

SUMMARY OF FOREST PLAN AMENDMENTS

ALLEGHENY NATIONAL FOREST

<i>Amendment Number</i>	<i>Date</i>	<i>Content Summary</i>
1	February 5, 1991	Corrects three typographical errors made while editing the Forest Plan and revises a portion of the Management Area Map to show the correct location of a boundary on the Sheffield Ranger District.
2	May 22, 1991	Establishes general "programmatic" direction and guidance for controlling understory vegetation on the Allegheny National Forest and modifies the existing understory vegetation management direction (i.e., it allows Forest personnel to consider the use of both glyphosate and sulfometuron methyl, either individually or in combination, to accomplish understory vegetation management).
3	June 28, 1991	Brings the Forest Plan into conformance with 36 CFR 261.12(e), as amended, and current Standards and Guidelines listed in the Trails Management Handbook (6/85)
4	September 30, 1994	Allocates 12 tracts of land added to the Allegheny National Forest since 1982 to appropriate Management Area designations
5	November 25, 1996	Allocates a 36.59-acre tract of land added to the Allegheny National Forest in Fiscal Year 1996 to an appropriate Management Area designation. Also removes a 69-acre tract from National Forest ownership.
6	December 19, 1996	Provides direction for fish habitat management, including desired conditions for cold- and warm-water fish habitat. It also includes standards and guidelines for improvement and restoration work, and for coordination of water resources with various land disturbing activities. The amendment designates four Remote Trout Streams, and one stream will be added to the State's Wilderness Trout Stream program. Aquatic species are identified for monitoring.
7	September 4, 1997	Designates a corridor boundary for the Allegheny National Wild and Scenic River, approves the River Management Plan, and provides Forest Plan Standards and Guidelines for managing federal lands within the designated corridor.
8	September 8, 1997	Establishes both general "programmatic" and "site-specific" direction and guidance for controlling understory vegetation on electric utility rights-of-way crossing the Allegheny National Forest by following guidelines established in the EIS for Vegetation Management on Electric Utility Rights-of-way (May 1997) and its associated Record of Decision.
9	September 30, 1997	Disposal of a two-acre parcel as the result of a Small Tracts Act Claim.

LAND AND RESOURCE MANAGEMENT PLAN

ALLEGHENY NATIONAL FOREST

Amendment No 1

February 5, 1991

Posting Notice: Amendments to this Forest Plan are numbered consecutively. Check the last transmittal received for this Plan to see that the above amendment is received and posted. Do not post this amendment until the missing one(s) is received and posted. After posting, retain this transmittal until the next amendment to this Plan is received. Place it at the front of the Plan immediately behind the title page.

<u>Page Code</u>	<u>Page Color</u>	<u>Superseded</u> (Number of Pages)	<u>New</u>
4-29	Cream	1	1
4-84	Tan	1	1
4-130	Tan	1	1
Management Area Map	White	0	1

Digest.

- o 4-29 Page 4-29 was revised to correct a reference to a page number and table.
- o 4-84 Page 4-84 was revised to correct a column heading on a table.
- o 4-130 Page 4-130 was revised to correct a chart showing Visual Quality Objectives.
- Management Area Map A portion of the Management Area Map was revised to show the correct Management Area boundary on a portion of the Sheffield Ranger District.

Reason(s) for amendment The need to amend the Forest Plan is derived from several sources, as stated in the Forest Service Manual (FSM). This amendment is made for the following reason:

- 1 Changes to correct planning errors (FSM 1922.5)

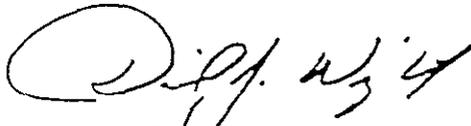
The following paragraphs describe the corrections in more detail:

- On page 4-29, paragraph 3, the reference to Table 4-24 was incorrect. The revised page gives the correct reference, Table 4-26, enabling readers to access the table

