FM13	Wildland Fire Use may only occur under a fire management plan that evaluates a full range of management responses.
Standard	FM14	Use best available smoke management practices in prescribed fire design and implementation to avoid or mitigate adverse effects on public health and safety, or visibility in the Dolly Sods and Otter Creek Wilderness class I areas.
Standard	FM15	All managed burns must comply with Smoke Management Programs for West Virginia when these are implemented.
Standard	FM16	Demonstrate conformity with the State Implementation Plan for any prescribed fire planned within EPA designated “non-attainment” and “maintenance” areas.
Guideline	FM17	Activity fuels should be managed at a level commensurate with the allowable fire intensity and rate of spread that meets resource objectives.
Guideline	FM18	Fire detection should be accomplished through the least expensive and most practical technique as demonstrated by historic patterns of local interaction (i.e., local citizens support fire suppression and detection efforts and promptly report wildfires to their local volunteer fire departments).
Guideline	FM19	Fire suppression forces should select the least resource-damaging suppression techniques based on human safety, potential loss of resources, and cost effectiveness. Mechanized equipment and fire retardants are allowed suppression techniques. Confinement may be an appropriate suppression strategy. Mechanized equipment may be used in stream channel buffers during fire emergency situations.
Guideline	FM20	After a fire is controlled, rehabilitate those areas that have the potential to adversely affect soil, water, or other resources. Fire lines should be revegetated and water-barred, where necessary, to prevent erosion. Water diversions may be used to keep sediment out of channels.

See also Vegetation Goal VE01, Air Quality Standard AQ04, Vegetation Standards VE13 and VE22, TEP Species Standard TE72, Wildlife and Fish Standard WF13, Recreation Standard RC28, Heritage Resources Standards HR05 and HR06, Roads and Facilities Standard RF19, Soil and Water Guidelines SW53 and SW54, Wildlife and Fish Guideline WF16, Heritage Resources Guideline HR12, Lands and Special Uses Guideline LS05, Roads and Facilities Guideline RF16.

Vegetation

Forest Service Handbook management direction for vegetation is in FSH 2409.17 - Silvicultural Practices Handbook. Forest Service Manual and Handbook management direction for snags and coarse woody debris is in FSM 5150 – Fuels, FSM 2550 - Soil Management, and FSH 2509.18 - Soil Management Handbook. Direction for Threatened, Endangered, and Sensitive Plants is in FSM 2670 - Threatened, Endangered and Sensitive Plants and Animals. Direction for pesticide use management is in FSM 2150.

DESIRED CONDITIONS

Vegetation Diversity

Forested lands exhibit variable patterns of size classes, densities, structural stages, and species composition due to a combination of successional development, disturbance regimes, and management activities. Age class distribution ranges from openings maintained for wildlife habitat to a network of late successional stands.

Where vegetation development is primarily influenced by forest succession, late successional species composition is increasing, canopy cover densities are moderate to high, and late successional structure develops. While forest succession generally trends toward uneven-aged stands dominated by shade-tolerant tree species, disturbances such as wind throw, ice storm damage, insect and disease outbreaks, and fire contribute to differences in stand density, species composition, and structure in managed and unmanaged stands. Snags and coarse woody debris are present in sufficient quantities to provide for habitat diversity and long-term soil productivity.

Where vegetation development is influenced by management actions, forest succession will be interrupted in some areas to perpetuate early and mid-successional tree species and create age class diversity between stands. In some areas, forest management will perpetuate shade-intolerant or moderately tolerant tree species such as oaks. In these managed areas, a mixture of management activities and natural processes creates variety in size classes, structural stages, and species composition. Rotation ages and levels of harvest are such that stands of older trees also exist in actively managed areas, adding to the overall diversity of the landscape. Prescribed fire is also used where appropriate to manage oak forest types.

Rare Plants and Regional Forester's Sensitive Species (RFSS)

Rare plants and their habitats are protected and enhanced across the Forest through designation and management of Botanical Areas and Research Natural Areas, and through continued surveys and mitigation for species on the RFSS list. Rare plants and communities contribute to the biodiversity of the Forest and region.

Non-Native Invasive Plants

An early detection/rapid response strategy is employed to respond to new occurrences of non-native invasive plants that threaten forest, non-forest, and aquatic ecosystems. Existing and new

occurrences are prioritized for treatment based on threats to specific resources (rare plant species, tree species regeneration, visual effects, etc.) and ability to control the species. Native species and desired non-invasive non-native species are used to revegetate disturbed areas.

Pesticide Use/Integrated Pest Management

Outbreaks and resident populations of native and non-native pests are controlled to acceptable levels through careful use of pesticides and integrated pest management. An early detection/rapid response strategy is employed by the Forest to respond to new occurrences of plants, insects, and diseases that threaten forest and non-forest vegetation. Pesticide treatments achieve management objectives and pose little or no risk to humans and the environment.

Management Direction for Vegetation		
Type	Number	Direction Description
Vegetation Diversity		
Goal	VE01	Provide vegetative diversity through a mix of natural and maintained openings, wetlands, and early, mid, and late successional forests to support a wide variety of habitats, forage, scenery, recreational settings, and socio-economic opportunities.
Objective	VE02	Maintain or create age class diversity on suitable timberlands to provide for sustainable timber production and a variety of structure and wildlife habitat. Treat an estimated 20,000 to 40,000 acres over the next decade to move toward desired age class conditions.
Objective	VE03	Treat an estimated 4,000 to 12,000 acres over the next decade on lands not suited for timber production to help restore ecosystems and enhance wildlife habitat.
Guideline	VE04	Use lands unsuited for timber production (MPs 5.0, 6.2, 5.1, portions of 8.0) as patches of potential old growth. In MPs with suitable timberlands (MPs 3.0, 6.1, portions of 4.1), identify potential old growth areas based on management direction and emphasis, as well as information on delineating potential old growth in Appendix B.
Guideline	VE05	To provide for dispersion of vegetation diversity and a meaningful analysis of cumulative effects, mid-level and project planning should use watersheds (5 th - 7 th level, typically) as a unit of measurement to identify opportunities and analyze effects for vegetation management projects. Exceptions can be made for site-level activities such as hazard tree removal, localized timber stand improvement, or salvage.
Guideline	VE06	Native plant species should be used to revegetate, restore, or rehabilitate lands where natural regeneration is not likely to occur in a timely manner. Non-native, non-invasive plant species may be used: a) When needed in emergencies to protect resources (soil stability, water quality, etc) b) As an interim non-persistent measure to help re-establish native plants c) When native plant species are not available d) In permanently altered plant communities. When project objectives justify the use of non-native plant materials, documentation explaining why non-natives are preferred should be part of the project planning process.
<i>See also the Vegetation Desired Conditions, Goals, and Objectives for Management Prescriptions 3.0, 4.1, and 6.1.</i>		
Rare Plants and Regional Forester's Sensitive Plant Species		
Goal	VE07	Maintain or restore rare plant communities or individual populations to contribute to the biodiversity of the Forest.
Goal	VE08	Emphasize conservation and recovery of RFSS where quantity and quality of habitat is a concern. During watershed or project-level analysis in areas containing RFSS habitat, identify and prioritize opportunities for restoring or maintaining RFSS habitat.
Goal	VE09	Work with researchers, ecologists, geneticists and other interested parties to develop seed zones or breeding zones for native plants.

Management Direction for Vegetation		
Type	Number	Direction Description
Goal	VE10	Continue to identify potential Botanical Areas and recommend them for establishment.
Goal	VE11	Continue to work with the West Virginia Natural Heritage Program to identify rare plant and community occurrences on the Forest.
Standard	VE12	Allow collection of RFSS plants only for research or scientific purposes.
Standard	VE13	For management actions that have been identified by the Forest as likely to cause a negative effect on RFSS populations, negative effects shall be avoided or minimized to the maximum extent practical while still accomplishing the purpose of the project or action. Unavoidable negative effects shall be mitigated to the extent practical and consistent with the project purpose.
Guideline	VE14	Rare communities should be identified during project analysis. Management actions should avoid rare communities unless management is necessary to maintain, enhance, or restore a particular community. Conservation and management measures for rare communities should be determined on a case-by-case basis.
Guideline	VE15	Areas of non-native invasive plants within rare plant habitat should be identified and mapped during project-level analysis.
Guideline	VE16	Use Forest Service-approved portions of Conservation Strategies and Agreements, as appropriate, in the management of sensitive species habitat to help keep management actions from contributing to a trend toward listing for these species.
Terrestrial Ecosystems		
Guideline	VE17	Collect, interpret, and display information on terrestrial ecosystems to: <ul style="list-style-type: none"> a) Determine the kinds and intensities of inventories needed, b) Identify and classify rare communities to aid in conservation of threatened, endangered, and sensitive plants and animals, c) Add to the Terrestrial Ecological Unit Inventory (TEUI) of the Forest, d) Predict locations of rare plants or their habitats from the TEUI, and e) Predict effects to terrestrial ecosystems from various management options at the project level.
Guideline	VE18	Use the National Vegetation Classification system or other appropriate classification system, in the Forest TEUI. Assure that the TEUI is useful and meaningful to land managers at all levels.
Non-native Invasive Species (NNIS)		
Goal	VE19	Manage NNIS with an Integrated Pest Management approach, using prevention, education, eradication, containment, and control strategies in a coordinated effort that includes potentially affected resources, users, funding sources, and activities. <ul style="list-style-type: none"> a) Work to prevent new infestations of NNIS, with emphasis on areas where species have a high probability for establishment and spread. b) Work with WVDNR, utility companies, and special use operators to control NNIS in openings, rights-of way, and other use areas. c) During project-level analysis, identify and map areas of non-native invasive plants. Identify areas with extensive infestations where precautionary measures are necessary when planning and implementing management activities. d) Develop a Forest Non-native Invasive Species Management Plan in coordination with county, state, and federal agencies, including USFWS. e) Provide training to field-going personnel for detecting evidence of NNIS with potential for broad-scale vegetation impacts. f) Use the Forest-wide database and map library of NNIS and susceptibility to develop site-specific Integrated Pest Management approaches and strategies to manage these species.
Goal	VE20	Work with USDA State and Private Forestry and county extension agents to identify or develop sources for noxious weed free hay, straw, and mulch.

Management Direction for Vegetation		
Type	Number	Direction Description
Standard	VE21	On-Forest source sites for gravel and borrow materials shall be inspected for NNIS before materials are processed, used, or transported from the source site to the project area. Gravel or borrow material source sites with NNIS present shall not be used, unless effective treatment or other mitigation measures are implemented to prevent the spread of NNIS.
Standard	VE22	Projects that may contribute to the spread or establishment of noxious weeds shall be designed to include measures to reduce the potential for spread and establishment of noxious weed infestations.
Guideline	VE23	All seed used on National Forest System lands should free of seeds from noxious weeds.
Guideline	VE24	NNIS management should determine the presence, location, and amount of infestations. Management strategies should also identify: a) Methods and frequency for treating infestations, b) Treatment procedures and restrictions, c) Reporting requirements, and d) Follow-up or monitoring requirements.
Guideline	VE25	Special use permits should include language where appropriate to reduce the risk of NNIS invasion and spread.
Integrated Pest Management		
Goal	VE26	Use Integrated Pest Management methods to minimize or prevent the development of pest problems (includes all pests, e.g., insects, disease, vegetative, or animal). Provide training to field-going personnel for detecting evidence of insect or disease activity.
Guideline	VE27	Where pest problems occur, the selection of corrective measures should take into account management objectives, effectiveness, safety, environmental protection, and cost.
Pesticide Management		
Goal	VE28	Provide for safe and effective pesticide use on the Forest when needed as part of an Integrated Pest Management strategy.
Standard	VE29	All permittee, licensee, and grantee pesticide-use proposals and plans shall be reviewed to ensure that pesticide use on NFS lands complies with FS requirements. Proposals and plans shall be approved by the appropriate line officer.
Standard	VE30	Allow utility companies to maintain their rights-of-way through NFS lands using pesticides and other integrated vegetation management treatments, based on an appropriate environmental analysis.
Standard	VE31	Aerial application of pesticides is prohibited when rain or foggy weather is present or predicted within 4 hours of application. Avoid aerial application when wind velocities would cause excessive drift, or high temperature or low relative humidity would prevent adequate coverage. Adjust droplet size to attain adequate coverage and reduce the risk of drift.
Standard	VE32	Unless specifically registered for aquatic use, ground application of pesticides shall be conducted such that they do not enter surface waters, wetlands, or sink holes.
Standard	VE33	Where broadcast sprays are used on federal projects, an untreated zone of at least 100 feet must be left adjacent to private property when landowners object to the spray treatments in writing.
Standard	VE34	When a water carrier is used on pesticide projects and water is drawn from natural sources, the natural source must be protected from back siphoning.
Standard	VE35	All reasonable efforts shall be made to notify adjacent landowners and persons within the treatment area prior to application of restricted use pesticides.
Guideline	VE36	During environmental analysis for pesticide use, other reasonable alternatives should be evaluated to achieve the purpose and need of the project.
Guideline	VE37	Pesticide application within or adjacent to developed recreation areas should be limited to periods when the potential of pesticide exposure to Forest users is minimal.

