

**MANAGEMENT  
AREAS**

Management areas are "areas of the Forest with similar management objectives where compatible management prescriptions<sup>1</sup> are applied." The Revised Plan is based on a system where lands managed to achieve complementary objectives under the same standards<sup>2</sup> are allocated to the same management area. Twenty-two management areas were developed to accommodate the variety of desired management activities, products, services, and conditions identified by the public. Each of the 14 alternatives considered in detail in the Final Environmental Impact Statement (FEIS) used a different combination of these management areas in achieving a distinct forest management theme. Appendix B of the FEIS contains a discussion of the 22 different management areas used in formulating the 14 alternatives. The Revised Plan -- a detailed and expanded version of the preferred alternative -- utilizes 18 of the 22 management areas. Each of the 18 management areas is described in detail in the pages following, beginning with acres per management area in Table 3-1.

**Table 3-1. Management Area Acreage by Thousands of Acres**

	Management Area	Per Management Area	Percent of Forest	Unsuitable Acres <sup>3</sup>	Suitable Acres <sup>3</sup>
4	Special Interest/Research Natural Areas	70	7%	70	
5	Sensitive Viewsheds	10	1%	10	
6	The Appalachian Trail	9	1%	9	
7	Scenic Corridors/Highland Scenic Tour	39	3%	27	12
8	Wilderness/Wilderness Study	44	4%	44	
9	Remote Highlands	141	13%	141	
10	Scenic/Recreational Rivers	8	.8%	8	
11	All-Terrain/Off Highway Routes	11	1%	8	3
12	Developed Recreation Areas	2	.2%	2	
13	Dispersed Recreation Areas	42	4%	38	4
14	Remote Habitat for Wildlife	133	13%	85	48
15	Mosaics of Wildlife Habitat with Freedom from Continued Disturbance	331	31%	139	192
16	Early Successional Forested Habitat for Wildlife	39	3%	12	27
17	Timber Emphasis	91	9%	28	63
18	Riparian Areas with Ecological Widths	21	2%	20	1
20	Administrative Sites, Utility Corridors, and Communication Sites	4	.4%	4	
21	Special Mgt. Areas, Nat. Scenic Area	60	6%	60	
22	Small Game and Watchable Wildlife	6	.6%	6	
	<b>TOTAL</b>	<b>1,051</b>	<b>100%</b>	<b>711</b>	<b>350</b>

<sup>1</sup>See Appendix B of the EIS for a discussion of the prescriptions used in formulating alternatives.

<sup>2</sup>The NFMA Regulations require the identification of *standards and guidelines* for each management area. These regulations, however, provide no insight as to any difference between a standard and a guideline. Therefore the term *standard* is considered synonymous with *standard and guideline* in this Revised Plan.

<sup>3</sup>The categories Unsuitable Acres and Suitable Acres refer to acres classified as unsuitable for timber production and acres classified suitable for timber production.

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**MANAGEMENT  
AREA 4  
Special Interest  
Areas  
Research Natural  
Areas**

This 70,000-acre management area contains lands that are managed to maintain and protect significant biological, historical, geological values. All lands are classified as unsuitable for timber production.

The lands in this management area are designated as either Special Interest Areas -- biologic, historic, or geologic -- or as Research Natural Areas. The two designations share a common goal: the protection of unique resource values.

Special Interest Areas with a biological emphasis and Research Natural Areas will be nominated for placement on natural areas registries maintained by the Virginia Department of Conservation and Recreation and the Virginia and West Virginia chapters of The Nature Conservancy. These voluntary agreements recognize the protection and management of natural areas for specified natural heritage resource values. In the meantime, the Forest's designation of biologic, historic, and geologic SIAs occurs with the adoption of the Revised Plan.

Little Laurel Run and Ramseys Draft were designated as Research Natural Areas in the 1930s. Ramseys Draft RNA is now within the Ramseys Draft Wilderness and is therefore allocated to Management Area 8.

Six areas (Big Levels, Laurel Run, Maple Flats, Shale Barren-Complex, Skidmore and Slabcamp/Bearwallow) have been identified as candidates for consideration and possible RNA designation. Five of these areas are currently in Management Area 4, Special Interest Areas, and Laurel Fork is in Management Area 21. Possible future designation of an area as an RNA does not affect traditional uses such as hunting, fishing, hiking, and berry picking. Travel by foot is allowed as well as motorized travel along open roads.

**SIAs - BIOLOGIC**

Special Interest Areas-Biologic include lands that support key components and concentrations of the Forest's biological diversity. These areas typically include high quality natural communities such as high elevation mountain tops, shale barrens, caves and karst features, wetlands, and habitat for threatened, endangered, and sensitive (TES) species. Old growth forest types now occur in some Special Interest Areas and additional acres will develop in future years.

Thirty-eight Special Interest Areas-Biologic, a total of about 26,000 acres, are designated with the adoption of the Revised Plan.

- Special Uses* 5-13. New special uses are issued only where there is an over-riding demonstrated public need or benefit. Access to privately owned property is permitted when other access is impractical or infeasible.
- Timber and  
Other Vegetation* 5-14. Vegetation management for wildlife habitat improvement, recreation, visual resource enhancement and/or rehabilitation may occur.
- 5-15. Salvage of dead, dying, or damaged trees using ground-based or helicopter logging methods can occur if provides safety or scenic rehabilitation. Salvage must be accomplished from existing roads without additional permanent road construction.
- Wildlife* 5-16. Existing wildlife openings and other improvements are maintained.
- 5-17. New wildlife habitat improvements may be provided for game and non-game species.

**MANAGEMENT  
AREA 6  
The Appalachian  
Trail**

The Appalachian National Scenic Trail (AT), a continuous footpath from Maine to Georgia, was designated as a National Scenic Trail by act of Congress in 1968. The AT is an internationally renowned footpath that extends 2,150 miles from Maine to Georgia and passes through four states and six national forests in Region 8. The AT is located primarily along the crest of the Appalachian Mountains.

Ten-thousand-acre Management Area 6 contains approximately 58 miles of the AT, the lands mapped as the foreground viewing area, and, as designated on a case-by-case basis, associated trail shelters, viewpoints, water sources, and spur trails to these features. All are on the Pedlar Ranger District. The foreground viewing area is determined using the methodology established in the national Forest Service Landscape Management Handbook, Volume 2, chapter 1. The corridor is defined as 100 feet, or the foreground viewing area, on either side of the trail, whichever is greater. This management area also includes all National Forest System lands administratively transferred to the USDA - Forest Service by the National Park Service under a memorandum of agreement. The portions of the AT that pass through the Three Ridges and The Priest roadless areas are allocated to Management Area 8.

Management practices protect the trail experience, strengthen the role of the volunteer, provide opportunities for high quality outdoor recreation experiences. Practices also provide for the conservation and enjoyment of the nationally significant scenic, historic, natural, and cultural qualities of the land through which the AT passes. Adjoining lands seen from the AT are managed for multiple use under the provisions of this Revised Plan in a manner that reasonably harmonizes with and is complementary to the AT experience. Management Area 6 is classified as unsuitable for timber production.

Management Area 6 provides for the protection, management, development, and use of the AT in accordance with the National Trails System Act (P.L. 90-543). The provisions of Management Area 6 are carried out through the Cooperative Management System as defined in the Appalachian Trail Comprehensive Plan. The AT is administered by the Secretary of Interior in consultation with the Secretary of Agriculture and is managed as a partnership among the Forest Service, local Appalachian Trail clubs -- Natural Bridge, Old Dominion, and Tidewater -- and the Appalachian Trail Conference (ATC).

**The Desired Future**

The Forest appears natural to the visitor. It is a mosaic of predominately mature hardwood forest and scenic vistas. The Visual Management System is used to enhance the visual experience or landscape character seen from the AT. Management activities needed to preserve or create vistas and open meadows receive high priority. Public safety is provided for the hikers. A variety of recreational activities are available such as hiking, hunting, viewing scenery, and dispersed camping. Opportunities for viewing wildlife from the AT are enhanced and wildlife habitat improvements are developed that complement the AT.

Insects and diseases are controlled and threatened, endangered, and sensitive species are protected.

**Standards**

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Adherence to the following standards is required when implementing the Revised Plan in Management Area 6. These standards are in addition to the applicable Common Standards at the end of this chapter.

6-1. All management practices will comply with the Comprehensive Plan for the Protection, Management, Development and Use of the Appalachian National Scenic Trail, September, 1981; and FSM 2353, R-8 Supplement No. 42, 9/83. All management practices will be guided by the Appalachian Trail conference Stewardship Manual: Trail Design, Construction and Maintenance, 1981; and Overnight-Use Management Principles, approved by the Appalachian National Scenic Trail Advisory Council (ANSTAC), 1977.

6-2. Volunteer agreements with the local A/T clubs are reviewed and renewed annually.

6-3. The Ranger District will participate in the established local management planning process described in the ATC Local Management Plans.

6-4. All activities that impact the management area are planned and carried out in consultation with ATC and the local trail club, based on the ATC trail assessment process. A work planning session is conducted with local AT clubs at least once annually.

*Aesthetics*

6-5. The Visual Management System (VMS) is used to enhance the visual experience or landscape character seen from the Appalachian Trail and from designated shelters, viewpoints, campsites, water sources, and the spur trails linking these features. Management activities needed to preserve or create vistas and open areas are high priority. VMS mapping is done during leaf-off season.

6-6. The area mapped foreground from the AT footpath and designated viewpoints, shelters, campsite, water sources and spur trails to these features, will have a VQO of retention. Lands outside the management area, are managed in accordance with the adopted VQO (see *USDA Agriculture Handbook, No. 462 – National Forest Landscape Management Volume 2. Chapter 1, The Visual Management System*, P. 43). This may include assigning a short-term VQO of rehabilitation or enhancement.

6-7. Site specific projects that may affect the visual resource and the adopted VQOs are coordinated with ATC, the local trail club, and other interested groups or individuals.

- Cultural Resources* 6-8. Where appropriate, interesting cultural sites are interpreted through maps, guidebooks, and signs. The Forest Archeologist will inventory cultural and historic resources and will recommend appropriate interpretive opportunities.
- Fire* 6-9. All wildfires are controlled at the smallest practical size at all fire intensity levels.
- 6-10. Prescribed fire may be used to maintain or enhance fire-dependent plant communities and for wildlife habitat improvement.
- 6-11. Where practical, avoid placing motorized equipment on the AT.
- Lands* 6-12. Lands, or interest in lands, inventoried in the Appalachian National Scenic Trail Land Acquisition Inventory for Regions 8 and 9 are acquired to meet management objectives. The inventory's accuracy is reconfirmed through the Optimal Trail Location Review. Further acquisition direction is provided on page E-4 of Appendix E.
- Minerals and Geology* 6-13. The area is available for oil and gas leasing with "no surface occupancy" stipulations in the Foreground Visual Zone. The area is unavailable for other leasable minerals and common variety minerals.
- 6-14. Where outstanding or reserved mineral rights are involved, determination of the need for acquisition for protection of trail values is made and acted upon (see Lands).
- 6-15. Important geological features are inventoried for potential interpretation to enhance the experience of users of the Appalachian Trail.
- Recreation* 6-16. Lands within this management area are managed under three recreation opportunity classes. Lands inventoried as roaded natural remain roaded natural. Lands inventoried as semi-primitive motorized adopt a recreation opportunity class of semi-primitive motorized (subclass 2). Lands inventoried as semi-primitive non-motorized remain semi-primitive non-motorized. See the *Transportation Network and Recreational Opportunities* map accompanying the Revised Plan.
- 6-17. Additional development of recreational facilities is limited to those compatible with the Appalachian Trail. Existing facilities are managed to meet trail hiker needs.
- 6-18. Site specific projects that may affect the ROS class are coordinated with ATC, the local club, as well as other interested publics.

6-19. Facilities are limited to shelters, privies, stiles, spring boxes, registers, trailheads, and other facilities mutually agreed to by the Conference, Clubs, and the Forest Service.

6-20. Deleted by Amendment #2.