- * On page 4-84, Table 4-13, the heading for the second column from the right was incorrectly labeled "Decade 1." The revised page correctly labels the column as "Decade 2."
- * On page 4-130, the Visual Quality Objective (VQO) chart was incorrect. The VQO charts in the "6" series of Management Areas (6.1, 6.2, 6.3, and 6.4) should be identical. The revised page now displays the correct chart.
- * The Management Area (MA) Map incorrectly showed the boundary running along a portion of Hearts Content Road on the Sheffield Ranger District between Forest Road 116, on the west, to the private land boundary on the east. The actual boundary for MA 6.2 should have followed the snowmobile trail which is located south of the road, between Forest Roads 116 and 114 and then followed the powerline, approximately 200 feet from the road, east to private land.

A section of the map has been revised to show the correct MA boundary location. The total area involved in this correction is approximately 100 acres, parts of which are now correctly mapped as MA 6.1 and MA 3.0.

None of these revisions will significantly alter the Forest's multiple-use goals and objectives.



DAVID J. WRIGHT
Forest Supervisor

2/5/91
Date

All oil storage tanks should be centrally located in batteries whenever practical and kept at least 100 feet from drainages or streams. Batteries will be constructed to meet all federal and state requirements for spill containment

2600 WILDLIFE
HABITAT
MANAGEMENT

Wildlife Management

We began the planning process by reviewing the habitat requirements for all species that occur on the Forest. Special emphasis was directed at determining the effects of management on endangered species, species of special concern in Pennsylvania, important game species, furbearers, and non-game species. Management indicator species were selected to represent species having similar habitat requirements. We determined the habitat needed to maintain viable populations for each indicator species (See Table 4-3 in the Final EIS).

We then designed the individual management area objectives and the standards and guidelines to provide specific habitat conditions. Management areas vary in their capability to support each indicator species and associated species. After we developed the alternatives and knew the mix of management areas chosen in each, we evaluated the effects on big-game, small-game, furbearers, waterfowl, endangered species, species of special concern in Pennsylvania, and management indicator species. We found that each alternative provides adequate habitat to maintain viable populations of the species that occur in this area. For more information, see the discussion about wildlife in Chapter 4, Section D of the Final EIS. Table 4-26 displays the Forest-wide wildlife habitat objectives. The land management planning process records contain the habitat requirements for the individual species

Timber management practices will be used to improve wildlife habitat where feasible. Wildlife habitat improvement practices will be used to provide important components where timber management practices will not achieve our habitat objectives. Old growth timber stands will complement the wildlife habitats that are managed more intensively.

Wildlife habitat management investments should be directed towards the species emphasized in each management area. It should also include opportunities to manage specialized habitats and inclusions to benefit game and non-game species, indicator species, and species of special concern

All fish and wildlife stocking in waters and/or on lands administered by the Allegheny National Forest shall proceed only after concurrence is obtained from the Forest Service in cooperation with the Pennsylvania Fish and Game Commissions.

Habitat improvements for the species emphasized in each prescription should be designed to meet requirements of as many indicator species as practical.

Management indicator species for the Allegheny National Forest are: American Woodcock, Ruffed Grouse, Red-shouldered Hawk, Yellow-bellied Sapsucker, Pileated Woodpecker, Magnolia Warbler, Hermit Thrush, Black-throated Green Warbler, Great Blue Heron, Barred Owl, Beaver, White-tailed Deer, Rattlesnake, Brook Trout, and walleye.

Openings

Permanent openings may include savannas, hawthorne thickets, old apple orchards, old fields, pipelines, utility rights-of-way, American hornbeam stands, and other areas seeded to wildlife mixtures or composed of native vegetation.

Permanent openings will be provided on approximately six percent of the Forest. This will include four percent savannas and two percent in other types of openings (native shrubs, old fields, pipelines, utility rights-of-way, and areas seeded to wildlife mixtures).

Openings on other private land and State Game Lands will be included in any analysis to determine the need for additional acres in this habitat component.

Higher priority will be given to habitat management on large blocks of National Forest than on small isolated tracts.