Management Direction for Vegetation		
Type	Number	Direction Description
Guideline	VE38	Use application techniques that provide proper pesticide placement on the target area or species. Low pressure spray equipment is preferred.
<p><i>See also Soil and Water Goals SW02 and SW31, Fire Management Goal FM06, TEP Species Goals TE12 and TE29, Wildlife and Fish Goal 01, Scenery Goal SM01, Timber Goals TR01 and TR21, Range Goal RA11, Fire Management Objective FM10, TEP Species Objective TE30, Wildlife and Fish Objectives WF09, WF10, WF11; Timber Objective TR04, Soil and Water Standard SW03, TEP Species Standards TE14, TE23, TE24, TE25, TE30, TE31, TE32, TE33, TE35, TE36, TE37, TE42, TE43, TE58, TE59, TE64, TE67; Wildlife and Fish Standard WF13, Heritage Resources Standards HR05 and HR06, Range Standards RA04 and RA17, Minerals Standard MG15, Soil and Water Guidelines SW11, SW19, SW51; TEP Species Guidelines TE40, TE41, TE73, TE81; Wildlife and Fish Guideline WF16, Recreation Guideline RC15, Scenery Guideline SM06, Heritage Resources Guideline HR12, Range Guideline RA20, Lands and Special Uses Guideline LS32.</i></p>		



Hemlocks in Snow – Stuart Recreation Area

Threatened, Endangered, and Proposed Species

Forest Service Manual and Handbook management direction for Threatened, Endangered, and Proposed (TEP) species is in FSM 2600 – Wildlife, Fish, and Sensitive Plant Habitat Management, and in FSH 2609.13 – Wildlife and Fisheries Program Management Handbook. See FSM and FSH direction for other appropriate resources in this section.

Although all threatened, endangered, or proposed species on the Forest may not be individually addressed in the Forest-wide management direction, the Forest is obligated to provide sufficient habitat to contribute to their survival and recovery. This obligation is spelled out in more detail in the Endangered Species Act, Forest Service Manual and Handbook direction, and various recovery plans, conservation strategies and agreements, and Memoranda Of Understanding. In addition, Section 7 consultation will occur at the project level for all proposed actions that may affect these species or their habitat. The Forest Plan does not authorize or implement specific actions and therefore cannot predict potential effects from these actions. The actions and effects would occur at the project level and will be addressed in consultation at that level.

DESIRED CONDITIONS

Habitats for Threatened and Endangered Species are managed to maintain or enhance populations consistent with established and approved Recovery Plans. TEP management is coordinated with management of other resources to contribute to species recovery and achieve multiple-use objectives. Habitats for Proposed species are managed to help preclude listing as Threatened or Endangered under the Endangered Species Act (ESA). Effects from Forest programs or activities are at levels that do not threaten the persistence of TEP species populations.

Management Direction for TEP Species		
Type	Number	Direction Description
General Direction		
Goal	TE01	Provide habitat capable of contributing to the survival and recovery of species listed under the ESA. Provide habitat that may help preclude Proposed species from becoming listed.
Goal	TE02	Integrate TEP habitat management with other resource objectives.
Goal	TE03	Work with USFWS, WVDNR, and other appropriate personnel to identify and manage habitat for TEP species. Participate in recovery plan development for threatened or endangered species that occur on the Forest, or that may be influenced by Forest management activities.
Goal	TE04	Within watershed-level planning units, identify TEP species habitat and opportunities to maintain, restore, or enhance habitat conditions. Design and implement management actions at the project level to address opportunities and provide for ecological conditions, population viability, reproductive needs, and habitat components for TEP species.
Goal	TE05	Collaborate on outreach programs for TEP species and their conservation needs.
Standard	TE06	When proposed exploration or development of privately owned mineral rights may adversely affect TEP species or habitat, the Forest shall work with state and federal mineral operation permitting agencies to reduce adverse effects.

Management Direction for TEP Species		
Type	Number	Direction Description
Standard	TE07	Special use permits may be authorized in TEP species habitat if the uses do not adversely affect populations or habitat. This standard does not apply to Indiana bat or running buffalo clover. See special uses direction for these species, below.
Cave Habitat and Species		
Standard	TE08	Cave entry during closed periods for scientific study and observation may be permitted by Forest Supervisor's written approval and permit from USFWS or delegated authority.
Standard	TE09	Gates or fences installed at cave entrances shall allow free entry and exit by TEP species and shall not restrict normal airflows.
Standard	TE10	Gate installation that disturbs a cave feature or floor must have an archaeological survey prior to disturbance.
Standard	TE11	Gates and fences shall be monitored and maintained. Base monitoring frequency on past cave visits, access, and potential for disturbance. Maintenance and repair of gates shall be undertaken within a reasonable time frame from vandalism discovery.
<i>Additional Forest-wide direction to address the needs of specific TEP species is identified below.</i>		
Virginia Big-Eared Bat		
Goal	TE12	Within six miles of hibernacula, maternity colonies, and bachelor colonies, create or maintain a diversity of open, herbaceous habitats where consistent with MP emphasis.
Standard	TE13	Before taking actions on buildings that are within 6 miles of hibernacula, maternity colonies, or bachelor colonies, evaluate the buildings' potential to serve as roosting habitat and take action to avoid or minimize impacts as necessary. Actions (disposal, construction, reconstruction, etc.) are allowed during the hibernation period (November 16–March 31) without roosting habitat evaluation.
Standard	TE14	Within 200 feet of hibernacula, maternity colonies, or bachelor colonies, vegetation management shall only be conducted for: a) Bat habitat maintenance or improvement, b) Public safety, or c) Research.
Standard	TE15	New recreation facility construction is prohibited within 200 feet of hibernacula, maternity colonies, or bachelor colonies.
Standard	TE16	Prohibit public entry into caves and mines used as major hibernacula from September 1 to May 15. Minor hibernacula that harbor very few individuals in most years may remain open to the public if the Forest, USFWS, and WVDNR agree that public entry would be extremely unlikely to cause harm or mortality of Virginia big-eared bats.
Standard	TE17	Prohibit public entry into caves and mines used as maternity or bachelor colonies during the nursery season from April 1 to September 15.
Standard	TE18	Surface occupancy is not allowed for mineral operations on federal minerals that are within 200 feet of hibernacula, maternity colonies, or bachelor colonies.
Standard	TE19	Seismic exploration is prohibited within 200 feet of hibernacula, maternity colonies, or bachelor colonies unless it can be demonstrated that it would not have an adverse impact on bat populations or habitat.
Standard	TE20	Explosives shall not be used within 200 feet of hibernacula, maternity colonies, or bachelor colonies unless analysis can demonstrate that this activity will not have an adverse effect on bat populations or habitat. Explosives outside of this area shall not be used when such use has potential to damage the cave or disturb the bat.
Standard	TE21	New road or trail construction is prohibited within 200 feet of hibernacula, maternity colonies, or bachelor colonies.
Standard	TE22	If any new Virginia big-eared bat hibernacula, maternity colonies, or bachelor colonies are discovered on the Forest, the Forest shall develop appropriate protection measures in cooperation with USFWS and WVDNR. These measures could include closure orders, signs, fences, or gates.

Management Direction for TEP Species		
Type	Number	Direction Description
Indiana Bat		
The following terms and definitions (see Glossary) are critical to understanding direction for Indiana bats:		
<ol style="list-style-type: none"> 1. Primary Range 2. Hibernacula 3. Key Areas 4. Maternity site 		
Standard	TE23	Retain all shagbark hickory trees 5 inches in diameter at breast height (dbh) or greater in harvest units except where public or worker safety concerns or research opportunities exist.
Standard	TE24	After post-harvest treatments, retain an average of at least 6 snags per acre that are 9 inches dbh or greater within harvest units, except where public or worker safety concerns exist. Create additional snags, if needed, from the available leave trees to make up any difference. Prioritize snag retention and creation from the largest to the smallest dbh.
Standard	TE25	Retain all known roost trees until such time as they no longer serve as roost trees (e.g. lose their exfoliating bark or cavities, fall down, decay, or are no longer used by bats).
Standard	TE26	Where evidence of maternity colonies (reproductively active females or juveniles prior to August 15) is discovered, the Forest shall establish a 2.5-mile radius buffer around the evidence site and search for actual maternity colonies within this management zone. The radius may be adjusted if warranted by new scientific information. The search shall continue for 3 field seasons or until a maternity site is confirmed, whichever occurs sooner. While the search is ongoing, proposed actions in the management zone shall be reviewed in cooperation with USFWS and WVDNR to determine any site-specific protection measures that may be needed. If and when a maternity colony is found, the management zone shall be adjusted as specified in TE27. If no other evidence of maternity activity is found for 3 field seasons, the management zone shall expire.
Standard	TE27	If a maternity site is discovered, establish a management zone centered on the site. The management zone shall not exceed a 2.5-mile radius unless site-specific factors or new scientific information indicate that a larger zone is needed. The zone may be smaller than a 2.5-mile radius if an evaluation of topography, known roost tree locations, proximity of permanent water, or other site specific habitat characteristics indicates that a smaller zone is likely to satisfy the habitat needs of the colony. Needed protection measures within the zone shall be determined at a site-specific level in cooperation with USFWS and WVDNR.
Standard	TE28	If any new Indiana bat hibernacula are discovered on the Forest, the Forest shall develop appropriate protection measures in cooperation with USFWS and WVDNR. These measures could include closure orders, signs, fences, or gates.
Indiana Bat Primary Range		
Goal	TE29	Manage naturally occurring tree species composition to provide a continuous supply of suitable roost trees and foraging habitat for Indiana bat. Achieve vegetative diversity that maintains or improves Indiana bat habitat. Where consistent with management prescription emphasis, use a variety of silvicultural methods to create desired age class diversity.
Objective	TE30	Provide a continuous supply of suitable roost trees by maintaining a minimum of 50 percent of each primary range on NFS lands in any combination of mid successional (40-79 years), mid to late successional (80-120 years), and late-successional (>120 years) age classes.
Standard	TE31	Management of vegetation 5 inches dbh or greater may only be implemented if activities: <ol style="list-style-type: none"> a) Maintain or improve Indiana bat or other TEP or Sensitive species' habitat, or b) Address public or worker safety concerns, or c) Achieve research objectives.
Standard	TE32	Retain harvest unit snags greater than 5 inches dbh except where public or worker safety concerns exist.

Management Direction for TEP Species		
Type	Number	Direction Description
Standard	TE33	Leave at least 5 cull trees per acre, if available—preferably shagbark hickory, bitternut hickory, red oak, white oak, sugar maple, white ash, green ash, and/or sassafras. Prioritize cull retention from the largest to the smallest dbh.
Standard	TE34	New livestock grazing areas shall not cause maintained openings to exceed 5 percent of each primary range. Allotment Management Plans shall be modified, if needed, to ensure allotment management is compatible with Indiana bat habitat management.
Standard	TE35	When designing and implementing regeneration harvest units, the following direction shall be used to help retain appropriate leave trees for Indiana bat habitat: a) Preferred residual trees for shelterwood and two-aged regeneration harvests should include the following species as available: shagbark hickory, bitternut hickory, red oak, white oak, sugar maple, white ash, green ash, and/or sassafras. Prioritize residual trees from the largest to the smallest dbh. b) Retain clumps of live trees and shrubs at a rate of 1/3 an acre per 5 to 8 acres of regeneration harvest area. Clumps should be co-located with other retained features.
Standard	TE36	Maintain a component of large over-mature trees, if available, in all uneven-aged harvest units to provide suitable roosting habitat.
Standard	TE37	Regeneration harvest shall not cause the early successional (0-19 years) age class of forest stands to exceed 10 percent of each primary range at any time.
Standard	TE38	Special use permits and federal mineral exploration and development may be allowed within the primary range if they are compatible with Indiana bat management.
Standard	TE39	Explosives may be allowed within the primary range if it can be demonstrated that this activity will not have an adverse effect on bat populations or habitat.
Guideline	TE40	Shelterwood and two-aged regeneration harvests are the preferred silvicultural methods. Alternate methods may be used to meet other vegetation or wildlife habitat objectives when compatible with Indiana bat habitat management. Thinning from below is the preferred management method for stands originating before 1905. Other appropriate or preferred measures to maintain or improve Indiana bat habitat within primary range may be developed under consultation with USFWS and WVDNR.
Guideline	TE41	Without preventing the regeneration of desired tree species, sufficient basal area should be retained in even-aged harvest units to meet the habitat needs of Indiana bats. Basal area determinations should be coordinated between the project silviculturist and wildlife biologist, based on site-specific vegetative conditions and habitat needs.
Indiana Bat Hibernacula, Key Areas, and Maternity Sites		
Standard	TE42	Management of vegetation that is less than 5 inches dbh generally may occur within 200 feet of the hibernacula, within key areas, or within 2.5 miles of known maternity sites during any time of the year, provided adverse disturbance to bats is avoided.
Standard	TE43	Management of vegetation 5 inches dbh or greater may only be implemented within 200 feet of hibernacula or within key areas to: a) Maintain or improve Indiana bat, TEP, or Regional Forester Sensitive Species habitat, b) Address public or worker safety concerns, or c) Achieve research objectives.
Standard	TE44	No new recreational facilities shall be constructed within 200 feet of hibernacula or within key areas.
Standard	TE45	Prohibit public entry into caves and mines used as major hibernacula from September 1 to May 15. Minor hibernacula that harbor very few individuals in most years may remain open to the public if the Forest, USFWS, and WVDNR agree that public entry would be extremely unlikely to cause harm or mortality to Indiana bats.
Standard	TE46	Construction or other permanent activities may only occur in key areas if they maintain or improve Indiana bat habitat or provide for public safety.