6-21. Designated trail shelters, privies, viewpoints, water sources, and spur trails leading to them will have a mapped foreground zone included in the management area. An on-the-ground assessment involving ATC, FS, and local AT club representatives will determine which features are associated with the local AT experience.

6-22. Access by vehicle to trail shelters is limited to access for administrative purposes only. Open roads within 1/2 mile of shelters are minimized.

6-23. Where feasible, locate new shelters no closer than two miles from open roads and other access points.

6-24. Trail shelters and related facilities are managed, constructed and maintained in accordance with the ATC Overnight Use Principles and the responsible AT club local management plan.

6-25. Primitive camping is allowed where suitable, but recreation facilities are not constructed within 100 feet of the AT.

6-26. No motorized travel is permitted except where the AT is on an open road or where an open road crosses the AT. Vehicular use is otherwise limited to emergency purposes.

6-27. Horse and bicycle use are prohibited on the AT, and the AT is managed to exclude such use.

6-28. Existing portions of the AT are reconstructed or relocated as needed to enhance the recreation experience and protect trail-related and other resources, and to provide a reasonable level of public safety.

6-29. Trail relocation improvements do not cause a progressive loss of the primitive quality or simplicity of the footpath.

→ 6-30. Decisions about relocation of portions of the AT are based on the Optimal Trail Location Review and follow approved relocation procedures described in FSM 2353, R-8 Supplement No. 42, 9/83. Ensure that relocations provide a trail environment that is equal to or better than that of the existing location.

6-31. The Appalachian Trail is identified through signs and blazes. Sufficient signing is provided to inform hikers of significant features and distances to major road crossings. Signing is consistent with the Sign Handbook (FSH 7109.11) except mileage to important features should be shown to the nearest tenth of a mile. The treadway is designed according to soil, drainage, vegetation, topography, and other constraints. Safety is considered in trail design, construction and maintenance, without sacrificing the aspect of the AT which challenges a hiker's skill and stamina.

6-32. Trails are constructed/reconstructed and maintained according to *Appalachian Trail Conference Stewardship Manual: Trail Design, Construction and Maintenance, 1981*.

*Roads*

6-33. Parallel and crossing roads are not compatible with trail values. Hold to a minimum the number of system roads within 1/2 mile of the AT.

6-34. All roads crossing or paralleling the AT within 1/2 mile are analyzed for their potential undesirable impacts on the hiker and documented as appropriate. Road locations are allowed that are the only feasible and prudent alternative and after all impacts have been minimized. (See FSM 2353.4-3(e), R-8 Supplement No. 42, 9/83).

6-35. Where feasible, parking facilities are provided at locations where the Appalachian Trail can be accessed by a short spur trail rather than at locations where the AT footpath crosses a road.

*Soil and Water*

6-36. The AT treadway and trail facilities are designed, constructed, and maintained to minimize its impacts on the natural resources of the AT and its surroundings.

6-37. All shelters, toilets, and primitive camps are located to minimize the possibility of contamination of water sources. Users are educated on low impact camping methods that protect water sources. See FSM 2353.4--12(c), R-8 Supplement No. 42, 9/83.

6-38. Watershed improvement projects are developed and implemented on (1) areas where erosion is due to man-caused activities, and (2) critical areas where erosion is due to natural causes.

*Special Uses*

6-39. New special uses are issued only where there is an over-riding demonstrated public need or benefit. Access to privately owned property is only permitted when other access is impractical or infeasible.

6-40. When issuing new special use permits, full mitigation measures to protect the AT values and environment are applied.

6-41. The impacts of utility right-of-way clearing are minimized within the Appalachian Trail management area.

6-42. The broadcast application of herbicides for control of vegetation in utility right-of-ways is prohibited within the Appalachian Trail management area.

6-43. A landscape management plan using screening, feathering, and other vegetation management techniques is required to mitigate the visual and other impacts of new, upgraded or re-authorized utility right-of-ways.

*Vegetation →  
Management*

6-44(a). The Appalachian Trail management area is unsuitable for timber production.

6-44(b). Vegetation in the Appalachian Trail management area is managed to enhance the AT environment. Timber activities are limited to improving health of the stand, providing scenic vistas, controlling insects and disease, attracting wildlife, or for providing public safety or resource protection such as threatened and endangered species habitat. Timber volumes are non-chargeable. The ATC and the local trail club are consulted on any timber management activity that may affect the AT experience.

6-45. Timber sales, prescribed burning, hand tools, power tools, and herbicides are used as appropriate to control vegetation that affects the AT.

*Timber and →  
Other Vegetation*

6-46(a). Timber management activities visible from the AT but outside the management area are modified to reduce negative impacts from the hiker's view in accordance with the visual management system.

6-46(b). Salvage of dead, dying or damaged trees can occur from existing roads to provide for scenic rehabilitation or public safety using ground-based or helicopter logging methods without additional road construction.

*Wilderness →*

6-47(a). The AT is managed within designated wilderness in accordance with the Wilderness Act of 1964, the specific area designating act, standards in Management Area 8, and the wilderness implementation schedule.

6-47(b). Existing facilities within wilderness areas may be maintained, but new facilities will not be constructed. See FSM 2353.4--3 (f).

*Wildlife*

6-48. Habitat improvements are developed that are complimentary to the AT. Such improvements are accomplished within visual management and ROS

guidelines, objectives, and standards. Habitat management practices along the AT that will enhance wildlife viewing opportunities are emphasized.

6-49. An inventory of proposed, endangered, threatened and sensitive species is conducted and maintained within the Area, in cooperation with ATC and the Virginia Division of Natural Heritage.

6-50. Wildlife habitat management necessary for the protection of threatened, endangered or sensitive species is allowed.

*Forest Pest  
Management*

6-51. Use Integrated Pest Management (IPM) practices as the strategy in managing pest populations to achieve resource management objectives for the management area.

6-52. Emphasis is placed on evaluating hazard potential and determining if efforts are needed to prevent or control loss of Trail values.

*Law Enforcement*

6-53. Hiker regulations are kept as unrestricted as possible. Use is restricted only to the extent proven necessary to protect the AT, its environment, the interests of adjacent landowners, and the AT users. Incompatible activities are controlled by educational efforts, and failing these, by enforcement of laws and AT regulations. An atmosphere of self-reliance and respect for AT values is fostered.

6-54. Law enforcement officers respond in a timely manner to and investigate AT incidents and randomly patrol trailheads and easily accessible facilities, particularly those with a history or pattern of incidents.

6-55. Incidents of criminal activity are reported to the Appalachian Trail Conference and the AT-maintaining club, in addition to the appropriate law enforcement authorities.

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**MANAGEMENT  
AREA 8  
Wilderness/  
Wilderness Study**

This 44,000-acre management area contains the four existing wildernesses (Ramseys Draft, Rich Hole, Rough Mountain, and St. Mary's) and the three roadless areas that are recommended for wilderness study (St. Mary's Addition, The Priest, and Three Ridges). Small portions of Barbour's Creek (20 acres) and Shawvers Run (95 acres) wildernesses that lie on the Forest are administered by the Jefferson National Forest.

Lands allocated to Management Area 8 are administered to maintain or achieve a naturally functioning ecosystem. Activities are integrated in such a way that current human use leaves only limited and site-specific evidence.

Roadless areas recommended for wilderness study are administered for retention of the wilderness attributes that led to their recommendation for inclusion in the National Forest Wilderness Preservation System. Pending Congressional action, these areas are managed as though they are designated wildernesses.

**The Desired Future**

Within the existing wildernesses, the enduring resource of wilderness is maintained and perpetuated as one of the multiple uses of National Forest System land. Wilderness character and public values are protected and perpetuated and include, but are not limited to, opportunities for solitude, education, physical and mental challenge, inspiration, scientific study, and primitive recreation that includes hunting and fishing.

The ecosystem is the result of natural succession and natural processes. In some areas, natural succession eventually results in an older forest of predominantly shade tolerant vegetation. Wildlife favoring mature vegetation or the late successional stages of vegetation predominate in wilderness. Unfragmented habitat is provided for area-sensitive species.

There is little evidence of visitor use in the wilderness and there is low interaction among users. Facilities of a primitive nature may be present to protect the resources and the safety of visitors. Minor evidence of primitive travelways exists. No motorized use is permitted.

Specific recreation opportunity spectrum (ROS) classification criteria on size and distance from roads prevent existing wildernesses from qualifying for the primitive ROS class designation. Given this, opportunities are provided for semi-primitive, non-motorized dispersed recreation experiences that emphasize solitude and challenge consistent with wilderness recreation. Human travel is principally on system trails when provided. Trailheads and signing are provided. Use is generally managed through informational services including trailhead information stations and one-to-one personal contacts and other wilder-

ness education efforts. Supervisor's Orders restricting overnight camping and campfires may be employed where needed to reverse or arrest unacceptable impacts.

Opportunities are provided for a variety of recreation pursuits with emphasis on activities that are in harmony with the natural environment. All lands are classified as unsuitable for timber production and contribute to the unfragmented habitat of the Forest.

**Standards**

Adherence to the following standards is required when implementing the Revised Plan in Wilderness and Wilderness Study Areas. These standards are in addition to the applicable Common Standards listed at the end of this chapter.

*Wilderness  
Management*

8-1. Wildernesses and roadless areas recommended for wilderness study are managed in accordance with the provisions of the Wilderness Act of 1964 (Public Law 88-577); Virginia Wilderness Act of 1984 (Public Law 98-586); Virginia Wilderness Act of 1988 (Public Law 100-326); Forest Service Manual 2320, Wilderness Management; Forest Service Manual 5100, Fire Management; Forest Service Handbook 2309.19, Wilderness Management; Executive Orders; and Secretary of Agriculture Regulations.

8-2. Campsites and other areas of concentrated use are managed for a low level of change in naturalness recognizing that different areas or zones in wilderness show varying degrees of human influence.

8-3. Appropriate campsites are naturalized or rehabilitated. Temporary or permanent site closures are considered when other management techniques are not successful.

8-4. Conflicts which develop between wilderness activities are resolved in favor of those activities (1) that least alter the wilderness environment, and (2) that are most dependent upon the wilderness environment. Some activities may be restricted or controlled to preserve the opportunities for solitude and primitive recreation experiences.

8-5. Primitive and semi-primitive non-motorized recreation opportunities requiring predominately unmodified natural settings with a high degree of challenge and risk are provided while traveling cross-country and on trails. Activities may include hiking, camping, hunting, fishing, or nature study.

8-6. Visitors are allowed to experience a wilderness environment by not reducing or eliminating personal risk associated with adverse weather conditions, isolation, natural physical hazards, and primitive travel and communications.

Visitor use is dispersed through information, education, and trail design.

8-8. Wilderness awareness and no-trace use ethics are promoted. The concept that wilderness is primitive and rugged and that certain outdoor skills are necessary for using these areas is promoted.

8-9. Minimum restrictions or controls necessary to protect the wilderness or roadless areas recommended for wilderness study are used.

8-10. The use of bicycles and other forms of mechanized transport, such as wagons or carts, is prohibited with the exception of wheelchairs for persons with disabilities on trails where such use is practical.

8-11. Management activities are accomplished with non-motorized equipment and non-mechanical transport of supplies and personnel. Exceptions require approval of the Forest Supervisor and/or Regional Forester.

*Trails Management*

8-12. Trails are designed, constructed, reconstructed and maintained to the minimum standard necessary to minimize or prevent resource damage, and to protect visual quality and the safety of visitors. Trails are emphasized that appear to be part of the wilderness environment and not an intrusion upon it.

8-13. Guidance for wilderness trails management is provided in FSH 2309.18, trails management and 2309.19 wilderness management.

8-14. Trail treads are generally constructed and maintained for hiking to not exceed 18 inches in width.

8-15. Native and local site materials are used in trail construction and maintenance.

8-16. Most trails receive level I or II maintenance (primitive or near primitive).

8-17. Any trails that have been constructed or maintained in excess of wilderness standards are allowed to return to the appropriate standard through natural processes.

Trails are favored that offer a "more difficult" to "most difficult" experience.

8-19. Outslope and/or waterbars or other drainage devices are provided when needed to minimize erosion.