Some areas will be managed along selected roads and water shorelines to attract wildlife for public viewing purposes.

Seeding of annual grain crops will be used primarily to establish desirable grasses and legumes.

Openings for wildlife species that are sensitive to disturbances by man will generally be located away from main roadways. Access may be regulated to minimize disturbance.

The following types of management activities will be ongoing within the area: timber harvesting and hauling of forest products; reforestation, timber stand improvements; wildlife habitat management work; and road, trail, and recreation facility construction and maintenance.

Specialized habitats and inclusions within the management area will receive treatments to specifically benefit small-game, non-game, indicator species, or species of special concern.

Recreational activities may include auto camping, ORV trailriding, auto touring, boating, day hiking, swimming, fishing, and hunting.

Administrative and law enforcement activities will be frequently seen in the area.

Activities, such as right-of-way maintenance, oil/gas well drilling and hydrofracturing, and oil/gas well maintenance, will occur in a portion of the area.

Table 4-12 Output Objectives for Management Area 3

Output by Management Problem	Unit of Measure	Average Annual Amount	
		Planned Decade 1	Projected Decade 2
		D (D2)	D (D2)
Developed Recreation Opportunities			
Roaded Natural	M RVD	15 (15)	26 (26)
Dispersed Recreation Opportunities			
Roaded Natural	M RVD	480 (388)	505 (390)
Timber Management			
Hardwood Sawtimber	MMBF	30 (29)	41 (33)
Hardwood Pulpwood	MMBF	47 (45)	39 (43)
Wildlife			
Big-Game Hunting	M WFUD	110 (97)	119 (102)
Small-Game Hunting	M WFUD	23 (22)	27 (26)
Non-Game	M WFUD	23 (19)	25 (20)
Fishing	M WFUD	32 (31)	35 (29)

Management Area 3

Table 4-13 Practices for Management Area 3

Management Practice	Unit of Measure	Average Annual Amount	
		Planned Decade 1 (D1)	Projected Decade 2 (D2)
Developed Recreation Area Construction			
Campgrounds	# of areas ¹	0 (0)	1 (1)
Dispersed Recreation-Trail Construction	miles		
Pedestrian	miles	1.2 (.6)	1.4 (.3)
Motorized-Winter	miles	1.1 (1.1)	1.1 (1.1)
Motorized-Summer	miles	12 (12)	12 (12)
Timber Practices			
Final Harvest Clearcuts	acres	292 (292)	302 (232)
Final Harvest - Shelterwood	acres	2628 (2628)	2718 (2088)
Thinning ²	acres	8360 (8460)	6760 (9360)
Timber Stand Improvement ³	acres	706 (606)	566 (766)
Herbicide	acres	1485 (1485)	1585 (1285)
Fertilization	acres	2256 (2256)	1156 (1056)
Fencing	acres	300 (300)	354 (354)
Planting	acres	190 (180)	180 (80)
Site Prep for Natural Regeneration	acres	1460 (1460)	1460 (1060)
Road Construction	miles	20.8 (22)	11.2 (16.5)
Road Reconstruction	miles	8.5 (9.0)	4.6 (6.7)
Wildlife and Fish Habitat Improvement			
Wildlife Habitat Improvement	acres	1176 (1176)	1541 (1389)
Wildlife Structures	# of struct.	0 (0)	6 (3)

- 1 Unit of measure for this practice is the number of recreation areas to be completed within the entire decade not an average annual amount.
- 2 The wide variation in thinning acres displayed here results from a modeling limitation caused by lumping analysis areas into 20-year age classes. The 60-year-old and 80-year-old age classes support thinnings in Decade 1 and 2, but the PNV is higher for the thinnings in Decade 1. The next cycle of planning 10 years hence will more adequately address thinning amounts in the second decade.
- 3 All of the acres shown for this practice are noncommercial cutting of pulpwood to complete the silvicultural prescription in commercial thinnings.

Emphasize semi-primitive non-motorized opportunities during 30 years of the 40-year cycle.