Management Direction for TEP Species		
Type	Number	Direction Description
Standard	TE47	Do not issue permits for special uses occurring within 200 feet of hibernacula that would adversely affect Indiana bat populations or habitat.
Standard	TE48	Special use permits occurring within key areas and within 2.5 miles of maternity sites may be authorized if they are compatible with Indiana bat population maintenance or recovery.
Standard	TE49	Seismic exploration is not allowed within 200 feet of hibernacula, within key areas, or within 2.5 miles of maternity sites unless analysis can demonstrate it would not have an adverse impact on bat populations or habitat.
Standard	TE50	Explosives shall not be used within 200 feet of hibernacula, within key areas, or within 2.5 miles of active maternity sites, unless analysis can demonstrate that this activity will not have an adverse effect on bat populations or habitat. Explosives outside of these areas shall not be used when such use has potential to damage the cave or disturb the bat.
Standard	TE51	New road or trail construction is prohibited within 200 feet of hibernacula.
Standard	TE52	Surface occupancy for proposed federal mineral operations is not allowed within 200 feet of hibernacula or within key areas.
Standard	TE53	Surface occupancy for proposed federal mineral operations within 2.5 miles of maternity sites shall be evaluated on a case-by-case basis. Any surface occupancy must be compatible with Indiana bat population maintenance or recovery.
Standard	TE54	Establish and maintain a key area of at least 150 acres, if available, within each primary range.
Guideline	TE55	A key area should be contiguous and located as close to the cave as possible. Where available, this area should include 20 acres of late successional forest, and an additional 130 acres of mid-to-late successional or late successional forest.
Guideline	TE56	New road or trail construction should avoid key areas and maternity sites.
Cheat Mountain Salamander		
Goal	TE57	Identify opportunities to reduce fragmentation of populations and habitat.
Standard	TE58	Prior to proposed vegetation or ground disturbance in known or potential habitat, field surveys must be conducted and occupied habitat must be delineated.
Standard	TE59	Ground and vegetation-disturbing activities shall be avoided within occupied habitat and a 300-foot buffer zone around occupied habitat, unless analysis can show that the activities would not have an adverse effect on populations or habitat.
West Virginia Northern Flying Squirrel (WVNFS)		
Standard	TE63	Suitable habitat shall be determined using maps collaboratively produced by the Forest, USFWS, and WVDNR. These maps shall be reviewed during watershed or project analysis and refined when Forest, USFWS, and WVDNR biologists determine that suitable habitat is or is not present. All verified capture sites shall be included in the suitable habitat maps.
Standard	TE64	Suitable habitat shall be considered occupied. Vegetation management activities in suitable habitat shall only be conducted after consultation with USFWS, and: <ul style="list-style-type: none"> a) Under an Endangered Species Act Section 10 research permit to determine the effects of an activity on WVNFS or to determine activities that would contribute to the recovery of the species, or b) To improve or maintain WVNFS or other TEP species habitat after research has demonstrated the beneficial effects of the proposed management, or c) When project-level assessment results in a no effect or may affect, not likely to adversely affect determination, or d) To address public safety concerns.
Standard	TE65	New developed recreation facilities, such as visitor centers or campgrounds, shall not be constructed in suitable habitat. Smaller facilities—such as foot trails, trailheads, picnic sites, ¼ acre vistas—may be constructed if they result in a no effect or may affect, not likely to adversely affect determination.

Management Direction for TEP Species		
Type	Number	Direction Description
Standard	TE66	Development of federal gas and oil is generally allowed as long as: (a) it remains within the limits projected in the 1991 Environmental Assessment Oil and Gas Leasing and Development and (b) protection measures for WVNFS are developed through consultation with the USFWS prior to Forest Service approval of operations.
Shale Barren Rock Cress		
Standard	TE67	Vegetation manipulation and ground-disturbing activities are prohibited within shale barrens unless no feasible alternatives exist. Exceptions may be allowed for research or information-gathering activities.
Running Buffalo Clover		
Goal	TE68	Develop a conservation plan that incorporates measures to protect and/or enhance running buffalo clover populations to the extent practicable.
Goal	TE69	Coordinate with USFWS, WVDNR, and/or other state or private organizations to facilitate seed collection and storage efforts for running buffalo clover.
Standard	TE70	Special use permits occurring within occupied running buffalo clover habitat may be authorized only if they are compatible with population maintenance or recovery.
Standard	TE71	To the extent practicable, avoid implementing activities in areas that support running buffalo clover that have the potential to eliminate or have long-term detrimental effects to populations, such as placement of fill and gravel; paving; constructing new roads, well sites, or ditching for pipelines.
Standard	TE72	To the extent practicable, avoid conducting prescribed burns or constructing fuel breaks for prescribed burns through known running buffalo clover populations or habitat. If prescribed fire is used within running buffalo clover habitat, protect known populations by wetting or removing fuel from the immediate area.
Guideline	TE73	Where needed to help maintain or restore running buffalo populations, the Forest should implement habitat management measures such as creating selective canopy openings, initiating controlled levels of disturbance, controlling invasive species, or creating patches of potentially suitable habitat in adjacent areas. Measures should be coordinated with the USFWS and WVDNR prior to implementation, and include pre and post implementation site evaluations.
Guideline	TE74	Prior to changing access or use on roads or trails known to support running buffalo clover, estimates of potential frequency, timing, and severity of use should be made, and the Forest should develop appropriate protection measures in cooperation with USFWS and WVDNR.
Guideline	TE75	Surveys for running buffalo clover should be conducted June through no later than mid-August. Surveys should be conducted by personnel trained specifically to identify running buffalo clover.
Guideline	TE76	Prior to initiating project activities, running buffalo clover locations should be flagged so that managers, contractors, permittees, or cooperators are aware of running buffalo clover locations, unless it is determined on a case-by-case basis that marking populations would have more potential to cause negative effects.
Guideline	TE77	Prior to initiating project activities, managers, contractors, permittees, or cooperators should be informed about avoiding or limiting management activities in the immediate vicinity of running buffalo clover populations within the project area. Projects should be monitored to ensure that populations are not detrimentally affected over the long term.
Guideline	TE78	Maintenance mowing should be timed to benefit the species by reducing competition from other plants while avoiding periods of flowering and seed set.

Management Direction for TEP Species		
Type	Number	Direction Description
Guideline	TE79	When addressing private landowner access issues, work cooperatively with the landowner and the USFWS to minimize impacts to running buffalo clover. Inform the landowner of the presence of endangered species and the recommended actions to avoid impacts. Where possible, add conditions to Special Use Permits or develop written management agreements with the landowner in order to protect the species. If necessary, implement mitigation measures such as creating patches of potentially suitable habitat in adjacent areas, relocating plants or seeds, and/or constructing alternative access routes that would avoid long-term detrimental impacts to RBC.
Guideline	TE80	Piling slash around running buffalo clover populations should be avoided.
Guideline	TE81	Where possible, roads supporting running buffalo clover that are created or disturbed during timbering operations should be closed to additional traffic after the project is completed. Seeding/mulching plans should be coordinated to avoid the use of potentially invasive species, particularly non-native invasive species known to compete with running buffalo clover such as European white clover and red clover.
Guideline	TE82	If running buffalo clover populations are found within active grazing allotments, populations should be monitored to determine effects from grazing. If populations are being adversely affected by grazing activities, the allotment management plan should be adjusted appropriately to reduce or eliminate effects.
Guideline	TE83	Gating or restricting access to roads or trails should be implemented when monitoring of a running buffalo clover population shows signs of excessive disturbance from road or trail traffic.
<p><i>See also Wildlife and Fish Goals WF01 and WF06, Vegetation Goals VE07 and VE08, Wildlife and Fish Objective WF09, Fire Management Standard FM12, Vegetation Standards VE12 and VE13, Wildlife and Fish Standard WF13, Minerals Standards MG09, MG34, MG48; Soil and Water Guideline SW51, Lands and Special Uses Guidelines LS04 and LS05.</i></p>		

Wildlife and Fish

Forest Service Manual and Handbook management direction for wildlife resources is in FSM 2600 - Wildlife, Fish, and Sensitive Plant Habitat Management, and in FSH 2609.13 - Wildlife and Fisheries Program Management Handbook.

DESIRED CONDITIONS

The amount, distribution, and characteristics of habitat are present at levels necessary to maintain viable populations of native and desired non-native wildlife and fish species. For Regional Forester Sensitive Species (RFSS), management actions do not contribute to a trend toward federal listing. Human activities do not prevent populations from sustaining desired distribution and abundance, especially during critical life stages. Habitat conditions support populations of species of ecological, socio-economic, cultural, and recreational significance. The Forest works with the West Virginia Division of Natural Resources (WVDNR) to achieve agreed-upon wildlife management objectives.

Distribution of native and desired non-native fish and other aquatic species is maintained or is expanding into previously occupied habitat, with inter-connectivity between and within meta-populations. Efforts are in place to prevent new introductions of undesirable non-native fish species and to reduce degrading effects from past introductions. Restoration activities have resulted in maintaining necessary water temperatures, reducing pollutants such as sediment, and removing human-caused barriers to fish passage to restore populations and habitat connectivity where genetic contamination to native fish species from exotic species is not an issue.

Management Direction for Wildlife and Fish		
Type	Number	Direction Description
Goal	WF01	Provide habitat diversity that supports viable populations of native and desired non-native wildlife and fish species, including Management Indicator Species (MIS), game species, and furbearers, and keeps RFSS from a trend toward federal listing. a) During watershed or project-level analysis, identify and prioritize opportunities to maintain or restore habitat for RFSS, Birds of Conservation Concern, and other species of interest. b) Within watershed-level planning units, maintain, enhance, or restore representative examples of habitats that would be expected under unmanaged conditions, to the extent allowed by land ownership patterns, existing conditions, and management prescription emphasis.
Goal	WF02	Manage human-caused disturbances to help protect wildlife and fish populations during critical life stages.
Goal	WF03	Provide habitat for those wildlife and fish species that contribute to social and recreational opportunities, such as hunting, fishing, trapping, and wildlife viewing.

Management Direction for Wildlife and Fish		
Type	Number	Direction Description
Goal	WF04	Manage cold water streams to maintain or restore suitable habitat and native aquatic communities. a) During watershed or project-level analysis, identify and prioritize opportunities to improve water temperature and other habitat conditions. b) Restore connectivity in currently fragmented habitat where the risk of genetic contamination, predation, or competition from undesired fish species is not a concern. c) Use stream improvement structures where desirable to maintain or improve pool/riffle ratios, stream cover, and bank stability.
Goal	WF05	Maintain, enhance, or restore habitat for migratory birds, with an emphasis on Birds of Conservation Concern for the Appalachian Mountains Bird Conservation Region, as identified by USFWS. During watershed or project-level analysis, identify current and proposed activities that are likely to affect populations of Birds of Conservation Concern.
Goal	WF06	In conjunction with ongoing inventory and monitoring efforts, and in coordination with monitoring conducted by WVDNR, Forest Service Research, Universities, and other interested organizations, monitor populations and habitats of RFSS, MIS, Birds of Conservation Concern, and other species of interest sufficient to inform watershed and project-level analyses of potential negative effects, as well as opportunities for maintenance, enhancement, or restoration of habitat.
Objective	WF07	Reduce aquatic habitat fragmentation associated with the Forest transportation system by correcting 30-50 passage barriers, according to aquatic priorities, over the next 10 years. Correct existing passage problems with bridges, open bottom arches, or other structures that restore or simulate channel conditions that facilitate upstream and downstream passage of aquatic organisms, or remove barriers when roads are decommissioned or closed.
Objective	WF08	Actively restore aquatic and riparian habitat conditions in 30-50 miles of stream over the next 10 years. Activities that restore or improve the natural structure and function of channel and riparian conditions may include the installation of instream structures, large woody debris loading, riparian fencing, riparian planting, and bank and channel stabilization.
Objective	WF09	Maintain at least 50,000 acres of mid-late and late successional (>80 years old) mixed mesophytic and cove forest to meet habitat needs for cerulean warbler, a Management Indicator Species.
Objective	WF10	Maintain at least 150,000 acres of 50-150 year old oak and pine-oak forest in MPs 3.0 and 6.1 to meet habitat needs for wild turkey, a Management Indicator Species.
Objective	WF11	Maintain at least 20,000 acres of mid-late and late successional (>80 years old) spruce forest to provide optimum habitat for West Virginia northern flying squirrel, a Management Indicator Species. The long-term objective is to increase mid-late and late successional spruce forest to at least 40,000 acres.
Objective	WF12	Maintain at least 560 miles of coldwater stream habitat capable of supporting wild, naturally producing brook trout, a Management Indicator Species.
Standard	WF13	For management actions that have been identified by the Forest Service as likely to cause a negative effect on RFSS or Birds of Conservation Concern populations, negative effects shall be avoided or minimized to the maximum extent practical while still accomplishing the purpose of the project or action. Unavoidable negative effects shall be mitigated to the extent practical and consistent with the project purpose.
Standard	WF14	For protection of cold water fisheries, apply the following to the channel buffers of perennial trout streams (stocked and native) during the period of October 1 to June 1: a) Potential sediment-producing ground disturbance exceeding two consecutive days shall only be initiated after consultation with a Forest fisheries biologist. b) Sediment-producing ground disturbance during this period shall use additional erosion control measures and seeding or mulching, applied concurrently with the activity.
Standard	WF15	When activities are proposed near a known active raptor nest, a wildlife biologist shall be consulted for measures to avoid or mitigate disturbance.