8-20. Bridges and culverts are not installed for visitor convenience but may be established for safety or resource protection needs.

## *Signing*

8-21. No additional trails are constructed in wilderness unless essential for safety of visitors, distribution of users, or to minimize resource damage.

8-22. Trail signs are only used for identifying a trail, dispersing use, or for administrative purposes. Signs are not provided for visitor convenience or for environmental interpretation within wilderness or roadless areas recommended for wilderness study.

8-23. Signing in the wildernesses and areas recommended for wilderness study conform to standards in FSM 7160, FSH 7109.11, and FSH 2309.19.

8-24. Signing within wilderness or roadless areas recommended for wilderness study occurs at trails intersections if needed to disperse use. This signing indicates a destination point such as a landmark or a trailhead.

8-25. Whenever possible, excessively used areas are not indicated on signing.

8-26. Distances to destination points will not be included on signs within wilderness, but may be indicated on signs outside the wilderness boundary or roadless area recommended for wilderness study.

8-27. Interior signs and posts are made of unstained wood with routed letters.

8-28. Trail blazing within wilderness or wilderness study areas is allowed along portions of the Appalachian Trail.

8-29. Regulatory or informational signs are only used in situations where control of excessive resource damage is needed.

8-30. Bulletin boards and trail registration stations may be installed and maintained at primary access points outside the wilderness boundary or roadless areas recommended for wilderness study.

8-31. Wilderness boundary signs are placed as follows: Intervisible around entire boundary, and where the wilderness boundary follows legal landline utilize the current landline marking system with boundary marker installed under the landline marker.

## *Aesthetics*

8-32. The visual quality objective of preservation is met.

8-33. Non-historical remnants such as old railroad ties and culverts within wildernesses causing unacceptable impact are removed.

Featured roads outside of these four areas are also included within this management area for larger licensed OHVs (no unlicensed vehicles allowed). These roads are listed in Table 3-5. Additional roads suitable for OHV use are listed in Appendix J. Generally, these roads are open during hunting seasons.

The featured OHV roads are not included in the management area map since only the road profile is included within Management Area 11.

**Table 3-5.  
Featured OHV Routes.**

District	Road Number	Name	Miles
Dry River	1117	Old Man's Run	8.0
	225	Union Springs	7.0
	225B	Stone Camp	3.5
	227	Skidmore Fork	5.4
	232	Germany River	4.0
	232B	Camp Rader Run	3.0
	240	VEPCO	10.5
	304	Dry Run	3.5
	422	Dictum Ridge	5.2
	423	Gauley Ridge	6.0
	502	Second Mountain	4.2
	549	Old 33 Raccoon Run	2.0
	72	Long Run	15.9
	72C	Feedstone Mountain	4.0
	85-4	Bother Knob	4.6
85A	Flagpole	3.8	
James River	175	Peters Mountain	7.8
Lee	1702	Peters Mill Run	7.6
	1716	Taskers Gap	3.2
Pedlar	1154	Poplar's Cove	2.1
	1158	Cashaw	3.4
	1167	Coon Bridge	8.2
	162	Bald Mountain	10.2
	1881	Enchanted Creek	3.5
	317A	Dancing Ridge	1.0
	318	Peavine	3.2
	318B	Slaty Gap	1.9
	36E	Bear Tolley	3.7
	510	Tom Glass	5.3
520	Cow Camp	5.3	
<b>TOTAL</b>			<b>157.0</b>

## **The Desired Future**

Identified routes provide a variety of motorized recreation opportunities in this management area. ATV and motorcycle users enjoy designated routes within four areas on the Forest. Larger OHVs such as four-wheel drive vehicles use existing featured roads which provide challenge and are suitable for high clearance vehicles. In addition to routes within this management area, there are a number of roads throughout the Forest available for use by larger, licensed four-wheel drive vehicles. Physical impacts are confined to the immediate trail or road profile and do not spread beyond.

Maintenance is performed to protect the routes and minimize effects to soil and water resources. Routes may be closed during inclement weather. New routes are not developed until there is a demonstrated interest and a developed partnership with user groups.

The management emphasis of OHV recreation occurs only on designated routes. Other recreation opportunities such as hunting, fishing, and berry picking occur within the management area adjacent to the designated route corridors. Small created openings in the forest canopy may be apparent and visitors may see evidence of resource management activities. However, treatments blend well with the natural landscape and vegetation diversity is enhanced over time. Roads used or constructed to facilitate vegetation treatment are managed to provide non-conflicting access for both timber harvest and motorized recreation uses.

Recreationists enjoy traveling routes through a variety of landscapes. Along many of the routes the views are restricted to the immediate foreground by vegetation and natural landforms, but occasional openings reveal middle-ground or distant background vistas.

Within the four ATV/OHV areas routes vary from approximately 10 to 25 miles. Trail difficulty levels vary to accommodate a variety of desires and abilities. Users are adequately advised of trail difficulty levels and hazards. Constructed trails blend well with the natural environment. Though physical impacts from OHV use are confined to the immediate road or trail environment, sounds of motorized vehicles may be audible in other sections of the management area. The ATV/OHV areas are served by well designed, located, and maintained trailheads.

Off-route and other unauthorized OHV use is not allowed. When such use occurs, the route is closed permanently or until the situation is corrected.

Upland hardwoods*		120 to 180
Cove hardwoods		120 to 170
White pine		80+
Yellow pine	80+	
Virginia pine		80+

\*Stands where the scarlet oak component exceeds 50 percent of the basal area, the rotation can be reduced to 70 years.

15-18. No artificial conversion of hardwood or hardwood-pine forest types to pine or pine-hardwood forest types is allowed.

15-19. The average size of openings is approximately 20 acres with a maximum of 25 acres.

15-20. The pine component of pine-hardwood types can be maintained in the regenerated stand by natural regeneration.

15-21. Grapevine eradication is not allowed.

15-22. Follow Region 8 Supplement 36 (Forest Service Manual 2631 - 4-80) direction for retention of snag and den tree clumps.

15-23. Soft mast species, such as dogwood and serviceberry, over two inches DBH are retained in site preparation at a rate of approximately 70 stems per acre (25 x 25 foot spacing), where available. Smaller stems will not be cut unless their abundance inhibits regeneration of the stand.

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**MANAGEMENT  
AREA 16  
Early  
Successional  
Forested Habitats  
for Wildlife**

This 39,000-acre management area contains portions of the Forest that are managed to maintain or enhance habitat for wildlife species that prefer early forest successional habitats with dispersed permanent herbaceous openings. This area is characterized by a mosaic of habitat types ranging from mature stands to early successional habitat. Species benefitting from this management include, but are not limited to, the white-tailed deer, ruffed grouse, common flicker, prairie warbler, yellow-breasted chat, and mourning warbler.

This management area contains both land suitable and land unsuitable for timber production. A variety of management activities occur to achieve the desired future conditions.

**The Desired Future**

Lands in this management area provide high quality, early successional wildlife habitat intermingled with areas of mast-bearing trees and permanent herbaceous openings. Wildlife species include, but are not limited to, the ruffed grouse, common flicker, prairie warbler, and white-tailed deer.

Dense, 5 to 15-year-old forests exist in places with the number of trees 1 to 4 inches DBH exceeding 10,000 stems per acre. These dense patches are small (5 to 20 acres).

Numerous fruit, nut, or acorn-bearing shrubs and trees exist such as dogwood, serviceberry, grape, blackberry, hickory, oak, and apple.

Trees with cavities are plentiful. Water is nearby. Thermal cover protects wildlife during the cold months.

Evidence of man's activities is seen by people walking the closed roads and trails, as management provides wildlife habitat. This evidence doesn't dominate the landscape.

A variety of habitats is provided that covers the range needed by grouse during their life cycle. Spring habitat essential for breeding or drumming cover and nesting cover exists. Summer habitat provides brood range and fall/winter habitat affords protection from inclement weather and predators and provides food sources. These habitat types occur in approximately equal amounts and are well dispersed throughout the management area.

Other habitat management activities to facilitate desired future conditions include, but are not limited to, development of water sources in areas where

free-flowing water is lacking, prescribed burning, timber harvesting and creation/maintenance of temporary and permanent openings. Maintenance and restoration of mineral developments provide wildlife habitat.

Both motorized and non-motorized recreation opportunities are provided. A variety of recreational activities are available including quality hunting, fishing, wildlife viewing, berry picking, hiking, and driving for pleasure. Trail systems may be maintained, upgraded, expanded, or reduced depending on demand.

Closed roads are seeded with non-invasive grass/forb/legume seed mixtures with known value to wildlife.

**Standards** Adherence to the following standards is required when implementing the Revised Plan on Management Area 16 lands. These standards are in addition to the applicable Common Standards listed at the end of this chapter.

*Aesthetics* 16-1. The area is managed to meet a visual quality objective of partial retention.

*Fire* 16-2. Prescribed fire is allowed only within parameters identified for prescribed fire in common standards.

16-3. Prescribed burning should strive to create and maintain moderate herbaceous ground cover and abundant insect populations in savannah type habitats or enhance fruit and/or nut production for species such as blackberry or bear oak. Priority should be given, but is not limited to, burning areas with slight slopes (< 15 percent), moderate to high site indexes (60+), and low basal area (< or equal to 70).

*Minerals* 16-4. The area is available for oil and gas leasing and development with standard stipulations. Other leasable minerals and common variety minerals are also available.

*Recreation* 16-5. Lands managed for early successional habitat area are managed under two recreation opportunity classes. Lands inventoried as roaded natural remain roaded natural. Lands inventoried as semi-primitive motorized or semi-primitive non-motorized adopt a recreation opportunity class of semi-primitive motorized (subclass 1). See the *Transportation Network and Recreational Opportunities* map accompanying the Revised Plan.

16-6. Deleted by Amendment #2.

*Roads*

16-7. Roads are designed to the lowest standard necessary to meet management area objectives (either TSL C or D).

*Timber*

16-8. Even-aged regeneration harvest methods are used to meet the DFC for this management area.

16-9. Salvage of dead or dying trees can occur from existing, or new roads, to achieve wildlife habitat objectives, safety, provide scenic rehabilitation or to capture value of deteriorating timber using ground-based or helicopter logging methods. Perpetuating the establishment of hard mast species (oak and hickories) is the primary wildlife habitat objective for salvage in these management areas.

16-10. Rotation ages for even-aged management vary between the following range:

Upland hardwoods	80 to 100 (scarlet oak 60 to 70)
Cove hardwoods	70 to 100
White pine	60 to 80
Yellow pine	60 to 80
Virginia pine	50 to 70

16-11. Regeneration cuts average approximately 8-10 acres in size, and do not exceed 20 acres.

16-12. Savannahs, grape arbors, old home sites (open areas, orchards), spring seeps, and land form features that create unusual habitats are managed as key wildlife areas.

16-13. Follow Region 8 Supplement 36 (Forest Service Manual 2631 - 4-80) direction for retention of snag and den tree clumps.

16-14. Soft mast species, such as dogwood and serviceberry, over two inches DBH are retained in site preparation at a rate of approximately 70 stems per acre (25 x 25 foot spacing), where available. Smaller stems will not be cut unless their abundance inhibits regeneration of the stand.

*Wildlife*

16-15. Up to four water sources per square mile may be developed if free-flowing water is not present.

16-16. The Forest strives to maintain at least 5 percent of the area in grassy or herbaceous openings.

18-27. Lands within this management area are managed under three recreation opportunity classes. Lands inventoried as roaded natural remain roaded natural. Lands inventoried as semi-primitive motorized adopt a recreation opportunity class of semi-primitive motorized (subclass 1). Lands inventoried as semi-primitive non-motorized remain semi-primitive non-motorized. See the *Transportation Network and Recreational Opportunities* map accompanying the Revised Plan.

18-28. Trails and campsites causing unacceptable resource damage are closed and rehabilitated.

18-29. Soils are stabilized on eroded recreational sites through revegetation, traffic control, or closing of site.

18-30(a). Trails and campsites are located constructed, and maintained so as to cause minimum impacts to stream bank and other riparian values.