Management Direction for Wildlife and Fish		
Type	Number	Direction Description
Guideline	WF16	When consistent with management prescription emphasis and direction, openings may be created and maintained in coordination with other resource projects to provide for vegetation diversity. Mechanical or chemical means, prescribed fire, or grazing may be used to help maintain openings. Native or desirable non-native, non-invasive trees and shrubs with high value for wildlife may be planted, released or pruned.
Guideline	WF17	Temporary, seasonal, or permanent closures may be implemented for areas and transportation routes to address concerns over human-caused disturbances during critical life stages such as nesting, denning, or spawning. Coordinate closures with WVDNR.
Guideline	WF18	Use Forest Service-approved portions of Conservation Strategies and Agreements, as appropriate, in the management of RFSS habitat to help keep management actions from contributing to a trend toward listing for these species.
Guideline	WF19	Management actions should be designed and implemented so they do not fragment habitat for native and desired non-native fish species.
Guideline	WF20	Activities with the potential for causing adverse effects should be avoided or mitigated to the extent possible within ½ mile of active peregrine falcon nests. Seasonal closure orders may be used to control human disturbance in the vicinity of peregrine falcon nests.
Guideline	WF21	Passage for fish and other aquatic organisms should be provided at all new or reconstructed stream crossings of existing or potential fish-bearing streams. Exceptions may be allowed to prevent the upstream migration of undesired species.
Guideline	WF22	Habitat improvement structures should be designed to complement riparian areas and management prescription emphasis. Improvement structures should be constructed of native materials where available.
Guideline	WF23	Coordinate with WVDNR on their proposed introduction, reintroduction, stocking, or transplanting of native or desired non-native species.
Guideline	WF24	Habitat maintenance, enhancement, and restoration opportunities for migratory birds that are identified during watershed or project-level analysis should be implemented to the extent they are consistent with management prescription emphasis and project purposes, and to the extent practical and allowed by budget constraints.
Bald Eagle		
Standard	W25	Maintain 1,500-foot protection zones around nest sites that have been active within the last three nesting seasons. Activities within this zone must be compatible with bald eagle management. Compatibility determinations shall be made on a case-by-case basis.
Standard	W26	Seasonal closure orders may be used to control human disturbance in the vicinity of nests.
Standard	W27	A nest and the tree or structure where it is located shall not be removed or damaged as long as any usable portion of the nest remains, regardless of the time elapsed since the nest was last used, unless there is a concern for public health or safety.
<p><i>See also all direction for TEP Species; plus Fire Management Goal FM06, Recreation Goal RC07, Range Goal RA01, Fire Management Objective FM09, Vegetation Objectives VE01, VE02, VE03, Soil and Water Standards SW38 and SW39, Vegetation Standards VE13 and VE22, Heritage Resources Standards HR05 and HR06, Timber Standard TR08, Range Standard RA19, Soil and Water Guidelines SW26, SW50, SW51; Heritage Resources Guideline HR12, Timber Guidelines TR11 and TR24, Range Guideline RA08, Lands and Special Uses Guidelines LS03, LS04, LS05, LS30, and LS32; Roads and Facilities Guidelines RF12 and RF23.</i></p>		

Recreation Resources

Forest Service Manual and Handbook management direction for recreation resources is in FSM 2300 - Recreation, Wilderness, and Related Resource Management, FSM 2710 – Special Use Authorizations, and FSM 2720 - Special Uses Administration; and in FSH 2309.18 - Trails Management Handbook, and FSH 2709.11 - Special Uses Handbook.

DESIRED CONDITIONS

People visiting the Forest find a wide spectrum of recreational opportunities. Diverse landscapes offer a variety of settings for recreational activities, ranging from semi-primitive non-motorized where there are opportunities for solitude, risk, and challenge; to a rural setting where there are opportunities for social interaction, comfort, and less risk. A variety of environmentally responsible access is provided for recreation users.

Recreation facilities are managed to provide a range of opportunities and development scales in a relatively safe environment. Recreation programs and facilities meet all applicable local, state, and national standards for health and safety. Accessibility is incorporated into facility and program access projects, while maintaining the development scale and setting of the area.

Dispersed recreation sites and uses are located in an environmentally responsible manner and managed to established standards. Various methods are used to manage recreation activities and facilities, and to mitigate adverse effects from recreation to other resources.

Conflicts between recreationists are reduced or addressed; while a broad array of recreation opportunities are available. Collaboration among users results in decisions that reduce conflicts between recreational and environmental needs. Local communities, partners, and volunteers are involved and benefit from their roles in providing recreational opportunities.

Interpretive exhibits, displays, and programs provide learning opportunities that enhance Forest visitor's experiences. Interpretive and educational efforts increase visitor awareness of the environmental effects of recreation use, and result in reduced adverse effects to other resources.

Authorized commercial developments and services meet established national standards and broaden the range of recreation opportunities and experiences provided on NFS lands.

Management Direction for Recreation Resources		
Type	Number	Direction Description
General Recreation		
Goal	RC01	Manage recreation opportunities using the Recreation Opportunity Spectrum (ROS) System, with an emphasis on recreation activities that require a large land area—such as hiking, hunting, mountain biking, and horseback riding—and facilities to support that use. Integrate resource protection and user safety into recreation management and facilities.
Goal	RC02	Manage recreation activities and programs consistent with the recreation integrated business management system standards.

Management Direction for Recreation Resources		
Type	Number	Direction Description
Goal	RC03	Manage for desired ROS settings across the Forest as indicated in the Management Prescription goals, objectives, or desired conditions for Recreation.
Objective	RC04	Provide an annual average of 75 miles of Trail Maintenance/Reconstruction in Wilderness, and 350 miles in non-wilderness areas.
Recreation System Planning		
Goal	RC05	Provide developed sites to support and supplement a wide range of recreation opportunities and settings, primarily where private or state development is not meeting demand or where a higher development scale is necessary to protect the environment.
Goal	RC06	Cooperate with counties, local governments, and convention and visitors bureaus in planning and joint efforts to promote recreation resources.
Goal	RC07	Promote barrier-free fishing facilities across the Forest.
Guideline	RC08	The ROS should be used to evaluate and tailor proposed projects and activities in order to maintain desired recreation opportunities and settings.
Guideline	RC09	Interpretive Service plans should emphasize information and interpretive programs that explain resource management direction and activities.
Guideline	RC10	Recreation use should be measured consistent with National Visitor Use Monitoring or other research techniques.
Developed Recreation Sites in Public Sector		
Goal	RC11	Give priority to the rehabilitation and upgrading of existing developed sites. Provide additional recreation facilities where needed and where the private sector is not likely to meet the demand. Design developed sites to compliment the adjacent or related ROS class, and be consistent with The Built Environmental Image Guide.
Goal	RC12	Provide accessible Forest facilities which are safe and convenient based on the ROS setting and development scale for the area.
Objective	RC13	Develop site-specific interpretive plans for visitor centers and interpretive facilities.
Objective	RC14	Prepare and update Operation and Maintenance Plans for developed recreation sites.
Guideline	RC15	In and around developed recreation sites, trees may be removed every year for safety or visual reasons.
Guideline	RC16	Location of recreational developments should be determined with priority given to correcting health and safety problems, protecting the environment, complementing prescribed recreation opportunities, and meeting public demand.
Guideline	RC17	In and around developed recreation sites, commercial timber sales should normally occur between December 1 and April 1.
Developed Recreation Sites in Private Sector		
Standard	RC18	Private development of fuel, eating, camping, or other services shall not be permitted along the Highland Scenic Highway, unless clearly justified by site-specific corridor planning.
General Forest Areas		
Standard	RC19	Limit site occupancy to 14 days throughout the Forest, except as approved by the appropriate line officer.
Standard	RC20	Camping shall not be allowed within 300 feet of the Highland Scenic Highway.
Standard	RC21	Camping and day use are allowed on the Forest unless prohibited by closure order.
Standard	RC22	Commercially owned facilities are prohibited within the general forest area.
Standard	RC23	Horse or mechanized use may be prohibited on trails not designed or maintained for such use.

Management Direction for Recreation Resources		
Type	Number	Direction Description
Guideline	RC24	Facilities that may be provided in dispersed areas, consistent with the ROS, are: a) Sealed vault toilets. b) Trails and parking areas to reduce adverse impacts. c) Potable water. d) Access may be graveled, all-weather road. e) Trash collection facilities. f) Tables and fireplaces g) Bridges h) Shelters i) Stock facilities.
Caves		
Standard	RC25	Caves on the Forest shall be available for public recreation use except where prohibited or restricted by closure order.
Trails		
Goal	RC26	Manage the trail system to support a wide variety of recreation opportunities and settings.
Objective	RC27	Develop a Forest-wide trail management plan to establish trail classes, permitted uses, construction, reconstruction, and maintenance priorities.
Standard	RC28	Damage to or loss of system trails from timber harvest, road construction, mining, special uses, or prescribed fire activities shall be repaired or mitigated by the program initiating or proposing the activity.
Standard	RC29	If a trail is temporarily used as a road, relocate the trail for the duration of the project.
Standard	RC30	Cross-country ski trails or routes are allowed and may be designated or groomed. Grooming by cooperators shall be approved on a case-by-case basis.
Guideline	RC31	Log skidding and road construction should not cross trail corridors except at designated crossing sites or unless the trail is already located on a road.
Guideline	RC32	Maintenance and/or relocation of existing trails should take priority over new trail construction. Trail maintenance priorities are as follows: a) Reduction of hazards to trail users. b) Prevention and mitigation of resource damage. c) Trail marking and signing. d) Treadway clearing work needed for user enjoyment.
Guideline	RC33	Visual variety and scenic attractions should be integrated in determining new trail development or existing trail relocation.
Guideline	RC34	The Forest may authorize construction and maintenance of special purpose trails, if use is compatible with Forest Plan direction, Management Prescription emphasis, and the suitability of terrain.
Guideline	RC35	Established agreements with individuals or organizations to construct or maintain trails on the Forest should continue. New agreements should be considered on a case-by-case basis, and should be consistent with Forest Plan direction.
<p><i>See also Vegetation Goal VE01, Wildlife and Fish Goal WF03, Scenery Goal SM01, Heritage Resource Goal HR02, Range Goal RA01, Roads and Facilities Goals RF01, RF02, RF15; Soil and Water Standards SW41 and SW42, Vegetation Standards VE13 and VE22, TEP Species Standards TE15, TE16, TE17, TE21, TE24, TE51, TE56, TE65; Wildlife and Fish Standard WF26, Heritage Resources Standards HR05 and HR06, Timber Standard TR08, Range Standard RA16, Minerals Standards MG09, MG19, MG29, MG28, MG29, MG30, MG31, MG37; Lands and Special Uses Standard LS07, LS14, LS22; Soil and Water Guidelines SW26, SW48, SW49, SW55; Vegetation Guideline VE37, TEP Species Guideline TE74, Wildlife and Fish Guidelines WF17 and WF20, Scenery Guidelines SM05 and SM08, Heritage Resources Guideline HR12, Timber Guideline TR12, Range Guideline RA08, Lands and Special Uses Guidelines LS03, LS05, LS23; Roads and Facilities Guidelines RF11, RF12, RF19, RF20, RF21, RF22, RF23, RF24, RF29, RF32.</i></p>		

Scenery Management

Forest Service Manual direction for managing the scenic environment is in FSM 2380 - Landscape Management. Direction can also be found in the Scenery Management System (SMS) in Agriculture Handbook Number 701.

DESIRED CONDITIONS

The Forest provides diverse visual landscapes. The scenic environment ranges from landscapes displaying little or no evidence of management activities, to landscapes that have dominant visible evidence of management activities. Scenic integrity is maintained or enhanced in areas of high scenic value and other highly used recreation areas. In general, management activities blend in with the natural environment. The benefits, values, desires, and preferences regarding aesthetics and scenery are integrated into all levels of land management planning.

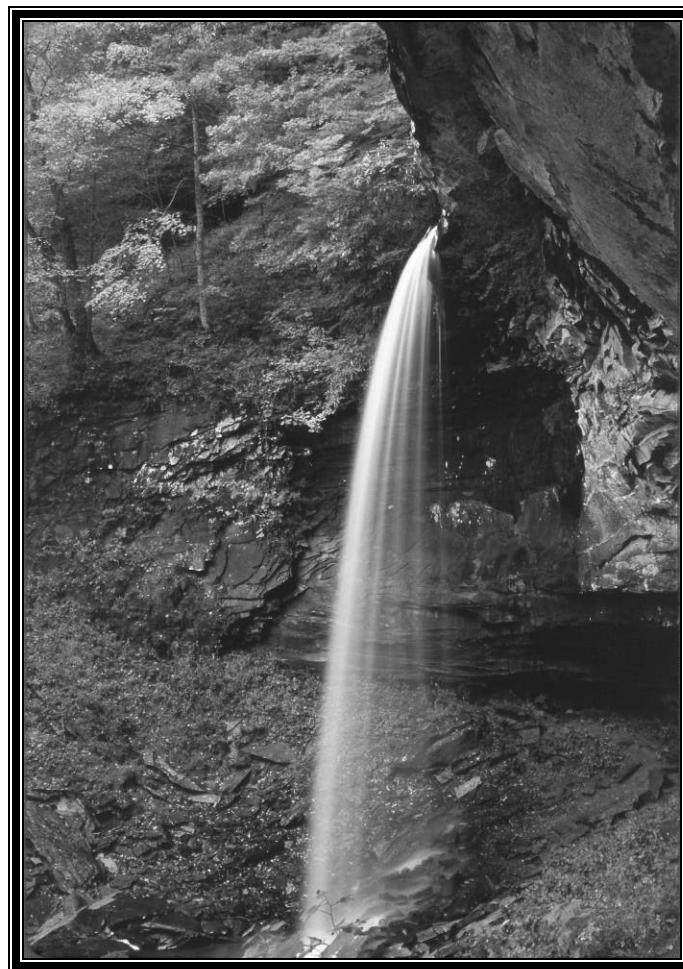
Direction for Scenery Management		
Type	Number	Direction Description
Goal	SM01	Management activities are consistent with Scenery Management System (SMS) and ROS, while meeting other resource needs (see ROS/Scenic Integrity Matrix below).
Guideline	SM02	Favor the use of naturally occurring colors in the choice of finishes for constructed facilities.
Guideline	SM03	Slope contouring should be used on road construction projects in areas of high visual sensitivity.
Guideline	SM04	Reduce color contrasts of exposed soil within the time limit specified by the adopted scenic integrity objective. Use mulch, topsoil, seeding, and fertilizing as appropriate.
Guideline	SM05	Road and trail structures—such as bridges, binwalls, and headwalls—should be designed to meet the Scenery Integrity Objective (SIO).
Guideline	SM06	Favor retention of large trees and an unbroken forest canopy at Forest entrances.
Guideline	SM07	Utility corridors should be located to minimize visual impact. Where possible avoid areas with an SIO of high and very high..
Guideline	SM08	The SMS should be used to consider landscape character, scenic integrity levels, constituent information, and landscape visibility when inventorying or analyzing effects to the scenery and landscape aesthetics proposed by other management activities. The following matrix should be used to provide a compatibility comparison of the SIO and ROS classifications.

See also Air Quality Goal AQ01, Fire Management Goal FM08, Vegetation Goal VE01, Range Goal RA01, Air Quality Standard AQ04, Fire Management Standard FM08, Timber Standard TR08, Minerals Standards MG08, MG13, MG15; Lands and Special Uses Standard LS25, Recreation Guidelines RC15 and RC33; Wild and Scenic Rivers Guideline WS04, Timber Guidelines TR12 and TR20, Range Guideline RA08, Minerals Guidelines MG25 and MG26, Lands and Special Uses Guidelines LS03, LS30, LS31; Roads and Facilities Guidelines RF13 and RF32.

ROS and SIO Matrix Guidelines

ROS Class	Scenic Integrity Objectives				
	Very High	High	Moderate	Low	Very Low
Primitive	Norm	Inconsistent	Unacceptable	Unacceptable	Unacceptable
Semi-Primitive Non-Motorized	Fully Compatible	Norm	Inconsistent	Unacceptable	Unacceptable
Semi-Primitive Motorized	Fully Compatible	Fully Compatible	Norm (1)	Inconsistent	Unacceptable
Roaded Natural	Fully Compatible	Norm	Norm	Norm (2)	Inconsistent
Rural	Fully Compatible	Fully Compatible	Norm	Norm (2)	Inconsistent (3)
Urban	Fully Compatible	Fully Compatible	Fully Compatible	Fully Compatible	Not Applicable

1. Norm from sensitive roads and trails
2. Norm only in middle ground-concern level 2 (Mg-2) where a Roaded Modified subclass is used
3. Unacceptable in Roaded Natural and Rural where a Roaded Modified subclass is used. It may be the norm in a Roaded Modified subclass.



Lower Falls – Falls of Hills Creek Scenic Area

Wild and Scenic Rivers

Forest Service Handbook direction for managing eligible, suitable, and designated Wild and Scenic Rivers is in FSH 1909.12 - Land and Resource Management Planning, Chapter 8.2.

The following direction applies to eligible river segments. River corridors include the shorelines that generally extend a ¼ mile on either side of the eligible river segments. These segments are given a preliminary classification (Wild, Scenic, Recreational) based on varying levels of human activity. Rivers may be segmented into more than one classification.

DESIRED CONDITIONS

Rivers and their corridors that are determined eligible are managed to retain their free-flowing condition, their highest classification potential, and the outstandingly remarkable values identified until they are either designated as WSRs by Congress or returned to their original or assigned management prescription.

Management Direction for Wild and Scenic Rivers		
Type	Number	Direction Description
Goal	WS01	Manage river segments that are eligible for potential addition to the National Wild and Scenic Rivers System.
Goal	WS02	Emphasize the following in managing eligible rivers: a) Maintain or enhance the outstandingly remarkable values for which the river segment is eligible; b) Maintain the free-flowing character; c) Maintain or enhance values with the assigned classification; and d) Accommodate public use and enjoyment consistent with the river's outstandingly remarkable values.
Standard	WS03	When management actions are proposed that may compromise the outstandingly remarkable value, classification, or free-flowing character of an eligible Wild and Scenic River segment, a suitability study shall be completed for that eligible river segment prior to initiating the actions.
Guideline	WS04	The following Scenic Integrity Objectives should be assigned to the classifications of eligible Wild and Scenic River corridors: a) Very High to a Wild classification, b) High to a Scenic classification, c) Moderate or High to a Recreational classification.

See also Minerals Standard MG36, Lands and Special Uses Guideline LS05.

Heritage Resources

Forest Service Manual management direction for the Heritage Program and cultural resources is in FSM 2360. Direction can also be found in the National Heritage Strategy.

DESIRED CONDITIONS

Heritage resources are identified and their eligibility as historic properties for inclusion in the National Register of Historic Places (NRHP) determined. If warranted, eligible sites are nominated for listing in the NRHP. Qualified researchers and scholars are provided access to data needed to further our knowledge of the prehistory and history of the area of the Forest and the region.

People visiting the National Forest can find opportunities to explore, enjoy, and learn about cultural heritage. As visitors travel through landscapes and experience diverse environments and cultures, they can make a personal connection with the land and people and have the opportunity to reflect on the relevance of the past and the land to their daily lives.

Management Direction for Heritage Resources		
Type	Number	Direction Description
Goal	HR01	<p>Emphasize the protection of historic properties, completion of the Forest-wide heritage resources inventory, and evaluation of heritage resources.</p> <ul style="list-style-type: none"> a) Identify heritage resources at the earliest stages of project planning and, when appropriate, evaluate their significance as historic properties eligible for inclusion in the NRHP. b) Preserve, protect, stabilize, monitor, interpret and, when appropriate, mitigate for loss of, or adverse effects to, historic properties. c) Manage heritage activities in a manner consistent with any current or future Programmatic Agreement entered into under the terms of 36 CFR 800: Protection of Historic Properties.. d) Nominate historic properties for inclusion in the NRHP. e) Refine the current predictive model by incorporating up to date site location, geologic, hydrologic, soil and topographic data in a corporate database.
Goal	HR02	<p>Identify opportunities for appropriate use and interpretation of heritage resources.</p> <ul style="list-style-type: none"> a) Increase public awareness, involvement, and appreciation of heritage resources through the expansion of stewardship and public service programs. b) Curate artifacts and records on Forest and make them available for study by qualified researchers.
Goal	HR03	<p>Integrate archeological and historic knowledge into all levels of Forest planning.</p> <ul style="list-style-type: none"> a) Incorporate current archeological and historic knowledge into the Forest's Cultural Resources Overview. b) Provide prehistoric and historic contexts for project-level planning that document the influences that human activities have had on past ecosystems.
Standard	HR04	<p>Unevaluated heritage resources must be treated as eligible historic properties until evaluated.</p>

Management Direction for Heritage Resources		
Type	Number	Direction Description
Standard	HR05	Projects shall be designed to avoid, minimize, or mitigate adverse effects to NRHP-eligible or unevaluated heritage resources. In-place protection of all identified eligible or unevaluated heritage resources is the minimum requirement. Heritage resources evaluated and determined not eligible for inclusion in the NRHP are afforded no such protection.
Standard	HR06	Conduct heritage resources surveys in the Area of Potential Effect of federal undertakings unless such areas have already been surveyed in a manner consistent with current professional standards. Surveys must be conducted under the guidance of a professional archeologist.
Standard	HR07	Review undertakings that may affect cultural resources to identify potential impacts. Compliance with Sections 106 and 110 of the National Historic Preservation Act of 1966, as amended, shall be completed before the responsible agency official signs the decision document.
Standard	HR08	Develop mitigation measures for each unevaluated, NRHP-eligible, or NRHP-listed heritage resource where direct and/or indirect management-related effects are probable.
Standard	HR09	Forest Service line officers shall stop ground-disturbing activities that impact or may impact known or newly-discovered heritage resources until the Forest Heritage Resources Program manager or qualified staff has made an on-site assessment of the resource and has completed appropriate cultural resources compliance. Heritage resources that have been evaluated and were determined not eligible for inclusion in the NRHP are afforded no such protection.
Guideline	HR10	Heritage resource artifact collections and records, and administrative history and archival data, should be curated in accordance with federal standards, and through consultation with SHPO and other interested parties.
Guideline	HR11	The eligibility of resources may be re-examined and changed if additional evidence or information about them becomes available.
Guideline	HR12	Confer with other resource specialists in the earliest planning stages of projects involving ground disturbance, diminished jurisdiction, increased public use of, or increased access to, a heritage resource.
Guideline	HR13	Criteria for interpretive suitability of sites, structures, and features of the built environment may include, but not be limited to: accessibility; property condition; protection considerations; compatibility with other resource activities or management prescriptions; and public interest or values.
Guideline	HR14	A management plan should be developed for each historic property nominated to the NRHP. The plan should be drafted during the nomination process.
Guideline	HR15	Historic structures and features of the built environment may be removed if they are not identified for possible administrative use or interpretive theme, or if they pose a risk to health or safety. The level of documentation for such structures and features to be removed may vary with the condition, significance, and recommendations of the SHPO and the Advisory Council on Historic Preservation.

See also Fire Management Standard FM12, TEP Species Standard TE10, Minerals Standard MG18, Lands and Special Uses Standard LS24, Lands and Special Uses Guideline LS05.

Timber Resources

Forest Service Manual and Handbook direction for timber management is in the FSM 2400 - Timber Management, and in Forest Service Handbooks: 2409.13 - Timber Resource Planning Handbook, 2409.13a - Timber Permanent Plot Handbook, 2409.15 - Timber Sale Administration Handbook, 2409.17 - Silvicultural Practices Handbook, 2509.18 - Soil Management Handbook, 2609.13 - Wildlife and Fisheries Program Management Handbook, and 2509.22 – Soil and Water Conservation Practices Handbook. Sale implementation direction can also be found in Timber Sale Contract Provisions and procurement contracts.

DESIRED CONDITIONS

Suited timberlands provide sustainable and predictable levels of forest products. Forest products include, but are not limited to, fuelwood, post and poles, and sawlogs. The Forest provides a dependable source of large-diameter, high-quality sawtimber. Commercial timber harvest is a viable tool for accomplishing vegetation management objectives.

The Vegetation section in this chapter, and Management Prescriptions 3.0, 4.1, and 6.1 in Chapter III contain desired conditions for species composition, tree age classes, snags, and coarse woody debris for a variety of vegetation groups.

Management Direction for Timber Resources		
Type	Number	Direction Description
Timber Resource Management Planning		
Goal	TR01	Manage vegetation to provide a sustained yield of timber, contribute to local and regional economies, achieve desired age class distributions, and benefit other resources.
Goal	TR02	Use appropriate harvest technologies to ensure cost efficiency and demonstrate prudent forest management, while addressing environmental concerns and preserving ecosystem integrity.
Objective	TR03	Make available 25 to 105 million cubic feet of timber for the decade, which will contribute to Allowable Sale Quantity (ASQ).
Objective	TR04	Provide timber harvest, and related reforestation and timber stand improvement activities, to contribute toward the attainment of desired vegetation conditions. On suitable timber lands, harvest timber, other than by salvage, on an estimated 20,000 to 36,000 acres over the next 10 years.
Standard	TR05	Whole-tree yarding shall be prohibited where site-specific soil inventories determine the need for on-site nutrient retention. Whole-tree yarding may be allowed elsewhere based on site-specific management objectives.
Standard	TR06	No more than 20 percent of NFS lands within each prescription area unit shall receive regeneration harvest over a 10-year period.
Guideline	TR07	Stands less than 10 acres in size should only be created to meet resource objectives other than timber production. Existing stands less than 10 acres should be maintained in the corporate database until such time that it is feasible to incorporate them with one or more adjoining stands.

Management Direction for Timber Resources		
Type	Number	Direction Description
Commercial Timber Sales		
Standard	TR08	Activity fuels (slash) shall be removed from permanent roads and recreation trails as part of normal harvest operations. Slash may be retained in wildlife openings if it is arranged into brush piles that would provide beneficial habitat structure without impeding wildlife movement and maintenance of openings. Slash may be retained in streams when considered beneficial for aquatic resources.
Guideline	TR09	Skid trails should normally be a minimum of 200 feet apart, but may be closer to adjust to ground conditions. System roads should not be used for skidding.
Guideline	TR10	System roads should not be used as log landings unless they are determined to be environmentally preferable and do not result in irreversible road damage. Within one growing season after completion of harvest activities, wildlife openings that are used as log landings should be rehabilitated using vegetation beneficial to wildlife.
Guideline	TR11	Log landings, equipment storage areas, portable sawmill sites, and other concentrated activities should be located outside of channel buffers.
Guideline	TR12	In and around developed recreation sites, activity fuel should be removed by chipping, burning, or other means, including opportunities for fuelwood gathering.
Guideline	TR13	Minimize bole damage by reducing the number of skid trails and using "bumper trees".
Other Than Commercial Sales		
Goal	TR14	Provide firewood gathering opportunities to address local demands.
Standard	TR15	Trees must be both dead <u>and</u> down for personal use firewood, except where determined by the Forest to be a risk to public safety or in designated areas covered by the guideline below. Cutters must have personal use firewood permits.
Guideline	TR16	The Forest may make green firewood available to the public in designated areas. These areas should contribute to the accomplishment of resource management objectives.
Guideline	TR17	Closed roads may be opened temporarily for firewood collecting, depending on management prescription direction and potential impacts to other resources.
Silvicultural Systems		
Standard	TR18	Regeneration harvest units shall be separated by manageable stands of trees. This spacing requirement applies to regeneration units until regenerated trees have reached 20 percent of the height of the surrounding vegetation.
Guideline	TR19	Both even- and uneven-aged silviculture systems may be used to help meet management objectives. Base the choice of system and applicable harvest methods on the management prescription, the vegetation present, and/or the needs of other resources.
Guideline	TR20	Harvest openings in the immediate foreground, foreground or midground of visually sensitive areas should be irregular, natural-appearing shapes and sizes to blend in with the landscape.
Reforestation and Timber Stand Improvement (TSI)		
Goal	TR21	Manage for tree species composition that suits the potential vegetation of the site.
Standard	TR22	An area shall be considered reforested when it meets the stocking and species requirements specified in the detailed silvicultural prescription for the site-specific area.
Guideline	TR23	Sites should only be converted from one forest type to another (e.g. mixed hardwoods to red spruce or oak-hickory) as part of ecosystem restoration efforts.
Guideline	TR24	Consider the needs of other appropriate resources when prescribing TSI activities.
Guideline	TR25	Silvicultural operations should be identified during project planning in the detailed silvicultural prescriptions and scheduled in priority based on expected benefits and the objectives of the Management Prescription area.
Guideline	TR26	Reforestation prescriptions should include the consideration of genetically improved planting stock as an alternative practice.