18-30(b). Riparian areas that are located in the foreground zone of the Appalachian National Scenic Trail (**Management Area 6**) are managed to retain their natural condition with minimal human intervention. Management activities are limited and designed to meet site-specific deficiencies in the desired future condition of riparian dependant resources.

- Soils* → 18-31. Where soils in riparian areas are disturbed by management activities, revegetation measures begin implementation within 14 days of the start of disturbance. When outside the seeding season, initial treatments may be of a temporary nature, e.g. armoring the exposed area against the impacts of rain-drops and surface runoff.
- Stream Protection* 18-32. Staged revegetation is used in riparian areas on sites where excessive sedimentation is likely to occur. Permanent vegetation is established and maintained on cut and fill slopes unless rock or other conditions will not permit vegetation to grow.
- Vegetation* 18-33. Rehabilitation of past and future impacts (both natural and man caused),
- Management* with vegetation management is allowed to enhance the recovery of the diversity and complexity of vegetation. Riparian dependent resources and values are given the highest priority.
- 18-34. Salvage of dead or dying timber can occur in riparian areas as long as riparian values are protected and the desired future condition is maintained or can be met.

*Wildlife* 18-35. Management activities are conducted to enhance riparian-dependent species.

**The following management area prescriptions sometimes contain different and additional standards depending on which management area prescription is assigned to the riparian area.**

**MANAGEMENT → AREA 18A** Those riparian areas that are adjacent to **Management Areas 4, 5, 6, 9, 10, 12, 20, 21, and 22** and unsuitable portions of **Management Areas 7, 11, 13, 14, 15, 16, and 17** are managed to enhance unique resource values. Management activities are designed to meet site specific needs in the desired future conditions.

**MA 18A Standards** In addition to standards that apply to all MA 18 lands and the applicable Common Standards at the end of this chapter, the following standard applies to land allocated to Management Area 18A.

*Timber and Other Vegetation* 18-36. These riparian areas are classified as unsuitable for timber production.

**MANAGEMENT AREA 18B** Those riparian areas in the Forest that are adjacent to the suitable portions of **Management Area 7, 11, 13, 14, 15, 16, and 17** are managed toward the desired future conditions while allowing limited harvest of timber products.

**MA 18B Standards** In addition to standards that apply to all MA 18 lands and the applicable Common Standards at the end of this chapter, the following standards apply to land allocated to Management Area 18B.

*Fisheries* 18-37. No timber production is programmed in riparian areas along wild trout streams (Class I, II, III, and IV waters in Virginia, and West Virginia streams capable of producing 15 lb/ac of wild trout.)

*Timber and Other Vegetation* 18-38. The first 66 feet of the riparian area is unsuitable for timber production. The remaining riparian area is classified as suitable for timber production that meets or is capable of meeting the desired future condition of the riparian areas and capable of blending with the desired future condition of adjacent management areas. Vegetation in riparian areas is managed as follows:

- a. The first 66 feet of the riparian area from the edge of stream banks is classified as unsuitable for timber production. The highest priority is to manage vegetation to meet the desired future condition of the aquatic

resources (fisheries and aquatic dependent animals and plants). Identification of vegetation to treat (overstory and understory) is determined by site specific analysis.

b. The remaining riparian zone is classified as suitable for timber production and for appropriate treatments that blend with the DFC of adjoining areas. Vegetation is managed in a manner that benefits terrestrial dependent animals and concurrently provides high quality forest products except where aquatic zones such as seeps, depressions, and old channel beds exist. In the latter cases, managing for aquatic dependent resources is the highest priority.

c. In riparian areas less than 66 feet wide, the entire area is classified unsuitable for timber production. Management outside that area follows the applicable streamside management zone standards found in *Common Standards* at the end of this chapter.

18-39. In areas classified suitable for timber production, silviculture harvesting methods other than clearcutting are permitted. The degree of canopy opening allowed and the desired trees and other vegetation retained is determined after site specific analysis.

**MANAGEMENT  
AREA 18C**

This management area contains those riparian areas in the Forest that are adjacent to or within a distance of one mile upstream of the following municipal water supplies (Lynchburg Reservoir, Coles Run Reservoir, Mills Creek Reservoir, Clifton Forge Reservoir, Skidmore Reservoir, Staunton Reservoir, and Elkhorn Lake). It also contains the lakeside management zones of these municipal reservoirs. The lands within this management area are classified unsuitable for timber production.

**MA 18C Standards**

In addition to standards that apply to all MA 18 lands and the applicable Common Standards at the end of this chapter, the following standards apply to land allocated to Management Area 18C.

*Recreation*

18-40. Recreational opportunities are closely monitored for adverse effects on water quality.

18-41. When causing adverse effects on water quality, camping and/or vehicles are excluded from the Streamside Management Zone.

*Timber and Other  
Vegetation*

18-42. These riparian areas are classified as unsuitable for timber production.

*Lake Shore*

18-43. Adjacent to municipal reservoirs, a lakeside management zone shall exist that extends at least 100 feet from the shore for land slopes of 10 percent or less, 150 feet for slopes of 11 percent to 45 percent, and 200 feet for slopes greater than 45 percent.

**Communications→  
Sites**

The Forest contains 11 communication sites. There are four major sites: Big Mountain, Elliott Knob, Great North Mountain, and Rocky Mountain. There are seven secondary sites: Duncan Knob, Narrowback, North Mountain, Reddish Knob, White Grass Knob, Signal Knob, and Fore Mountain.

Communications sites are managed to minimize the adverse impacts of the sites on other resources. Further requests for communications sites are evaluated on a case-by-case basis.

**The Desired Future**

Each site is developed and utilized to its greatest potential, thus eliminating or at least reducing the need to develop additional sites on the Forest. Consolidation of site users is occurring, thus reducing number of antennas and structures. Management direction for each site is to eliminate/reduce user signal interference. Use fees are assessed based on fair market value determined either by appraisal or market survey.

**Standards**

Adherence to the following standards is required when implementing the Revised Plan on Communications Sites. These standards are in addition to the applicable Common Standards listed at the end of this chapter.

*Aesthetics*

20-33. The area is managed to meet a visual quality objective of modification.

20-34. Landscape management methods are used to mitigate adverse impacts.

20-35. The assigned ROS class is compatible with a VQO of modification as shown in FSM 2311.11, Exhibit 1, 6/1/90.

*Facilities*

20-36. Public use is allowed as long as it does not constitute a safety hazard or interfere with the permitted use.

20-37. Use of existing sites is maximized to minimize the need for additional sites.

20-38. Tower clutter is reduced by utilizing existing and proposed towers to accommodate as many users as possible within technical constraints. When new facilities are constructed on a site, the Forest allows for as much expansion as possible.

20-39. All authorizations comply with requirements of the Radio Quiet Zone.

20-40. Special use permits may be issued on a case-by-case basis when not in conflict with management area objectives and only after other options have been evaluated.

20-41. Management requirements for permittee access roads are specified in the designated use permit.

*Fire*

20-42. The suppression response is control.

*Integrated Pest Management*

20-43. Forest insect and disease outbreaks may be controlled to prevent tree mortality and reduce hazard.

*Minerals*

20-44. Communications sites are available for oil and gas leasing with "No Surface Occupancy" stipulations.

20-45. Communications sites are not available for other leasable minerals nor for common variety minerals.

*Recreation*

20-46. Communication sites are managed under a roaded modified recreation opportunity class.

*Wildlife*

20-47. Activities at high elevation sites are conducted in a manner that insures minimal disturbance to sensitive species.

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**MANAGEMENT**  
**AREA 21**  
**Special Management**  
**Areas**

This 60,000-acre management area contains three Special Management Areas: Big Schloss, Laurel Fork, and Little River. It also contains the Mount Pleasant National Scenic Area, so designated by the George Washington National Forest Mount Pleasant Scenic Act of August 26, 1994 (Public Law 103-314). These four areas contain a variety of unique natural resources where a mixture of compatible management emphases is deemed the wisest management. Because of their unique features, complexity, and degree of interest, these areas are designated as Special Management Areas (SMA's), or as a National Scenic Area (NSA). Each SMA or NSA is described separately. The standards that apply to the entire management area are discussed at the end of the description and desired future condition for each of the four areas. All lands in the management area are classified as unsuitable for commercial timber production.

**BIG SCHLOSS**

The 20,200-acre Big Schloss Special Management Area on the Lee Ranger District also contains the Big Schloss Roadless Area (described in greater detail in Appendix C of the FEIS). This area encompasses significant recreational, historic, biological and geological values that can be managed harmoniously to provide a mixture of amenity benefits for the public.

Big Schloss contains unique geologic features that qualify portions for designation as a Geologic Area. In particular, there are sandstone outcrops at Big Schloss, Little Schloss, Halfmoon and a series of white rock cliffs along the east facing slopes of Paddy Mountain.

Big Schloss was used for the release of peregrine falcons during the reintroduction of this species. Because of the likelihood of falcon nesting, the area around Big Schloss could qualify as a Biological Area.

Big Schloss also contains a number of excellent recreational opportunities. The Big Blue Trail, a 250-mile trail connecting the Appalachian Trail (AT) in Shenandoah Park to the AT again in Pennsylvania, traverses Big Schloss. There is an existing system of trails connecting to the Big Blue Trail which make many circuit routes possible. The old wagon road up Little Sluice Mountain to Mill Mountain is part of the Forest transportation system and is open to motorized traffic. It also serves as a trail location. Big Schloss is used for hiking, horseback riding, mountain bike riding, and hunting. It is heavily hunted for deer, bear, turkey, and small game. There is established use of four wheel drive vehicles on the Little Sluice road to Mill Mountain including the hunting season when this route is also used for camping by many of the hunters.

Big Schloss also contains a number of historic features. Sugar Knob cabin, an historic site, is located in the area near the top of Sugar Knob at the head of Little

Stony Creek. It was a cabin for the lookouts that manned Halfmoon and Paddy Mountain lookouts. The cabin is made of native stone and is presently under special use permit to the Potomac Appalachian Trail Club. The Club operates the cabin on a reservation system for trail users.

The Big Schloss Special Management Area forests have recently received heavy mortality from gypsy moth. There are areas about 2,000 acres in size where tree mortality is as high as 95 percent. As the vegetation continues to age, there is additional mortality from gypsy moth, other insects, diseases and other causes.

### **The Desired Future for Big Schloss**

The Big Schloss Special Management Area is managed to maintain a natural appearance. Natural processes determine the condition of the ecosystems found in the majority of the area.

The area supports a high level of dispersed recreation use centered on a well-developed trail system. A feeling of solitude and back-country experience is provided. Improvements such as trailhead facilities, vault toilets, hardened trails, dispersed campsites, and measures to provide for riding stock use may be provided to protect the resources commensurate with anticipated use levels.

Visitors find the Big Schloss Special Management Area contains a number of unique historic and geological features that make it an excellent destination for a visit to the Forest. Although most access is limited to non-motorized means (including mountain bicycles). Motorized access (primarily by four-wheel drive vehicles) occurs along the Little Sluice Road. There are opportunities for primitive recreation and some opportunity for solitude.

Some vegetation manipulation may be accomplished, i.e. prescribed burning to benefit a variety of wildlife species, to reduce fuel loading and/or to reduce fuel continuity, and for fire-dependent plant species. Some small wildlife improvements, such as waterholes and clearings, may be constructed. Projects benefitting wildlife can best be described as gentle-on-the-land and would not appreciably reduce the roadless nature or primitive appearance of the Big Schloss Special Management Area.

Although the area is classified as unsuitable for timber production, some harvesting of fuelwood is permitted along perimeter roads. Salvage of timber killed by gypsy moth or other catastrophes may occur. Harvesting of timber using ground-based logging systems is limited to skidding distance from existing roads. Helicopter logging may be considered within one-half mile of the perimeter using landings along existing boundary roads or in management areas adjacent to the Big Schloss Special Management Area. All salvage is conducted in such a manner that the roadless character and primitive appearance of the Big Schloss Special Management Area are not significantly modified.