Management Direction for Timber Resources		
Type	Number	Direction Description
<p><i>See also Soil and Water Goal SW01, TEP Species Goal TE29, Scenery Goal SM01, Vegetation Objective VE02, Soil and Water Standards SW07, SW09, SW23, SW34, SW35, SW37, SW40; Vegetation Standards VE13 and VE22, TEP Species Standards TE23, TE24, TE30, TE31, TE32, TE33, TE35, TE36, TE37, TE58, TE59, TE67; Recreation Standards RC28 and RC29, Heritage Resource Standards HR05, HR06, HR09; Minerals Standard MG14, Fire Management M17, Vegetation Guideline VE04, Soil and Water Guidelines SW51 and SW52, TEP Species Guidelines TE40, TE76, TE77, TE80, TE81; Recreation Guidelines RC17 and RC31, Heritage Resources Guideline HR12, Minerals Guideline MG25, Lands and Special Uses Guideline LS10, Roads and Facilities Guidelines RF14 and RF15.</i></p>		



Timber Sale Log Deck in Winter

Range Resources

Forest Service Manual and Handbook direction for rangeland resources is in FSM 2200 - Range Management, and FSH 2209 - Range Management, and includes both Service-wide and Regional Office direction.

DESIRED CONDITIONS

Grazing allotments are managed primarily for livestock grazing, wildlife habitat, visual diversity and dispersed recreation. A sustainable level of forage, consistent with other resource management direction, is available for use through the grazing permit system. Rangeland forage quality is maintained or improved in areas where vegetation management projects and range management actions occur. Riparian and upland areas within range allotments are functioning properly or have improving trends in vegetative composition, structure, and vigor. The composition and densities of tree, shrub, and herbaceous vegetation are variable and dynamic.

Management Direction for Range Resources		
Type	Number	Direction Description
Livestock and Allotment Management		
Goal	RA01	Manage grazing allotments to provide open areas for forage, wildlife habitat, visual diversity, and dispersed recreation.
Goal	RA02	Establish grazing capacities based on sound range inventory and analysis processes. Vary forage utilization between allotments based on grazing management systems in use, Management Prescription emphasis, and other factors, such as the dominant forage species.
Goal	RA03	Manage grazing disturbance at levels that support movement toward desired ground cover conditions and maintenance or restoration of inherent soil quality and function.
Standard	RA04	Allotment management plans (AMPs) shall be prepared and maintained on grazing allotments commensurate with the planned intensity of management. Design AMPs to maintain or improve vegetation, soil, and water resources. AMPs shall be coordinated with livestock production systems in use on adjacent lands to achieve balanced and sound management. Seek permittee involvement in the preparation of AMPs.
Guideline	RA05	Existing special use pasture permits may be converted to grazing permits where the land area can be managed as a grazing allotment.
Guideline	RA06	Newly acquired lands that are suitable for livestock grazing may be converted to grazing allotments.
Guideline	RA07	Additional areas for livestock grazing may be developed based on management prescription emphasis, land capability, cost effectiveness, resource condition, the needs of other resources, and the demand for forage and grazing levels.
Guideline	RA08	Open areas within allotments should be maintained for visual, wildlife, recreational, and forage purposes. Grazing should be one means of accomplishing this purpose and should be used where practical and efficient. Efficiency refers to a relative comparison of alternative means to keep the land in an open condition, not necessarily the efficiencies of the grazing operation.
Guideline	RA09	If water availability allows, rotational grazing should be encouraged to: <ol style="list-style-type: none"> Allow regrowth of the most desirable forage species, Avoid overuse of the most desirable areas, and Distribute use more evenly over the allotments.

Management Direction for Range Resources		
Type	Number	Direction Description
Guideline	RA10	Give preference for grazing opportunities to local, resident landowners. Use competitive bidding to select new permittees.
Range Improvements		
Goal	RA11	Maintain or improve existing range allotments by: <ul style="list-style-type: none"> a) Refining or implementing more appropriate grazing systems, b) Applying lime and fertilizer where needed, c) Seeding to improve vegetation quality, and/or d) Selectively controlling undesirable vegetation, such as brush or non-native invasive species.
Standard	RA12	Stream access points shall be selected for streambank and channel stability. Stabilization of the access points shall be accomplished if needed. When monitoring indicates that streambank stability is not being maintained, perennial or intermittent streams shall be fenced from livestock, and alternative crossings shall be designated.
Standard	RA13	A minimum 25-foot buffer strip shall be maintained between watercourses, both permanent and intermittent, and applications of lime or fertilizer.
Standard	RA14	Soil supplements may be added to grazing areas only after soil analysis or indicator plants demonstrate a need. Types and rates of application shall be determined through a soil analysis.
Standard	RA15	Corrals, loading chutes, water troughs, and other similar livestock facilities shall be located on well-drained ground and on soils that can withstand the degree of use planned. Gravel may be applied to harden or armor areas of heavy use.
Standard	RA16	Walk-through gates, stiles, or other devices shall be installed in fences that bisect system trails.
Standard	RA17	Hawthorn management shall be addressed in AMPs for allotments where hawthorn occurs, using Integrated Resource Management or other appropriate procedures. Hawthorn stands shall be inventoried within grazing allotments to establish baseline conditions for management planning and treatments.
Guideline	RA18	Bog, seep, or spring areas within or adjacent to allotments may be used to provide water to livestock watering facilities and should be protected by fencing.
Guideline	RA19	Favor introduction of legumes into pastures over nitrogen fertilizer application.
Guideline	RA20	Revegetation activities should use a variety of native species and maintain or improve vegetative diversity. Monoculture conditions should be avoided.
Guideline	RA21	Supplements (minerals, salt, etc.) should be provided in moveable feeders and used to improve livestock distribution and use over the allotment as needed.
<p><i>See also Soil and Water Goal SW01, Fire Management Goal FM06, Vegetation Goals VE01 and VE19, Soil and Water Standards SW24 and SW41, Vegetation Standards VE13, VE22, VE23; TEP Species Standard TE34, Heritage Resources Standards HR05 and HR06, Soil and Water Guidelines SW56, SW57, and SW58; TEP Species Guideline TE82, Wildlife and Fish Guideline WF15, Heritage Resources Guideline HR12.</i></p>		

Mineral and Geology Resources

Forest Service Manual direction for mineral management is in FSM 2800 - Minerals and Geology. Direction can also be found in 36 CFR 228, Subparts A through E.

DESIRED CONDITIONS

Exploration, development, and production of mineral and energy resources are conducted in an environmentally sound manner. Although some areas (designated wilderness, campgrounds, administrative sites, areas dedicated to recreation activities in a remote setting, and scenic areas, for example) are not available for exploration and development of federally owned minerals, most areas of the Forest remain available to mineral activities. Exploration and development of private mineral rights are consistent with deed terms and law, and make reasonable use of the land surface. Approved operating plans include appropriate mitigation measures. Operations are bonded commensurate with law or the costs of anticipated site reclamation. Sites are returned to a condition consistent with management emphasis and objectives.

Geologic processes, structure and materials are taken into account in the management of appropriate Forest resources. Geologic resources—including cave and karst features, springs and groundwater, ancient and recent landslides and debris flow, waterfalls, fossils and unique geologic features—are managed for public safety and to provide a balance between public enjoyment and protection of Forest resources.

Management Direction for Mineral and Geology Resources		
Type	Number	Direction Description
General Mineral Exploration and Development		
Goal	MG01	Make minerals available for exploration, development and production consistent with other appropriate uses and protection of the environment. Emphasize energy-producing minerals. Facilitate orderly and environmentally sound exploration, development, and production of mineral resources through standardized inspection, monitoring, and reporting requirements.
Goal	MG02	Emphasize appropriate mitigation and reclamation of environmental disturbance for all mineral exploration and development proposals. Reduce environmental effects from past mineral-related activity. Restore disturbed land to a productive condition.
Goal	MG03	Provide for reasonable access to and use of National Forest System (NFS) land surface for mineral activities. Allow for and support reasonable use of NFS land for the exercise of reserved and outstanding mineral rights consistent with deed terms and law.
Goal	MG04	Integrate mineral and geology project planning and implementation in a manner that is consistent with other resource management direction. Include collection and analysis of the appropriate geologic information as a part of Forest project planning and decision-making.
Objective	MG05	Inventory abandoned mines and prepare restoration plans to address biological and physical resource concerns, chemical stability, and human health and safety.
Objective	MG06	Keep 70 to 80 percent of federally owned oil and gas available for exploration, development and production.
Standard	MG07	Surface-disturbing exploration (including core drilling) is allowed except where prohibited by other Forest plan direction or as a result of site-specific analysis.
Standard	MG08	Site-specific mitigation measures shall be applied as needed to help protect other resources.

Management Direction for Mineral and Geology Resources		
Type	Number	Direction Description
Standard	MG09	Mineral exploration and development may be restricted to prevent unacceptable impacts to developed recreation sites, administrative sites, threatened and endangered species, or specially designated areas.
Standard	MG10	Applicants for private and federal mineral development proposals must submit an operating and rehabilitation plan for review.
Standard	MG11	Adequate sanitary, waste disposal and storage facilities must be provided during construction and operation to prevent possible contamination from human waste, oil, fuel, lubricants, and litter.
Standard	MG12	Mineral development and exploration near functioning stream channels shall comply with direction found in the Soil and Water section.
Standard	MG13	Roads no longer needed for operations shall be closed to vehicular traffic, unless other use is approved by the Forest. Bridges and culverts shall be removed if the road is not in the Forest Transportation System. Cross drains, dips, or waterbars shall be installed. In visually sensitive areas, the road surface shall be shaped to as near a natural contour as practicable and be stabilized.
Standard	MG14	Removal of timber on reserved and outstanding minerals is controlled by the deed. All other merchantable timber that must be cut for mineral development shall be marked by the Forest Service and sold to the operator at current market rates. All cut merchantable timber must be removed from NFS land or stockpiled in an area agreed upon by the Forest.
Standard	MG15	Reclamation shall include revegetating the site with native or desirable non-native, non-invasive species to control erosion and improve the visual quality of the site.
Standard	MG16	Waste rock, stumps, and soil shall be disposed of in approved locations.
Standard	MG17	The top 6 inches of soil shall be stockpiled and protected during the operation, and spread over the site as part of the revegetation and rehabilitation of the site.
Standard	MG18	The Forest Service has the responsibility to ensure that an archeological survey is made on sites where proposed mineral activity could affect cultural resources. If cultural resources are discovered, the operator shall assume the cost of evaluation and mitigation by a qualified archeologist. Archeologists conducting survey, evaluation, and/or mitigation for an operator must first secure a Special Use permit from the Forest Service.
Standard	MG19	When mineral developments are located within 500 feet of the boundary of a developed recreation area, seasonal restrictions shall be implemented to mitigate potential user safety hazards and user conflicts
Guideline	MG20	Mining sites should not be located on poorly drained soils as defined by the Soil Survey Report. If sites must be located on poorly drained soils, suitable mitigation measures should be instituted, and identified in the operating plan.
Guideline	MG21	The search for and development of mineral resources should be accomplished in a manner compatible with the resource values, environmental concerns, and management prescription for the area affected.
Guideline	MG22	The closure of National Forest System surface lands to land-disturbing mineral exploration or development should be based on Management Prescription direction or environmental analysis.
Guideline	MG23	Mineral activity areas should be secured against unauthorized visitors, using reasonable security measures such as gates and/or fencing. Signing and gating should be in accordance with the Manual of Uniform Traffic Control Devices.
Guideline	MG24	Mineral sites should avoid areas from which potable water supplies are being drawn. Intensive investigation may be required in limestone outcrop areas.

Management Direction for Mineral and Geology Resources		
Type	Number	Direction Description
Guideline	MG25	Unmerchantable slash created by road or site clearing within 100 feet of any road open to public vehicular traffic should be disposed of by lopping and scattering. Slash should not be piled and should lie within 3 feet of the ground. The Forest Supervisor may approve other uses for the slash. Sensitive view areas may require more intensive treatment of slash or treatment over a larger area.
Guideline	MG26	Use vegetative screening or structural design to visually blend project activities into the landscape.
Oil and Gas Leasing - Recreation		
Standard	MG27	Gas pipelines and gas well sites are not allowed within developed recreation areas.
Standard	MG28	Gas well sites are not allowed within 300 feet of a developed recreation area or Scenic Area.
Standard	MG29	No new gas/oil road construction is allowed within developed recreation areas. Road use by construction and gas drilling and development vehicles shall not be allowed during the primary recreation use season, which is determined for each developed recreation area.
Standard	MG30	Within 500 feet of the boundary of developed recreation areas or any designated Scenic Area, construction and gas drilling and development activities are not allowed during the primary recreation use season, which is determined for each developed recreation area. Routine and emergency maintenance of gas developments is allowed.
Standard	MG31	Construction, gas drilling, and development are not allowed within concentrated use areas designated by Forest Supervisor Order during the primary recreation use season, which is determined for each concentrated use area. Routine and emergency maintenance of gas developments is allowed.
Oil and Gas Leasing – Other Resources		
Standard	MG32	Gas well sites are not allowed in a wetland.
Standard	MG33	Pipelines are not generally allowed within a wetland. If a wetland cannot be avoided, pipeline construction may be allowed as long as the subsurface drainage patterns can be preserved and maintained. Any pipeline that crosses a wetland shall cross in a way that minimizes disturbance to the wetland.
Standard	MG34	Cave or groundwater contamination from gas or oil operations shall be avoided or mitigated.
Standard	MG35	Gas well sites are not allowed on administrative sites.
Standard	MG36	Within eligible river corridors with a Wild or Scenic classification, federal oil and gas leases may be issued only if subject to a stipulation that prohibits surface occupancy.
Oil and Gas Development		
Standard	MG37	Gas development activities shall not block or obliterate trails or campsites. These facilities shall be relocated to be at least 300 feet away from gas developments.
Standard	MG38	Drilling pits shall be located outside of channel buffers. Pits shall be obliterated after pit contents are removed.
Standard	MG39	Land application of drill pit liquids may be allowed, but only at Forest Service approved locations.
Standard	MG40	The pit liner shall only be left, and its solid contents encapsulated, with Forest approval.
Standard	MG41	Pipelines are allowed within channel buffers but shall be limited to essential crossings. Construction of pipelines running parallel to the stream shall be avoided.
Standard	MG42	No gas well sites are allowed within the buffer of any perennial water body. For all other (non-perennial) water bodies, every effort shall be made to locate gas well sites outside of the buffer. When circumstances make it impossible to keep the well site disturbed area outside of the buffer of non-perennial water bodies, special protection measures must be applied at the project level.
Standard	MG43	For well sites that have the potential to impact water quality, a plan that identifies emergency measures to prevent and contain accidental spills of contaminant must be prepared and submitted as part of the well drilling plan of operation.

Management Direction for Mineral and Geology Resources		
Type	Number	Direction Description
Coal Development		
Guideline	MG44	Favor lease proposals that are in conjunction with ongoing development of adjacent private coal.
Mineral Materials Development		
Standard	MG45	Surface-disturbing mineral materials operations under contract or permit shall be subject to: a) An approval of a plan of operations. b) Reasonable conditions as required to ensure proper protection of the environment and improvements. c) Timely reclamation of disturbed lands. Revisions of operating plans require similar approval.
Standard	MG46	An approved pit management plan is required for community pits and continuous use administrative pits.
Standard	MG47	Minerals shall not be sold at less than the appraised value. The Forest is responsible for appraising mineral materials.
Standard	MG48	Personal use mineral permits shall not authorize removal of material within stream channels or their banks, or within suitable Cheat Mountain salamander habitat or occupied TEP plant species habitat.
<p><i>See also Soil and Water Goal SW01, Soil and Water Standards SW03, SW04, SW43; Vegetation Standards VE13, VE22, VE23; TEP Standards TE06, TE18, TE19, TE20, TE33, TE39, TE46, TE47, TE49, TE50, TE52, TE53, TE58, TE59, TE66, TE67, TE71; Recreation Standard RC28, Heritage Resources Standards HR05, HR06, HR09; Roads and Facilities Standard RF04, Soil and Water Guidelines SW11, SW15, SW16, SW19, SW59; TEP Species Guideline TE77, Heritage Resources Guideline HR12, Lands and Special Uses Guideline LS33.</i></p>		



Natural Gas Well Site

Lands and Special Uses

Forest Service Manual and Handbook management direction for the Lands program and non-recreation special uses is in FSM 2700 - Special Uses Management, FSM 5400 - Landownership, FSM 5500 - Landownership Title Management, FSM 7150 - Surveying, and FSM 7700 - Transportation System, and in FSH 2709.11 - Special Uses, FSH 2709.12 - Road Rights-of-Way Grants, FSH 2709.15 - Hydroelectric, FSH 5409.12 - Appraisal, FSH 5409.13 - Land Acquisition, FSH 5409.17 - Rights-of-Way Acquisition, and FSH 5509.11 - Title Claims, Sales, and Grants. See also the Recreation Resources section in this Chapter for additional direction for recreation special uses.

DESIRED CONDITIONS

Public lands are managed for public benefit consistent with their primary purposes, and to prevent dissipation of their productive capacity over the short and long term.

The Lands Program manages the real property interests of the National Forest by protecting, managing and adjusting the publicly owned rights, title, and interest in the lands collectively known as the National Forest System (NFS).

The landownership status system is maintained to reflect accurate records of interests, including rights and reservations in lands, and is the starting point for all management actions taken on Forest units. It is regularly updated to reflect constant changes in landownership status information. It is regularly referred to by resource specialists and provides the basis for land management planning and programming of work by defining the boundaries, encumbrances, special uses, access, and ownership patterns that more clearly identify costs, overall needs, and opportunities for future management actions.

Consolidation of landownership is aimed at reducing management costs, reducing miles of landlines necessary to survey and maintain, reducing numbers of rights-of-way needed to access public lands, consolidating transportation systems, and providing more efficient fire protection.

A variety of tools are used to change interests in lands to provide more efficient and cost-effective administration. Land adjustments reflect Forest priorities for acquisition and conveyance. Landownership adjustments reduce limitations posed by private lands, rights, or authorizations. They provide public access to NFS lands that are isolated. Managers allow adequate time to accommodate needed adjustments prior to proposed management activities.

Proposed private uses of NFS lands are generally met on private lands. Conflicts between authorized special uses and other uses and resources are mitigated or eliminated.

Title claims and encroachments are acted on. Trespasses are investigated and offenders prosecuted.

Coordination with other federal, state, county, and local agencies, and affected individuals and interest groups is initiated to ensure awareness, involvement, and actions that benefit the public interest.

National Forest property boundaries and corners are located on the ground, monumented, marked, and posted to properly identify lands managed by the Forest. Pro-active efforts to mark and maintain property boundaries and educate and inform users and adjacent landowners result in reduced levels of unauthorized uses, encroachments, and user conflicts. Boundaries and corners are maintained to Forest Service standards to prevent their loss over time to damage and neglect. Well-established property lines support enforcement of Forest Service regulations.

Management Direction for Lands and Special Uses		
Type	Number	Direction Description
Landownership Adjustments		
Goal	LS01	Identify and seek adjustments to land ownership, National Forest boundaries, and partial interests to effectively meet public needs, to protect and enhance important resources, to consolidate NFS land, and to improve management efficiency.
Guideline	LS02	Normally, condemnation should not be used to acquire an interest in land that the owner is not willing to sell. However, when an owner refuses to sell a needed interest in property, the Forest Supervisor may request condemnation action from the Secretary of Agriculture to clear defective title or to acquire high-priority property or rights-of-way needed for specific development programs.
Guideline	LS03	Scenic easements may be obtained in lieu of fee acquisitions when practical and where management objectives are compatible. Generally scenic easements should serve some special area that is of exceptional value for outdoor recreation or critical habitat.
Guideline	LS04	<p>Federal land conveyances by exchange or other specific authority should be guided by the following criteria (not listed in any order of priority):</p> <ul style="list-style-type: none"> a) Lands inside or adjacent to communities or intensively developed private land, and chiefly valuable for non-National Forest System purposes. Lands that support community expansion. b) Parcels that will serve a greater public need in state, county, city, or other federal agency ownership. c) Inaccessible parcels isolated from other NFS lands. Parcels intermingled with private lands. d) Parcels under long-term special use permits whose use and purpose are not substantially consistent with National Forest purposes and character. e) Parcels having boundaries, or portions of boundaries, with inefficient configurations (projecting necks or long, narrow strips of land, etc.) Lands that support more logical and efficient management. f) Parcels eligible for disposition under the Small Tracts Act or other statutory authorities. g) Lands that do not have TEP or RFSS species habitat, wetlands, rare communities, or other outstanding resource values. <p>Exchanges should be advantageous to both parties. Avoid encumbering lands identified for exchange with uses that compromise land exchange opportunities.</p>

Management Direction for Lands and Special Uses		
Type	Number	Direction Description
Guideline	LS05	<p>Acquisitions of land and interests in lands should be guided by the following criteria:</p> <ul style="list-style-type: none"> a) Lands with water frontage such as lakes, rivers, and streams. b) Lands needed for protection of TEP fish, wildlife, or plant species. c) Other environmentally sensitive lands, such as important wetland and riparian areas and cave resources. d) Lands needed for protection of significant historical or cultural resources when these resources are threatened or when management may be enhanced by public ownership. e) Lands that enhance recreation opportunities, public access, and protection of aesthetic values. f) Lands needed for protection and management of administrative and congressionally designated areas. g) Lands needed to obtain more efficient land ownership patterns and reduce expenses of both the Forest Service and the public in administration and utilization. h) Lands with water rights or resources that can be used to accomplish management objectives or related resource obligations. i) Major corporate parcels that become available. j) Lands or partial interests needed to reunite or consolidate split estates. k) Lands or partial interests needed to achieve the objectives of public law or regulation. l) Lands needed to protect resource values by eliminating or reducing fire risks, soil erosion, or occupancy trespass. <p>Other acquisitions may be considered that promote more effective Forest management or benefit the priority acquisitions listed above.</p>
Rights-of-Way		
Goal	LS06	Acquire, grant, and/or exchange for legal access to meet the needs of planned resource management activities and public and administrative access.
Standard	LS07	Easement acquisition shall conform to right-of-way planning and shall include existing Forest Transportation System roads and trails as well as project-related new construction.
Guideline	LS08	Rights-of-way for county roads, state highways, and major utility improvements should be conveyed when such conveyances are in the long-term interest of the Forest and the public.
Guideline	LS09	Where feasible, exchange of easements, co-op agreements, and cost-share supplements should be considered as alternatives to purchase of rights-of-way.
Guideline	LS10	Rights-of-way should be acquired at least one year prior to placing timber sale related or other activity Performance Accomplishment Reporting targets on annual Programs of Work if the accomplishments are dependent on the rights-of-way acquisition.
Boundaries		
Goal	LS11	Maintain boundary lines between NFS lands and other ownerships that have been surveyed, posted, and marked to keep them visible, to protect the investment, and to deter encroachment.
Goal	LS12	Identify and resolve trespass uses, title claims, and encroachment occurring on NFS lands, and act to reduce the likelihood of future trespass.
Standard	LS13	Locate and post NFS land boundaries before implementing management activities near or adjacent to lands not under Forest Service management.
Standard	LS14	Locate and post wilderness boundaries before implementing management activities that may conflict with nearby designated wilderness.
Standard	LS15	Include protection measures for marked property boundaries and corners in authorizations, contracts, agreements, plans of operations, and internal management activities where the potential for disturbing property markers exists. Damage to or loss of marked property boundaries or corners shall be repaired by the appropriate party or management function.

Management Direction for Lands and Special Uses		
Type	Number	Direction Description
Guideline	LS16	Ownership boundary lines should be surveyed, marked, and posted according to the following priorities: a) Where known litigation is pending or a title claim has been asserted. b) Where significant resource values exist and utilization or manipulation of these resources are planned. c) Where encroachment activity by adjoining owners is suspected or known to exist or may occur in the near future. d) Where there is high risk for potential or planned outside development adjacent to NFS lands. e) All remaining property lines.
Special Uses		
Goal	LS17	Proposed special uses of NFS lands—such as hydroelectric development, wind energy development, communication sites, water developments, and utility corridors—are considered that meet public needs, are consistent with direction for other Forest resources and management prescriptions, and cannot be accommodated off the National Forest.
Goal	LS18	Special use authorizations are issued for uses that: a) Serve the public, b) Promote public health and safety, c) Protect the environment, and/or d) Are legally mandated.
Goal	LS19	Work with utilities and others to minimize the use of NFS lands for utility corridors, and to share existing corridors when feasible.
Goal	LS20	During watershed or project-level analysis, identify existing or proposed special uses that may contribute to resource degradation, and implement measures to mitigate or eliminate effects where feasible.
Goal	LS21	Phase out existing special uses that are not compatible with management objectives.
Standard	LS22	Recreation residence Special Use permits shall not be approved.
Standard	LS23	Special use permits shall not be issued for the sale or disposal/removal of topsoil.
Standard	LS24	Require adequate bonds or other security instruments for special-use authorizations if the use has potential for disturbance that may require rehabilitation or when needed to ensure other performance.
Standard	LS25	Proposals for utility and communication facilities outside existing sites or corridors shall be considered only after improvement or expansion of existing facilities is determined to be inadequate or impractical.
Standard	LS26	Permittees who operate facilities on NFS lands shall meet the same environmental standards as those applied to Forest Service facilities.
Guideline	LS27	Formation of user associations are preferred to individual special-use permits and rights-of-way in common use facilities, uses, or areas. Multiple permits to the same organization should be incorporated into one permit if this facilitates permit administration.
Guideline	LS28	Modifications of existing authorizations should be prioritized based on the current and potential negative effects on human health and safety and resource values.
Guideline	LS29	Access to authorized improvements for maintenance needs should be addressed as part of Special Use authorizations. Where appropriate access is not addressed in existing authorizations, the authorizations should be amended to include it.
Guideline	LS30	Utility corridor widths may be expanded beyond the minimum to achieve scenery and wildlife objectives.
Guideline	LS31	New power lines, less than 34.5 KV, and telephone lines should be placed underground, unless analysis indicates this is not in the public interest, will cause excessive disturbance to other resources, or is impractical due to rocky or other prohibitive conditions.

Management Direction for Lands and Special Uses		
Type	Number	Direction Description
Guideline	LS32	Where feasible, special use rights-of-way on NFS lands should provide wildlife food and cover plants. Vegetation on rights-of-way may be selectively maintained to benefit wildlife and species diversity. The use or unintentional introduction of non-native invasive species should be aggressively avoided.
Guideline	LS33	Fill, consisting of soil and rock materials (not including topsoil) should normally not be sold, disposed of, or removed from NFS lands, unless it is in the public interest. When circumstances warrant, however, fill may be sold or otherwise distributed under a minerals permit.
Guideline	LS34	Commercial service developments and occupancy under permit may continue when in agreement with area objectives. New commercial development should not occur on NFS lands, unless the use of that land is necessary to provide high quality public services that are compatible with the area's objectives.
Guideline	LS35	Authorization holders may be required to post a bond to cover future project costs of road decommissioning associated with new structures such as dams, towers, and large buildings.
Guideline	LS36	Negative effects of special use practices or facilities should be mitigated, where feasible, through measures such as changes in management strategy or practices, discontinuance, relocation, closure, or alteration.