## LAUREL FORK

The 10,000-acre Laurel Fork Special Management Area on the Warm Springs Ranger District contains all of the Laurel Fork Roadless Area. (The roadless area is described in greater detail in Appendix C of the FEIS.) A narrow corridor west of Forest Development Road (FDR) 106 on the western edge of the area, and the Locust Springs Picnic Area are in management areas 7 and 12 and not part of this management area. This area encompasses significant biological and recreational values that can be managed harmoniously to provide special benefits to the public.

Laurel Fork is unique in the state of Virginia resulting, in part, from its location on a high, stream-dissected plateau of Alleghany Mountain. The elevations, ranging from 2,700 feet to over 4,000 feet, have given rise to a forest of northern hardwoods and red spruce, quite unlike the Appalachian oak forest that dominates the rest of the Forest.

Laurel Fork contains biological features not commonly found in the state of Virginia. On the western side of Laurel Fork, 6,172 acres are recommended for designation as an SIA-Biological by the Virginia Division of Natural Heritage. Slabcamp and Bear Wallow drainages located within the area have also been identified as candidates for possible RNA designation.

The Laurel Fork Special Management Area is also valuable because of its subsurface natural resources. The western part of Laurel Fork contains part of the Thornwood-Horton Gas Field. Gas reserves were discovered at a depth of roughly 5,200 feet. On neighboring Monongahela National Forest in West Virginia, drilling began in 1961 and ceased in 1964; five gas wells were drilled in this geologic structure. In 1995, the Monongahela National Forest prepared the "Thornwood Gas Pipeline Environmental Assessment" on a natural gas pipeline proposal to access these wells. On March 29, 1996, the acting Forest Supervisor of the Monongahela National Forest decided to authorize Thornwood Gas, Inc. to construct, operate, and maintain a buried natural gas pipeline system and install well site production equipment at these existing gas wells. Most of the Thornwood-Horton field, as presently defined, lies in West Virginia, but part of the field is within the Laurel Fork area. To avoid future conflicts over management of surface (biologic and recreation) and subsurface (oil and natural gas) resources, Laurel Fork is unavailable for future oil and gas leasing.

At one time, a total of six leases were authorized on the SMA. In 1990, about 94 percent of the SMA was leased. Since 1991, five existing leases have been relinquished by their lessees (Thornwood Gas Company and Columbia Natural Resources, Inc.). In fact, four existing leases were relinquished in 1995. The amount of the Laurel Fork SMA under lease has now been reduced to the one BLM lease. Likewise, a small strip of Laurel Fork within the Thornwood-Horton gas field has never been leased, despite the fact that it was available. Currently, 81 percent (about 8,264 acres) of the SMA is available for leasing.

Federal oil and gas lease BLM-A-0022918 (containing 2,168 acres in the western portion of Laurel Fork) is within the known geologic structure of the field. This BLM lease is being held under a communitization agreement (CA) with the Bureau of Land Management (BLM) of the U.S. Department of Interior for as long as a well is considered capable of producing in paying quantities. This communitization agreement supersedes the original lease and determines the rules for the production of natural gas. The CA does not have an expiration date. Since this lease is already issued, its administration will be governed by post-lease procedures, specifically the Application for Permit to Drill (APD). If the BLM lease were ever relinquished by the lessee, the subsurface area would then be unavailable for future oil and gas leasing.

### The Desired Future for Laurel Fork

The Laurel Fork Special Management Area is managed in a manner that maintains and enhances its unique biological values not commonly found elsewhere in Virginia. These biological features make visiting the area a unique recreational experience.

#### Botanical and Zoological Features

This area contains one of the finest examples of northern boreal natural community complexes in Virginia and is the only representative of the Alleghany Plateau Ecoregion within the Commonwealth. The area contains at least 25 species of plants and animals have their only known occurrence in Virginia as the flora and fauna represented are distinctly northern in affinity with many species at or near their southern distributional limits.

Fertile soil, adequate year-round water, and moderate topography present exceptional habitat for threatened, endangered, and sensitive species. A mosaic of community types provides habitat for several state (Virginia) and federally-listed species including the Virginia northern flying squirrel, snowshoe hare, and water shrew. The special botanical and zoological features west of Laurel Fork stream are managed to maintain and, where appropriate, enhance habitat for these unique species.

Fifty snowshoe hare were introduced into this area in 1961. The existing snowshoe population decreases considerably because of lack of sprout growth and cover. Continued shortage of browse brings about further decline in the hare populations until they stabilize at some lower level.

The most noteworthy furbearing animal seen is the beaver. They are responsible for the picturesque meadow-pond environment. Active colonies vary in location over the years, but the dams generally remain in good condition.

A variety of bird life exists. Most unusual seen or heard are cedar waxwings, red crossbills, and blackburnian warblers; which are attracted by the northern hardwood forest and are not normally resident in other parts of the Forest. Species composition within the area varies with the time of year and status of migrations.

Laurel Fork stream and the beaver ponds contain trout. Stream headwaters are in northern hardwood/red spruce forests and flow through extensive beaver ponds and meadows.

Old growth characteristics develop. Old growth northern hardwoods, principally birch, cherry, maple, beech, and a scattering of red spruce occupy on moist sites at the higher elevations. Remnants of the original northern hardwood forest occur as isolated trees. The existing even-aged vegetative cover (almost entirely second growth of 50-70 years old) becomes uneven-aged over time.

#### Recreation

Most of the Laurel Fork Special Management Area continues to offer opportunities for primitive, non-motorized recreation use in a fairly remote setting.

The area receives continual, light use and sporadic heavy use. Heavy use occurs on holiday weekends and during hunting seasons. The best chance for solitude is during mid-week. The area is generally quiet.

The area is easily accessible from the west and north. Access from the east and south is over private lands. The old tram roads form the basis for an extensive trail network. A good system of interlinking foot trails exists. The extensive trail network provides opportunities for nature study, hunting, fishing, hiking and camping in a remote and primitive setting.

The resources for environmental education and scientific study are plentiful. The area can provide an opportunity for challenge.

#### Scenery

A dominant attribute continues to be the scenery associated with beaver dams in the drainages along the eastern slope of Alleghany Mountain. The mixture of spruce, hardwoods, and meadows, framing the impoundments created by beavers, provide a scenic background for tranquil visits.

The beaver ponds, meadows, and spruce provide pleasing areas for enjoyment of solitude, natural beauty, and wildlife viewing. They are present in Owl Knob, Buck Run, Locust Springs Run, Lost Run, Slabcamp and Bearwallow.

One of the most pleasing visual features is the clean, sinuous stream (Laurel Fork), with its changing character. Small cascades over shelf rock and deep pools framed by rhododendron complement broad shallows and small rills. Many places along Laurel Fork and other streams afford pleasing but short-distance views of vegetation and water combinations.

A seasonal variety of color contrasts is afforded by flowering understory plants, and the birch, maple, and cherry forests differing significantly from the oak-hickory forests found elsewhere in Virginia. Rhododendron are found in full bloom in mid-July along Laurel Fork and the lower reaches of the tributary streams. Many people travel to the area in the fall to see the brilliant orange and red hues of the sugar maples, which overshadow the more subdued colors in the oak-hickory forests.

Visual impact of the existing logging railroad tram becomes subdued, but is never completely eliminated since most were constructed on side slopes, with gentle grades, and straight alignment which required cuts and fills. The cuts and fills are well stabilized, but when combined with the long straight tangents, they reflect significant evidence of the work of man, even to a person unaware of their origin. The existing visual appearance of the trams naturally decreases over time. Otherwise, man's intrusions are not dominant to an experienced viewer. The evidence of man is not readily apparent.

#### Minerals

Mineral rights are owned by the United States of America on all National Forest System lands. There are no mineral leases.

#### Other

Vegetation management is performed in compliance with the guidelines of the recovery plan for the Virginia northern flying squirrel and for the snowshoe hare. Some manipulation of vegetation through prescribed burning and some minor wildlife improvements (such as waterholes and clearings) are constructed to benefit wildlife species. Any projects benefitting wildlife could be described as gentle-on-the-land and not appreciably reducing the roadless nature or primitive appearance of the Laurel Fork Special Management Area. Non-native plantations of red pine are present. At some point, these may be removed and returned to native vegetation.

As the vegetation continues to age in the Laurel Fork Special Management Area, there is natural mortality. Most of the Laurel Fork Special Management Area develops characteristics of older vegetation.

Although the Laurel Fork Special Management Area is classified as unsuitable for timber production, some harvesting of fuelwood may be permitted along FDR 106 and FDR 457. There may be some vegetation management opportunities associated with the elimination of the non-native red pine plantations and the perpetuation and expansion of the native red spruce. Salvage of timber killed by gypsy moth or other natural or human-caused catastrophes is permitted on portions of Middle Mountain accessible from FDR 457 and along the roadside corridor of FDR 106. This salvage is conducted in such a manner that the roadless character and primitive appearance of the Laurel Fork Special Management Area are not significantly modified.

FDR 457 along Middle Mountain on the eastern-most side of the Laurel Fork Special Management Area is proposed for approximately 1.1 miles of relocation to improve its current alignment and secure legal public access. Public access is to end at Christian Sod. Also, an access parking lot and road to provide fishing access to Laurel Fork are planned off State Route 642. Construction requires a right-of-way. Motor vehicle use by the public is limited to FDR 457 on Middle Mountain. Additional primitive campsites are needed along FDR 457 as vehicle use and camp sites are eliminated in the fields along FDR 457.

## **LITTLE RIVER**

The 22,200-acre Little River Special Management Area on the Dry River Ranger District contains most of the Little River Roadless Area described in greater detail in Appendix C of the FEIS. Within this large special management area is the Reddish Knob Electronic Site, part of Management Area 20, and the Reddish Knob Observation Site that is in Management Area 12.

The Little River Special Management Area encompasses the Little River watershed above Hearthstone Lake as well as drainages along the upper reaches of the North River, the Skidmore Forks, Stony Run, Coal Run, Big Run, and Wolf Run. Parts of the Little River Special Management Area have a history of damaged stream channels and debris slides which can be attributed to steep slopes and intense storms. It was the focus of a very intense rain storm, estimated 12-inch rainfall in a 24-hour period, occurring in 1949. This storm caused mass soil movement. The area has not fully stabilized and remains a hydrologic problem area.

Due to its relatively large size, steep topography and dense vegetation, the Little River Special Management Area offers excellent opportunities for primitive, non-motorized recreation in a setting of solitude and serenity. There are a number of trails that provide excellent access to the interior of the area. A portion of the Wild Oak Trail, a National Recreation Trail, passes through the area. Trails 423 and 431 are also used for motorized administrative access. FDR 427 is seasonally open to motorized use.

The Little River Special Management Area also offers scenic values. Spectacular vistas of the Shenandoah Valley are provided from many of the high ridges and knobs. Reddish Knob is particularly well known as a popular observation site and offers good opportunities for hang gliding.

### **The Desired Future for Little River**

The Little River Special Management Area offers a variety of recreation experiences that are in harmony with protecting unique biological and primitive recreation opportunities.

The Little River Special Management Area offers habitat for remote species that require large blocks of unfragmented habitat. There may be some manipulation of vegetation through prescribed burning and some small wildlife improvements (such as waterholes and clearings) may be constructed to benefit wildlife species. Projects benefitting wildlife can be described as gentle-on-the-land and do not appreciably reduce the unfragmented habitat, roadless nature, or primitive appearance of the Little River Special Management Area.

Areas within the Little River Special Management Area have received heavy mortality from gypsy moth. As the vegetation continues to age, there is additional mortality from other insects, diseases and other causes. Most of the Little

River Special Management Area develops characteristics of an older ecosystem. Human activities are limited in scope on much of the area.

Although the Little River Special Management Area is classified as unsuitable for timber production, some harvesting of fuelwood is permitted along perimeter roads. Salvage of timber killed by gypsy moth or other catastrophes may occur. Harvesting of timber using ground-based logging systems is limited to skidding distance from existing roads. Helicopter logging may be considered within one-half mile of the perimeter using landing along existing boundary roads or in management areas adjacent to the Little River Special Management Area. All salvage is conducted in such a manner that the roadless character and primitive appearance of Little River Special Management area are not significantly modified.