See also Vegetation Goal VE15, Scenery Goal SM01, Vegetation Standards VE13, and VE22; Soil and Water Standard SW34, TEP Species Standards TE16, TE38, TE45, TE48; Recreation Standard RC28, Heritage Resources Standards HR05 and HR06, Minerals Standard MG18, Roads and Facilities Standards RF04 and RF27, Soil and Water Guideline SW61, Vegetation Guidelines VE21 and VE25, Scenery Guideline SM07, Heritage Resources Guideline HR12, Range Guideline RA07.



Spruce Knob Communication Site

Roads and Facilities

Forest Service Manual and Handbook management direction for facilities and roads is in FSM 5460 - Right-of-Way Acquisition, FSM 7100 - Engineering Operations, FSM 7300 - Buildings and Other Structures, FSM 7400 - Public Health and Pollution Control Facilities, FSM 7500 - Water Storage and Transmission, FSM 7600 - Electrical Engineering, and FSM 7700 - Transportation System; FSH 5409.17 - Rights-of-Way Acquisition, FSH 7309.11 - Buildings and Related Facilities, FSH 7409.11 - Sanitary Engineering and Public Health, FSH 7509.11 - Dams Management, FSH 7709.55 - Transportation Planning, FSH 7709.56 - Road Preconstruction, FSH 7709.56b - Transportation Structures, FSH 7709.57 - Road Construction, FSH 7709.58 - Transportation System Maintenance, and FSH 7709.59 - Transportation System Operations.

DESIRED CONDITIONS

The road network matches the level of management activities occurring on the Forest and supplies the transportation system needed for recreation, special uses, timber harvest, range management, minerals development, fire protection, and other resource management needs. The transportation network is managed, using a variety of tools, to reduce adverse effects to resources. Roads needed for long-term objectives are maintained to provide for user safety and resource protection. Roads not needed for long-term objectives are decommissioned and stabilized.

Facilities are developed to the standard adequate for their intended purpose. Reconstruction and remodeling of existing facilities, and construction of new facilities, occur as facilities wear out or need to change. Facilities are safe, efficient, and meet land and resource management objectives.

Management Direction For Roads and Facilities		
Type	Number	Management Direction Description
Transportation Planning and Development		
Goal	RF01	Provide a transportation system that is safe, cost efficient, meets access needs, and minimizes adverse impacts to natural resources.
Goal	RF02	Provide developed roads to the density and maintenance level needed to meet resource and use objectives. During watershed or project-level planning: <ol style="list-style-type: none"> Update inventory of area transportation system. Determine the minimum transportation system necessary to achieve access management objectives. Incorporate cost efficiency into construction, reconstruction and maintenance needs. Identify roads to decommission, obliterate, replace, or improve that are causing resource damage. Integrate needs for off-road parking.
Objective	RF03	Over the next decade, decommission or reclaim at least 30 miles of roads that are no longer needed for achieving access management objectives. These can include system roads and old woods roads. Actions may range from full obliteration to administratively removing a road from the transportation system as long as it poses no resource impacts without additional rehabilitation efforts.

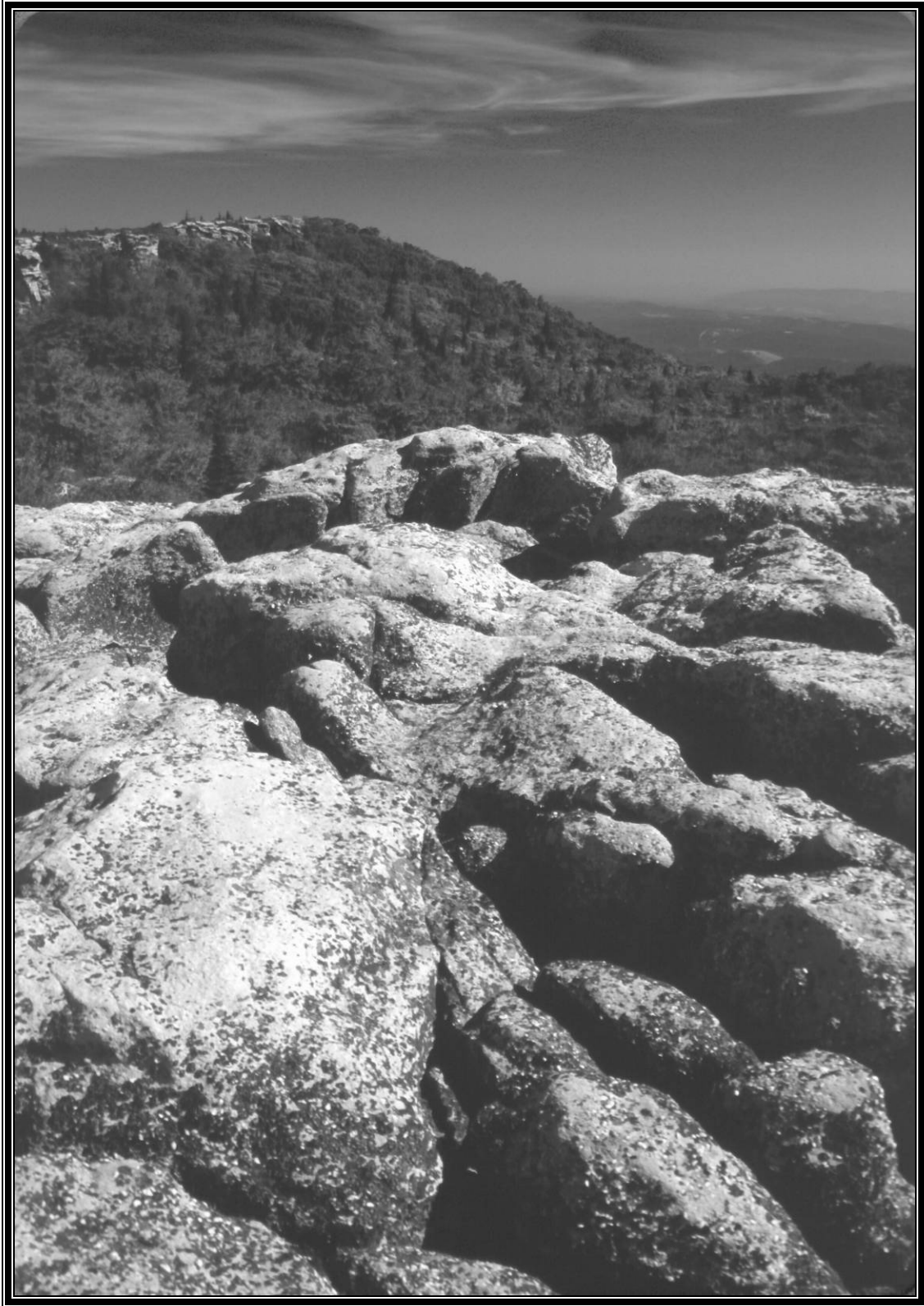
Management Direction For Roads and Facilities		
Type	Number	Management Direction Description
Standard	RF04	Roads shall be constructed to the standard appropriate to their intended use, considering safety and other resource concerns.
Standard	RF05	Cooperators or permittees may be allowed to locate, design, and build special purpose roads on NFS lands (i.e., mineral access or special land uses). The Forest shall review all such locations and designs, and approve them where appropriate. Location and standards shall be coordinated with the needs for management and for protection of other resources.
Standard	RF06	New road construction shall avoid wetlands where feasible. If a wetland cannot be avoided, road construction may be allowed as long as the subsurface drainage patterns can be preserved and maintained. Any road that would cross a wetland shall cross in a way that minimizes disturbance to the wetland.
Standard	RF07	Where new roads cross streams or high-risk areas, disturbed soils shall be stabilized and designed drainage structures shall be installed as soon as practical. High-risk areas include landslide prone areas, steep slopes, and highly erosive soils.
Guideline	RF08	In support of road management decisions, use an interdisciplinary science-based roads analysis process such as Roads Analysis: Informing Decisions About Managing the National Forest Transportation System (USDA FS, 1999 Report FS-643).
Guideline	RF09	Evaluate existing routes during transportation planning to determine whether they should be retained, reconstructed, replaced, or decommissioned. Evaluate transportation needs based on existing uses and condition, the access needs of cooperators, permittees, and private landowners, environmental and economic impacts, and compatibility with management prescriptions. Coordinate evaluation with information in the Roads Analysis Report for the Monongahela National Forest (January 2003) or updated versions.
Guideline	RF10	During watershed or project-level analysis, opportunities for road decommissioning should be identified and prioritized based on: <ul style="list-style-type: none"> a) Hazard assessments in the Roads Analysis Report for the Monongahela National Forest (January 2003) or updated versions b) Identified needs in drainages with 303(d) impaired water bodies c) The access needs of cooperators, permittees, and private landowners d) Prescription units that exceed road density standards for the management prescription e) Other site-specific concerns identified in the watershed or project analyses.
Guideline	RF11	The process to determine road maintenance levels should evaluate the purpose of the road, the type of vehicles expected, the duration and frequency of use, and necessary environmental protection measures.
Guideline	RF12	Roads that are no longer needed for access or management should be decommissioned. Evaluate long-term access needs and potential trail conversion or linear wildlife opening opportunities prior to making a decision to decommission a road.
Guideline	RF13	Road decommissioning should include the following: <ul style="list-style-type: none"> a) Road should be physically blocked to prevent vehicle use, unless designated for use by trail vehicles. b) Drainage structures should be removed and natural drainage re-established, unless needed for use by trail vehicles. c) The road profile should not normally be returned to contour during decommissioning, but recontouring may occur to meet special environmental or visual needs. d) Exposed soils should be revegetated and natural plant succession should be allowed to occur, unless needed for trail purposes. e) Decommissioning should normally be accomplished in conjunction with other project work but may occur independently if funding is available.
Guideline	RF14	Temporary roads may be constructed and used to provide for short-term management access needs.
Standard	RF15	Temporary roads shall be rehabilitated and returned to productivity following their use.

Management Direction For Roads and Facilities		
Type	Number	Management Direction Description
Guideline	RF16	Work with intermingled and adjacent landowners and local governments to develop roads or road systems that serve the needs of all parties.
Transportation System Operation		
Goal	RF17	Maintain Forest system roads in accordance with the Maintenance Management System to best meet management objectives within available funding.
Goal	RF18	Continue to develop Forest information on road and trail access, and update as needed.
Standard	RF19	Public motorized vehicle use is allowed on roads and trails designated open for use. Off road or trail use is not allowed. Off road motor vehicle travel restrictions do not apply to: 1) military, fire, emergency, law enforcement or administrative vehicles when used for official or emergency purposes, and 2) other vehicle use allowed by written authorization from the Forest Supervisor or District Ranger.
Guideline	RF20	Vehicle use on closed roads by permittees, contractors, or other cooperators may be authorized to conduct official business or to perform resource management activities.
Guideline	RF21	The Forest may allow others to plow snow on Forest System roads if the plowing follows Forest Service Engineering Specifications.
Guideline	RF22	Use the Forest Motor Vehicle Use Map to identify whether a National Forest System road or trail is open, restricted, or closed to motor vehicle use.
Guideline	RF23	Seasonal or year-round road closures may be used to: <ul style="list-style-type: none"> a) Reduce road maintenance costs. b) Minimize user conflicts. c) Provide for recreation activities. d) Enhance wildlife habitat. e) Reduce road use impacts to other resources. f) Address public safety.
Guideline	RF24	Road and trail management direction should be reviewed on a case-by-case basis as public issues or management concerns are identified for a specific road or trail. District Rangers should prepare an environmental analysis addressing issues and concerns to determine if a change in management direction is needed.
Guideline	RF25	Information should be made available to the public to communicate specific management decisions about public motor vehicle use on Forest system roads and trails.
Facilities		
Goal	RF26	Provide and maintain safe and efficient Forest facilities that meet resource management and public service needs.
Goal	RF27	Manage the Forest telecommunication system and related facilities in accordance with the Forest Communication Plan and established national telecommunication standards.
Goal	RF28	Identify facilities that are not needed and evaluate for disposal or decommissioning.
Standard	RF29	Ensure that potable water provided at any public or administrative facility is safe to drink.
Guideline	RF30	Building and structure architectural designs should follow principles and concepts outlined in the Built Environment Image Guide (BEIG) or other appropriate guide.
Highland Scenic Highway		
Standard	RF31	Commercial traffic may only be allowed on the Parkway portion of the Highland Scenic Highway by written permission under one of the following conditions: <ul style="list-style-type: none"> a) The proposed use is advantageous for reasons of public safety, environmental protection, or resource management objectives. b) The proposed use is related to the construction, maintenance, or management of the Parkway, associated facilities, or the highway corridor. c) The proposed user has a legal right of access through deed, easement, or permit.
Guideline	RF32	Related recreation facilities and visual enhancement projects should be included in Highland Scenic Highway plans and projects.

Management Direction For Roads and Facilities		
Type	Number	Management Direction Description
<p><i>See also Soil and Water Goals SW32 and SW33, Recreation Goals RC01, RC05, RC07, RC11, RC12; Lands and Special Uses Goal LS06, Recreation Objective RC13, Soil and Water Standards SW04, SW34, SW35, SW36, SW37, SW44, SW45, SW46; Vegetation Standards VE13, VE2, VE22; TEP Standards TE21, TE51, TE56, TE67, TE71; Recreation Standards RC18, RC20, RC28; Heritage Resources Standards HR05, HR06, HR09; Timber Standard TR08, Minerals Standards MG09, MG13, MG35; Lands and Special Uses Standard LS07, Soil and Water Guidelines SW11, SW14, SW19, SW51, SW60, SW62; TEP Species Guidelines TE74, TE76, TE77, TE81, TE83; Wildlife and Fish Guidelines WF17, WF19, WF20; Recreation Guidelines RC29 and RC31; Scenery Guidelines SM02, SM03, SM05; Heritage Resources Guideline HR12, Timber Guidelines TR10, TR11, TR17, TR18; Lands and Special Uses Guidelines LS07, LS08, LS09, SL10, LS28, LS37.</i></p>		



Forest Road – Maintenance Level 4



Dolly Sods Scenic Area