Visitors find the Little River Special Management Area offers excellent opportunities for primitive, unconfined recreation in a natural, remote setting. Most access is limited to hiking, horseback, and mountain bikes. Seasonal motorized access (primarily by four-wheel drive vehicles) occurs along FDR 427. New connecting non-motorized loop trails may be needed in the future.

Portions of this management area over 3000 feet in elevation contain habitat occupied by the rare and endemic Cow Knob salamander. Management of these high elevation areas is complementary to the adjoining Management Area 4E (Shenandoah Mountain Special Interest Area-Biological) and protects the Cow Knob Salamander.

**MOUNT PLEASANT  
NATIONAL SCENIC  
AREA**

The 7,695-acre Mount Pleasant National Scenic Area contains most of the Mount Pleasant Roadless Area described in greater detail in Appendix C of the FEIS. The Mount Pleasant National Scenic Area is well known for its prominent mountains, including Mount Pleasant, Pompey, and Cold Mountain, as well as the very popular Henry Lanum Memorial Trail, the Mount Pleasant Spur Trail, the Old Hotel Trail, and a portion of the Appalachian National Scenic Trail. Some of the best views on the Pedlar Ranger District are possible from Mount Pleasant and Cold Mountain. Other features include the small virgin groves of hardwood forest in Little Cove Creek, and wild trout streams.

The Mount Pleasant National Scenic Area offers excellent opportunities for solitude and serenity. This area is very popular for various forms of dispersed recreation including hiking, hunting and fishing. The core of the Mount Pleasant National Scenic Area appears relatively remote. There are no trails designated for licensed OHV or ATV use.

**The Desired Future  
for Mount Pleasant**

The purposes of the George Washington National Forest Mount Pleasant Scenic Area Act are to:

- (1) Ensure appropriate protection and preservation of the area's scenic quality, water quality, natural characteristics, and water resources;
- (2) Protect and manage vegetation to provide wildlife and fish habitat consistent with paragraph (1);
- (3) Provide areas that may develop characteristics of old-growth forests; and
- (4) Provide a variety of recreation opportunities that are not inconsistent with the preceding purposes.

The Mount Pleasant National Scenic Area offers a variety of recreational experiences that are in harmony with protecting unique biological and primitive recreation opportunities.

Management practices could be described as gentle-on-the-land and not appreciably reducing the unfragmented habitat, roadless nature, or primitive appearance of the Mount Pleasant National Scenic Area. As the vegetation within the Mount Pleasant National Scenic Area continues to age, there is natural mortality. Most of the Mount Pleasant National Scenic Area develops characteristics of older ecosystems.

Visitors find that the Mount Pleasant National Scenic Area offers excellent opportunities for primitive, unconfined recreation such as fishing, hunting, mountain biking, and horseback riding. Most access is limited to non-motorized means.

**Standards for SMAs  
and Mount Pleasant  
NSA**

Adherence to the following standards is required when implementing the Revised Plan in Special Management Areas and the National Scenic Area. These standards are in addition to the applicable Common Standards listed at the end of this chapter.

- Aesthetics* 21-1. The Laurel Fork, Big Schloss, and Little River Special Management Areas and the Mount Pleasant National Scenic Area are managed to meet a visual quality objective of retention.
- Fire* 21-2a. In Laurel Fork, Big Schloss, and Little River Special Management Areas, prescribed fire may be used to provide animal or plant habitat management and species maintenance or to reduce fuel loading or fuel continuity in areas heavily defoliated by gypsy moth.
- 21-2b. In the Mount Pleasant National Scenic Area, prescribed fire may be used to manage the vegetation of existing wildlife clearings or open areas in association with the Appalachian National Scenic Trail.
- Land Exchange and Acquisition* 21-3. Inholdings and adjacent lands are acquired as opportunities arise or funding becomes available.
- Minerals* 21-4. Reserved/outstanding minerals are acquired when available and subject to availability of acquisition funds.
- 21-5. The Laurel Fork SMA, including its associated riparian areas, is administratively unavailable for oil and gas leasing. The Big Schloss and Little River SMA's are available for oil and gas leasing with surface occupancy highly restricted by using controlled surface use stipulations.
- 21-6a. The Laurel Fork, Big Schloss, and Little River Special Management Areas are available for other leasable minerals and common variety minerals on a case-by-case basis.
- 21-6b. All federally-owned lands in the Mount Pleasant National Scenic Area are withdrawn from location, entry, and patent under the mining laws of the United States, and from leasing claims under the mineral and geothermal leasing laws of the United States, including amendments to such laws.
- Recreation* 21-7. The Laurel Fork, Big Schloss, and Little River Special Management Areas and the Mount Pleasant National Scenic Area are managed under four recreation opportunity classes. Lands inventoried as roaded natural remain roaded natural. Lands inventoried as semi-primitive motorized adopt a recreation opportunity class of semi-primitive motorized (subclass 1) or semi-primitive motorized (subclass 2). Lands inventoried as semi-primitive non-motorized remain semi-primitive non-motorized. See the Transportation Network and Recreational Opportunities map accompanying the Revised Plan.
- 21-8. "No-trace" camping techniques are promoted.
- 21-9. Campsites and other areas of concentrated use are managed for a low level of change in natural conditions.
- 21-10. Where appropriate, interpretive services (trails, signs, viewing areas) are provided to enhance visitors' understanding and appreciation of the area's special values.
- 21-11. Trails and other recreation facilities are located so as to not disturb the sensitive or unique areas within the management area.
- Roads* 21-12a. In the Mount Pleasant National Scenic Area, no new permanent roads shall be constructed, except that this prohibition shall not be construed to deny access to private lands or interests therein in the Scenic Area.
- 21-12b. Motorized travel in the Scenic Area shall be allowed on State Route 635 and Forest Development Road 51. Except as listed above, motorized travel shall not be permitted within or on the boundary of the Scenic Area except as necessary for administrative use in furtherance of the purposes of the George Washington National Forest Mount Pleasant Scenic Area Act of August 26, 1994 (PL 103-314).

21-12c. In Laurel Fork, Big Schloss, and Little River Special Management Areas, no new road construction is permitted except (1) to access approved mineral activities and (2) where the new road is the only prudent alternative to serve resource needs in other management areas and will minimally impact this management area and (3) relocation of existing roads and (4) provide access to trailheads and (5) provide access to private land if no other route is feasible. Reconstruction is limited to protection of resource values. Existing system roads or those routes to access wildlife openings may continue to be used.

*Soil and Water*

21-13. Water quality is maintained at existing or higher levels. Erosion from either natural causes or human use that is contributing to degradation of water quality is controlled.

21-14a. In the Mount Pleasant National Scenic Area, any abandoned or closed roads are revegetated for resource protection.

21-14b. Watershed improvement projects (in any area) are developed and implemented on:  
a. areas where erosion is due to man-caused activities;  
b. critical areas where erosion is due to natural causes.

*Timber and Other Vegetation*

21-15. In Big Schloss, Laurel Fork and Little River SMAs: Salvage of dead or dying trees can occur from existing roads using ground-based logging systems.

21-16. In Big Schloss and Little River SMAs: Salvage of high quality dead or dying timber (from broad scale mortality from gypsy moth or fire) is permitted with helicopter within one-half mile from perimeter of area only.

21-17a. In the Mount Pleasant National Scenic Area, harvesting of firewood for personal use is permitted along perimeter roads.

21-17b. In the Mount Pleasant National Scenic Area, vegetation manipulation may be practiced for the maintenance of existing wildlife clearings and visual quality.

21-17c. In the Mount Pleasant National Scenic Area, no timber harvest shall be allowed, except as may be necessary in the control of fire, insects, and diseases; or to provide for public safety and trail access.

21-17d. In the Mount Pleasant National Scenic Area, insect and disease outbreaks may be controlled to maintain scenic quality, prevent tree mortality, reduce hazards to visitors, or protect private lands.

*Wildlife*

21-18a. In the Mount Pleasant National Scenic Area, existing wildlife habitat clearings can be maintained.

21-18b. In Laurel Fork, Big Schloss, and Little River Special Management Areas, existing wildlife habitat improvements can be maintained. Additional improvements are permitted so long as they achieve overall wildlife objectives and do not require any additional road construction.

**COMMON STANDARDS →**

The Common standards that follow may apply to several, if not all, management areas. If a management area description (on preceding pages 3-4 through 3-118) gives no standards for a particular resource, the Common Standards for that resource apply. There are no Common Standards for Interpretation Management; see Appendix C, the Forest Interpretation Plan.

1. Projects are evaluated to determine if they are consistent with the management direction in the Revised Plan. This evaluation is documented in the project-level environmental document with a finding of consistency incorporated into the decision document, when one is required.

2. Any decisions on projects to implement the Revised Plan are based on site-specific analysis in compliance with the National Environmental Policy Act (NEPA). This environmental analysis is appropriately documented based on direction in the Council on Environmental Quality *Regulations For Implementing The Procedural Provisions Of The National Environmental Policy Act* (40 CFR Parts 1500-1508) and the *Environmental Policy and Procedures Handbook* (FSH 1909.15).

**AESTHETICS →**

3. Table 3-14 presents contrast reducing standards that are used in conjunction with vegetation management on the Forest. The standards listed in columns titled Retention, Partial Retention, and Modification are the minimum standards that must be applied to the listed Vegetation Management Activity. Additional mitigation may be needed on a site-specific basis to ensure the adopted VQO is met. When a short term VQO of rehabilitation is assigned, the standards in Table 3-14 are replaced by site-specific mitigation measures to facilitate restoration of the scenic resource to meet a long term VQO. The capital letters in Table 3-14 relate to descriptions of the standards; the descriptions follow Table 3-14.

**Table 3-14.**

**→Vegetation Management Contrast Reducing Standards**

Vegetation Management Activity	→Contrast Reducing Standards by Visual Quality Objective			Applicable Management Areas*
	Retention	Partial Retention	Modification	
Clearcutting, Removal	No	B, C, D, F, G, H, J, M, N, U, V	L,O,U,V	11, 14, 15, 16, 17
Seed-Tree	A, B, C, D, F, G, H, J, M, N, P, U, V	A, B, C, D, F, H, K, M, N, P, U, V	B,L,M,O,P,U,V	11, 14, 15, 16, 17
Modified Shelterwood	A, B, C, D, F, G, H, J, M, N, U, V	A, B, C, D, F, H, K, M, N, U, V	B,L,M,U,V	7, 11, 14, 15, 16, 17
Salvage	A, B, C, D, F, G, H, K, U, V	A, B, C, D, F, H, K, U, V	B,L,U,V	4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 21
Conventional Shelterwood	A, B, C, D, F, G, H, J, M, N, P, U, V	A, B, C, D, F, H, K, M, N, P, U, V	B,L,M,P,U,V	7, 10, 11, 14, 15, 16, 17

Group Selection and/or Single-Tree Selection	A, B, C, D, F, G, H, I	A, B, C, D, F, G, H, I	I	7, 11, 13, 15, 17, 18
Commercial/Non-Commercial Thinning	A, B, C, D, F, G, H	A, B, C, D, F, G, H	A,B	7, 10, 11, 13, 14, 15, 16, 17, 18
Roadside Maintenance →	A, B, E, G, S, T, W, X	A, B, E, S, T, W	A,E,S,T,W	All except 8
Permanent Road Construction/Reconstruction	C, G, H, S, T, W	A, B, C, H, S, T, W	A,B,S,T,W	All except 8
Temporary Road/Skid Trail Construction	C, G, H, S, T, W	A, B, C, G, H, S, T, W	A,B,S,T,W	7, 9, 10, 11, 13, 14, 15, 16, 17, 18
Utility Corridor Construction & Maintenance	A, B, C, D, E, G, H, Q, R	A, B, C, D, E, H, Q, R	B, H, Q, R	5, 6, 7, 11, 18
Prescribed Burn	G	G	G	4, 6, 9, 10, 14, 15, 16, 17, 18

\*The vegetation management activity listed may not be applicable to the entire management area but to certain portions of it only. Refer to the management area descriptions in Chapter 3.

Trees are selectively removed to improve amenities within high use areas, vista points, and along interpretive trails.

- B. Flowering and other visually attractive trees and understory shrubs are favored when leaving vegetation.
- C. During temporary or permanent road construction, slash and root wads are eliminated or removed from view in the immediate foreground retention and partial retention zones to the extent possible. Slash may be aligned parallel to roads at the base of fill slopes to collect silt, but only to the extent it provides this function.
- D. Slash is lopped to within an average of 2 feet of ground, when visible within 100-foot zone beyond travel route edge, prior to cutting unit being accepted.
- E. Stems are cut to within 6 inches of the ground when doing roadside maintenance or at utility crossings.
- F. Leave tree or unit marking is applied so as to not be visible within 100 feet of sensitivity level 1 and 2 travel routes.
- G. Consider scheduling work outside of major recreation seasons on roads leading to recreation facilities.
- H. Special road and landing design is used. When possible, log landings, roads and bladed skid trails are located out of view to avoid bare mineral soil observation from sensitivity level 1 and 2 travel routes.
- I. An actual opening size up to 1.5 acres is allowed.
- J. An actual opening size up to 10 acres is allowed in the foreground zone and 25 acres in middleground and background zone in sensitivity level 1 & 2 travel routes.
- K. An actual opening size up to 25 acres with inclusions is allowed.
- L. An actual opening size up to 40 acres with inclusions is allowed.
- M. Along sensitivity level 1 and 2 travel routes, openings should be spaced at a minimum of 1000 feet apart next to the travel route.
- N. Along remaining sensitivity level 1 and 2 travel routes in management area 7, openings of up to 200 feet are allowed.
- O. Along sensitivity level 2 travel routes, openings of up to 400 feet are allowed.

21. Management activities within any area draining into a cave are limited if they may affect the cave ecosystem through sedimentation, soil sterilization, the addition of nutrients or other chemicals (including pesticides, herbicides, and fertilizers), or change the cave's natural hydrology.

22. Diversion of surface drainage into caves is prohibited.

23. Measures for the protection of caves are incorporated into project plans for road construction, timber harvest, tree planting, blasting near caves, and activities which could change cave temperatures and drainage patterns.

24. Scientific or educational use of caves may be permitted by the Forest Supervisor.

25. Communication and cooperation between the Forest Service and caving organizations is fostered. Exchanged information is not made public if it could lead to the degradation of sensitive caves.

26. Laws protecting caves from illegal relic collectors and vandalism are vigorously enforced.

27. Forest caves are evaluated using the rating system in Appendix D of the Revised Plan. The system allows significance values to be assigned to various cave resources. The assigned values are used to determine cave classification and to determine cave significance under the implementation regulations of the Federal Cave Resources Protection Act of 1988.

28. As new caves are discovered, they are temporarily managed as Class 1 until an analysis of resource values is completed.

**→HERITAGE  
RESOURCES**

29. The Forest undertakes a systematic program of heritage resource inventory, evaluation, and preservation aimed at the enhancement and protection of significant heritage resource values in compliance with 110(a)(2) of the Historic Preservation Act of 1966 as amended (1980). Integration of heritage resource management concerns is emphasized, as is coordination with the public, scientific community, and appropriate Native American and other ethnic groups.

**Inventory→**

30. The inventory of heritage resources is scheduled on National Forest System lands, giving priority to areas with high potential for disturbance and areas with high potential for significant historic and prehistoric sites.

→ 31. As a minimum requirement, an inventory project is conducted within a project area prior to the signing of the decision document for any earth-

disturbing activity, land exchange, or other activity that could affect heritage resources.

32. For projects involving the conveyance, exchange, or interchange of lands under the "Small Tracts Act" (P.L. 97-465; 96 STAT 2535), the Programmatic Memorandum of Agreement between the USDA Forest Service, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers (1985) is consulted.

33. Projects requiring heritage resource inventory prior to implementation include, but are not limited to, the construction or expansion of roads, bridges, wildlife and fisheries ponds, reservoirs, sand and gravel pits, parking areas, and trails; the implementation of timber sales and decking areas; oil, gas, mineral, and sand and gravel explorations that require the development of drill pads, roads, trails, and test pits; the construction of new structures individually or within groups of existing structures, or the remodeling of existing structures that are at least 50 years old and may meet the eligibility criteria for the National Register of Historic Places; the development or modification of campgrounds and other recreation facilities. Heritage resource inventory also will be required in the case of designated wilderness where natural deterioration of sites, or damage from visitor use may occur.

34. Nonground-disturbing activities that do not impact heritage resources previously identified by professional archaeologists and that include, but are not limited to, pesticide application and routine maintenance of roadways and trails currently in use may be implemented without survey or evaluation.

35. Cost-effective survey strategies are designed, utilizing locational modeling and thematic studies to improve efficiency.

36. Heritage resource standards and inventory processes are designed to conform with the U.S. Secretary of Interior's Standards and Guidelines for Archeology and Historic Preservation.

Inventory of Project Area: The Project Area is reviewed for presence of heritage resources listed or eligible for inclusion in the National Register of Historic Places (NRHP). The Forest undertakes one or more of the following actions to determine this:

- Site survey
- Review of FS files
- Review of maps
- Review of State Historic Preservation Officer (SHPO) files

Examine photos  
Search archives  
Interview informants

*Evaluation*→

37. Identified heritage resources are evaluated in relation to criteria published in 36 CFR 60 for eligibility to the National Register of Historic Places.

38. Evaluations are scheduled and conducted if a project would have any effect on a heritage resource potentially eligible for the National Register of Historic Places. Evaluations are scheduled and conducted if the responsible official and SHPO disagree on whether a heritage resource is potentially eligible for the National Register of Historic Places.

39. Evaluations are scheduled in a timely manner (before the project can proceed) when a proposed project cannot be delayed or relocated, or if properties are deteriorating and have not been evaluated.

40. A determination of effect must be carried out in the event that a heritage resource determined eligible for or included on the National Register of Historic Places cannot be avoided, or the project delayed, and if the proposed project could affect the property either beneficially or adversely.

41. Determination of effect process is carried out in consultation with the appropriate SHPO in accordance with 36 CFR 800.

42. A consultation with the SHPO and Advisory Council on Historic Preservation is in order when it is determined that the project would affect an eligible site, and the project cannot be relocated or modified to avoid the site.

43. Unavoidable destruction of eligible sites must conform to processes designated by the National Historic Preservation Act as outlined in 36 CFR 800.

*Preservation*→

44. Projects are designed to avoid, minimize, or mitigate adverse effects on potentially significant heritage resources. In-place protection of identified sites is the minimum requirement until site significance is determined.

45. The nature and degree of damage to heritage resources due to visitor use and natural deterioration is assessed. Protective measures are identified and implemented.

46. Incidents of vandalism and/or theft are investigated with emphasis on prosecution of guilty parties.

47. Deterioration that affects the significant qualities of heritage resources that are eligible for the National Register of Historic Places is prevented or mitigated within availability of funds.

48. Protection and mitigation measures are developed on a case-by-case basis. Field measures include, but are not limited to, signing, road closure, fencing, vegetative screening, and withholding locational information.

49. Under the appropriate laws, antiquities permits are issued, or volunteer agreements entered into, with qualified academic institutions or other organizations for the study and research of heritage resource sites. Activities that are consistent with policy and management objectives are permitted.

50. A preservation/maintenance plan is developed for historic administrative and recreational facilities.

51. The implementation and effectiveness of protection and mitigation measures prescribed for heritage resources are monitored.

52. Photo-points of sensitive sites are established to document protective and mitigative measures.

*Curation*→

53. The Forest works to comply with the curation standards set forth in the Secretary of Interior's Guidelines for curation. In the interim, all artifacts recovered on the Forest are curated and stored under locked security at the Forest Heritage Resources Depository.

*Enhancement*→

54. Interpretive facilities and projects are developed in compliance with the 1988 amendments to the Archeological Resource Protection Act. Opportunities for both on-site and off-site interpretation of heritage resources are identified.

55. The national "Windows of the Past" program is implemented to improve public understanding of our heritage, to raise public awareness of the fragile and irreplaceable nature of heritage resources, and to provide enhanced public recreation opportunities.

56. Opportunities are provided for the public to observe or to participate in all phases of Forest Service heritage management. The "Passport in Time" program is utilized to involve amateur and professional volunteers in selected aspects of preservation and management efforts. Public outreach and involvement efforts are emphasized with local schools and organizations. Partnerships are developed with external organizations, groups, and individuals to provide a public service through heritage resources.

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*Mechanical  
Equipment*

249. Timber stand improvement (TSI) and reforestation practices with mobile mechanical equipment is not allowed.

*Salvage*

250. Timber can be salvaged as a result of natural catastrophic events, such as fire, insect and disease, wind, ice, or snowstorm, only when it can be done without damaging any identified values of the area.

251. The size of openings allowed for harvesting timber on lands suitable for timber production as a result of fire, wind, ice, snow, and insect attacks will be determined on a case-by-case basis rather than established opening size limits.

252. Salvage of dead or down trees by personal use permit for fuelwood purposes is allowed Forestwide from existing roads, except for the following management areas:

4 (Historical, geological and Research Natural Areas only)

8 (Wilderness and Wilderness Study Areas)

12 (Developed Recreation Areas)

20 (Administrative sites, Utility Corridors and Communication Sites)

22 (Habitat for Small Game and Watchable Wildlife)

253. Salvage of dead, dying or degrading trees can occur to utilize high value products for the economic and social well being of local communities, where such vegetative manipulation helps meet the desired future condition of the management area.

254. Post-harvest treatments permissible on lands suitable for timber production with site index 70+ are:

a. Installation of tree shelters on existing advanced reproduction of hardwood species.

b. Planting of hardwood species at approximately 45 feet spacing (22 trees/ac) where natural advanced reproduction is inadequate.

c. Release of trees in tree shelters from competing vegetation.

255. Post-harvest treatment includes planting naturally or historically occurring pine species on site index 50 or 60 land where desirable susceptible hardwood or pine advance reproduction is not adequate. Use a 15 foot spacing to achieve a net survival of about 160 trees per acre.

256. Felling without removal of dead, dying or degrading trees can occur in any management area to provide for public safety.

257. Following salvage situations, mixed stands of hardwood and pine will be managed to facilitate natural species diversity including both naturally or historically occurring pine and hardwood species.

*Regeneration  
Harvest Methods*

258. The decision document for any project utilizing clearcutting contains a determination that clearcutting is the optimum method to meet the goals, objectives, desired future condition, and standards for that management area as described in the Revised Plan.

259. Harvesting of trees to meet the desired future condition of a particular management area may occur prior to rotation age. For regeneration cuts, harvesting cuts are not scheduled prior to culmination of mean annual increment.

260. The decision document for any project utilizing other even-aged regeneration harvest methods (including seed tree, shelterwood, or modifications of these methods) contains a determination that such even-aged regeneration harvest methods are appropriate to meet the goals, objectives, desired future condition, and standards for that management area as described in the Revised Plan.

261. Specific locations of lands allocated to uneven-aged management are shown on the special feature map.

*Regeneration  
of Stands*

262. Timber harvesting on lands suitable for timber production must be done under a regeneration harvest method where adequate stocking of desirable species\* is expected to occur within 5 years after the final harvest cut.\*\* The new stand must have adequate stocking as described in the following table. These apply to both artificial and natural means of stand regeneration. Where natural means are used and stand re-establishment has not been accomplished within 3 years after committing the stand to regeneration, the stand is re-examined for further treatment needs.

\* Desirable species are the species comprising the management type prescribed for the newly established stand. The management type for any regenerated stand is selected based on site conditions and the goals, objectives and desired future condition of the appropriate Management Area as described in the Revised Plan.

\*\* Five years after final harvest cut means: 5 years after clearcutting; 5 years after final shelterwood overstory removal; 5 years after seed tree removal; 5 years after group selection.

## **WEEDS**

291. Weeds are managed under directions specified in FSM 2080.1-2082 describing noxious weed management.

## **WILDLIFE**

292. Prescribed burns are allowed when meeting specific objectives such as restoration of habitat for threatened, endangered, and sensitive species, re-establishing natural ecosystems, site preparation, and wildlife habitat improvement.

293. Wildlife stand improvement (WSI) seeks to improve vegetation species composition in timber stands and to develop wildlife habitat areas for game and nongame species. A variety of woody and herbaceous species suited to site conditions and burning regime are maintained to assure year-round quality habitat.

294. Closed roads and wildlife habitat improvements are revegetated with non-invasive vegetation (preferably native to the mid-Appalachian area) for erosion control and wildlife habitat. Fescue is not used unless as a last resort in erosion control.

295. For understory species WSI, proper management allows full sunlight on 30 percent of the forest floor. For hardwood overstory WSI, thinning encourages full crown development, vigorous growth, and soft or hard mast production. When thinning stands older than 30 years, stems are favored which show positive indication of bearing soft or hard mast.

296. During TSI, WSI, and site preparation, selected groups of overstory and understory vegetation are protected and managed to assure a variety of soft mast, hard mast, and cover species. During site preparation, active and potential den trees are retained in clumps (at least 1/2 acre per 20 acres) if they are not provided in adjacent stands or inclusions. During TSI and WSI, all recognized den trees are protected. In addition, during TSI, WSI, and site preparation, an average of at least two standing dead snags are retained per acre in the form of large hardwood trees (greater than 12 inches) when possible. Appropriate treatments are used to create snags where natural snags are lacking.

297. Soft mast understory species such as dogwood and serviceberry over two inches DBH are retained where available and when their abundance does not inhibit adequate stand regeneration.

298. Out-year timber sale scheduling for timber sales located in Management Areas 14 and 15 is coordinated with VDGIF and WVDNR in order to provide the maximum degree of dispersion possible and minimize the degree of motorized disturbance.

299. To insure early input, wildlife and fisheries management activities (prescribed burning, wildlife opening management, roads management, etc.) are coordinated with VDGIF and WVDNR on an annual or an as-needed basis.

300. Multi-year wildlife/fisheries implementation plans are developed for each ranger district in cooperation with VDGIF and WVDNR.

*Road Density*

301. The road density goals for wildlife management areas are calculated as follows:

- a. Calculate the total area for the individual management area in question.
- b. Divide the total acres by the number of miles of open Forest Service system roads that penetrate the area. Boundary roads are not used in the calculation.
- c. Open roads are defined as any system road that is open for the general public to use anytime during the year. Roads temporarily opened to meet resource objectives, such as fuelwood gathering after a timber sale, are not defined as roads open to the general public.

*INDIANA BAT  
Primary Cave  
Protection Area*

302. Each Indiana bat hibernaculum will have a primary buffer (only as identified on public land) consisting of a radius no less than 0.8 km (0.5 miles) defined by watersheds. No disturbance that will result in the potential taking of an Indiana bat will occur within this buffer. Disturbance includes but is not limited to, timber harvesting and road construction. However, prescribed burning, road maintenance, and pesticide use will be evaluated during project level analysis to determine the direct, indirect, and cumulative effects on Indiana bats and the hibernacula. For clarification, timber harvesting and road construction is prohibited with this primary cave protection area. (USFWS BO Term and Condition 1(A)(a), page 29 and 30)

303. Starr Chapel, Kelly, and Shire's caves will be given a high priority for gating. (Starr Chapel was gated in 1994; Kelly and Shire's Caves were gated in 1995.)

304. Mountain Grove Saltpetre Cave will be gated if monitoring indicates increased human recreation and bat usage. (USFWS BO Conservation Recommendation 2, page 34)

305. If additional hibernacula are found, the caves will be gated, if necessary, to protect Indiana bats during the critical hibernation period.

306. All caves may be opened during the summer months for recreational use from May 1 to September 1.

307. The Rocky Hollow Cave will be given a high priority for acquisition (on a willing seller basis) since it is one of the largest known historic hibernacula in Virginia and is situated adjacent to GWJNFs lands. (USFWS BO Conservation Recommendation 1, page 33)

308. Private inholdings and lands in and near primary cave protection areas will be given a high priority for acquisition (on a willing seller basis). (USFWS BO Conservation Recommendation 3, page 34)

309. Management for other rare species within the primary cave protection areas will be evaluated during project level analysis to determine the direct, indirect, and cumulative effects on Indiana bats and the hibernacula.

*Secondary Cave  
Protection Area*

310. A secondary buffer of approximately 2.4 km (1.5 miles) around the primary buffer will have limited disturbance. The actual area will be determined by on-the-ground conditions and topography. Within this area, the following management activities can occur: regeneration timber sales (no clearcutting), thinning, road construction or reconstruction, prescribed burning, trail construction/reconstruction, special uses, and limited pesticide use. However, each proposed project will be evaluated to determine the direct, indirect, and cumulative effects on Indiana bats and the hibernacula. (USFWS BO Term and Condition 1(A)(b), page 30)

311. In order to promote fall foraging and swarming areas within the secondary cave protection area, timber activities will leave all shagbark hickory trees and retain a minimum average of 6 snags or cavity trees (9 inches DBH or greater) per acre as potential roost sites (except where they pose a safety hazard). For group selection harvest method, all shagbark hickories will be maintained (except where they pose a safety hazard) with no provision for minimum number of snags or cavity trees due to the small opening size (< 2 acres). (USFWS BO Term and Condition 1(A)(b), page 30)

312. The Forest land within each secondary cave protection area will be maintained using either of two following criteria:

a. A minimum of 60% of the acreage of all Forest Types will be maintained over 70 years of age; and a minimum of 40% acreage of CISC Forest Types 53 (white oak, red oak, hickory) and 56 (yellow poplar, white oak, red oak) will be maintained at an age greater than 80 years old;

OR

b. When the above age criteria cannot be met, forest stands receiving even-aged regeneration harvesting will be maintained with a minimum of 20 trees per acre in the 25-41 cm (10-16") diameter breast height (DBH) class and 15 trees per acre in the 41+ cm (16"+) DBH class of which two trees

per acre must be 51 cm (20") DBH or greater. (USFWS BO Term and Condition 1(A)(b), page 30)

313. The 0 - 10 age class will not exceed 10% at any time (regardless which of the criteria (in #3 above) are used. (USFWS BO Term and Condition 1(A)(b), page 30)

*Forest-Wide  
Protection*

314. In order to promote potential summer roost trees and maternity sites for the Indiana bat throughout the GWJNFs, timber activities will leave all shagbark hickory trees and a minimum average of 6 snags or cavity trees (9 inches DBH or larger) per acre (except where leaving such trees pose a safety hazard). For group selection harvest method, all shagbark hickories will be maintained (except where they pose a safety hazard) with no provision for minimum number of snags or cavity trees due to the small opening size (< 2 acres). In clearcut harvest units, the shagbark hickories will be maintained and snags or cavity trees may be scattered or clumped, but will average 6 per acre. (USFWS BO Term and Condition 1(B), pages 30 and 31)

315. To insure a continuous supply of roost trees and foraging habitat and until more data are gathered on Indiana bat roost sites in Virginia, the following forest-wide conditions must be maintained:

a. a minimum of 60% of the acreage of all Forest Types combined on the GWJNFs will be maintained over 70 years of age; and

b. a minimum of 40% acreage of CISC Forest Types 53 (white oak, red oak, hickory) and 56 (yellow poplar, white oak, red oak) will be maintained at an age greater than 80 years old. (USFWS BO Term and Condition 1(B), page 31)

316. As active roost trees are identified on the GWJNFs, they will be protected and managed until such time they no longer serve as a roost (e.g., loss of exfoliating bark or cavities, blown down, or decay). Removal of known Indiana bat roost trees will be avoided, except as specified below. In the event that it becomes absolutely necessary to remove a known Indiana bat roost tree, such a removal will be conducted, through informal consultation with the U.S. Fish and Wildlife Service, during the time period when the bats are likely to be in hibernation (November 15 through March 31). Trees identified as immediate threats to public safety may, however, be removed at any time. For clarification, examples of threats to public safety include trees leaning over a trail, public road or powerline that could fall at any time due to decay or damage; yet their removal cannot occur until consultation with USFWS is complete. (USFWS BO Term and Condition 1(C), page 31)

*Non-Cave Roosts*

317. The protection area will be defined as the roost tree and a 402 m (1/4 mile) buffer around the roost tree. No disturbance that will result in the potential taking of an Indiana bat will occur within this buffer. Disturbance includes but is not limited to logging, road construction, or pesticide use. Prescribed burning is allowed during the non-roosting season with each project being evaluated during project level analysis to determine the direct, indirect, and cumulative effects on Indiana bats.

318. If during project implementation, active roost trees are identified, all project activity will cease within a 1/4-mile buffer around the roost tree until consultation with USFWS is completed to determine whether project activities can resume.

*Upland Forests  
Foraging Areas &  
Riparian Areas*

319. The existing standards and guides identified in the respective GWJNF Forest Plans will be used to protect riparian areas. These standards and guides are presented in the Forest Plans.

320. Prescribed burning is allowed to occur on lands unsuitable for timber production to maintain flight and foraging corridors in upland and riparian areas potentially used by bats in the summer. (USFWS BO Conservation Recommendation 4, page 34)

321. Opportunities should be sought to include creation of drinking water sources for bats in project plans, where appropriate, in areas where no reliable sources of drinking water are available. Opportunities will be considered when the creation is not detrimental to other wetland-dependent species (i.e., damage to natural springs and seeps). (USFWS BO Conservation Recommendation 5, page 34)

*Maternity Sites*

322. As sites are identified they will be protected and managed. The protection area will be defined as the maternity roost, alternate roost sites, and adjacent foraging areas. If a maternity roost is found a radius of 3 km (2 miles) around each maternity site will be protected. No disturbances that will result in the potential taking of an Indiana Bat will occur within this buffer. Disturbance includes but is not limited to logging, road construction, or pesticide use. All other activities within this buffer will be evaluated during project level analysis to determine the direct, indirect, and cumulative effects on Indiana bats.

323. If during project implementation, active maternity sites are identified, all project activity will cease within a 2-mile buffer around the maternity roost until consultation with USFWS is completed to determine whether project activities can resume.

*Fall Foraging &  
Swarming Areas*

324. No additional strategy is necessary.

*Project Monitoring*

325. Monitoring of timber sales and other activities will be implemented as follows:

(a) Timber sale administrators or biologists will conduct and report normal inspections of all timber sales to the GWJNFs to ensure that measures to protect the Indiana bat have been implemented. Timber sale administrators will conduct normal inspections of all timber sales to administer provisions for protecting residual trees. (Residual trees are those trees not designated for cutting under provisions of the timber sale contract.) Unnecessary damage to residual trees will be documented in sale inspection reports and proper contractual or legal remedies will be taken. The GWJNFs will include this information in their annual monitoring reports. These will be made available to the Service, if requested. (USFWS BO Term and Condition 2(a), page 31)

(b) Informal consultations among the USFWS and the GWJNFs will occur as needed in order to review and determine any need to modify provisions of the biological opinion, and other issues regarding the Indiana bat. (USFWS BO Term and Condition 2(b), page 31)

*Other*

326. Care must be taken in handling dead specimens of listed species that are found in the project area to preserve biological material in the best possible state. In conjunction with the preservation of any dead specimens the finder has the responsibility to ensure that evidence intrinsic to determining cause of death of the specimen is not unnecessarily disturbed. Upon locating a dead, injured, or sick specimen of an endangered or threatened species, initial notification must be made to the nearest USFWS Law Enforcement Office. Additional notification should be made to the nearest U.S. Forest Service Special Agent. (USFWS BO Term and Condition 4, pages 32 and 33)

327. Where appropriate, training should be conducted for employees regarding bats in the National Forests. Training should include sections on bat identification, biology, habitat requirements, and sampling techniques. (USFWS BO Conservation Recommendation 6, page 34)

328. Informational/educational displays about bats should occur to inform the public about this misunderstood group of mammals. (USFWS BO Conservation Recommendation 8, page 34)