Administrative motorized vehicle use may be permitted only under emergency situations or as necessary for infrequent needs, such as construction and/or pumping vault toilets. Frequent use for routine maintenance wouldn't be permitted.

Provide roaded natural dispersed recreation opportunities during the 10-year harvesting period.

Recreation Sites

Construction of new sites may occur at development scale 1 or 2.

Maintenance of sites will follow guidelines contained in FSM 2330, referenced handbooks and ED&T #9099 titled "Cleaning Recreation Sites." Sites may be closed for economic or safety reasons.

Trails

*Trail management will be compatible with the ROS objective of semi-primitive non-motorized.

Trail types appropriate to this management area are:

- Pedestrian Summer
- Pedestrian Winter
- Equestrian Summer

The choice of which type to be constructed will be based on analysis of demand, existing supply (both public and private), suitable locations, plans of other agencies and plans of private sector at the time of implementation.

Trails may include two difficulty classes of More and Most Difficult to provide a range of experiences within the semi-primitive non-motorized ROS class.

Interpretation

At trailheads into the management area, personal contact, brochure racks, and bulletin boards will be utilized to interpret the environment and inform users about proper use of the area.

Management Area 6.2

Emphasize the dual objective of the area and inform users what to expect when visiting the area in each management cycle.

Off-Road Vehicles (ORV)

Use of motorized vehicles off roads will not be permitted. Exceptions include use of administrative vehicles, emergency vehicles, and use authorized by permit, contract, or outstanding private rights.

*Cultural Resources

*Priorities will be set for evaluation of cultural resources for the National Register of Historic Places.

*Assess the nature and degree of damage to cultural resources caused by vandalism, visitor use, and natural deterioration and identify protective measures to be implemented.

*Interpretation of cultural resources should be compatible with the natural character and recreation opportunities of this area.

Visual Quality

Management activities should meet the Visual Quality Objectives (VQO) displayed in the chart below by sensitivity levels, distance zones, and variety classes.

VARIETY CLASS	SENSITIVITY LEVEL & DISTANCE ZONE						
	FG1	MG1	BG1	FG2	MG2	BG2	3
Class A	R	R	R	R	R	PR	PR
Class B	R	PR	PR	PR	PR	M	M
Class C	PR	PR	PR	PR	M	M	M

Visual Quality Objectives - (R) Retention, (PR) Partial Retention, (M) Modification, (MM) Maximum Modification
Variety Class - (A) Distinction, (B) Common, (C) Minimal
Visual Distance Zone - (FG) Foreground, (MG) Middleground, (BG) Background
Sensitivity Level - (1) Most Sensitive, (2) Sensitive, (3) Least Sensitive

LAND AND RESOURCE MANAGEMENT PLAN

ALLECHENY NATIONAL FOREST

Amendment No. 2

May 22, 1991

Posting Notice Amendments to this Forest Plan are numbered consecutively.

<u>Page Code</u>	<u>Page Color</u>	<u>Superseded</u> (Number of Pages)	<u>New</u>
4-17	Ivory	1	1
D-15 - D-22	White	8	15

Digest

- o 4-17 Page 4-17 was revised to list both glyphosate and sulfometuron methyl as herbicides that currently best fulfill all understory vegetation management needs
- o D-17 through D-22 As amended, pages D-17 through D-22 summarize three vegetation management alternatives: 1) use only glyphosate; 2) use glyphosate and sulfometuron methyl; and 3) no understory control. It also describes several other alternatives which were considered but eliminated from detailed study.

The effects of implementing the three alternatives considered in detail are updated and include a discussion on human health, biodiversity, soils, vegetation, etc.

Cumulative environmental effects, corrected actions and health and safety are addressed.

The use of glyphosate and sulfometuron methyl is the preferred alternative.

D-13 J. WRIGHT
Forest Supervisor

Fencing

All hardwood planting areas will be fenced.

Fencing may be either woven wire, electric wire, or nylon mesh.

Fencing may be used to mitigate probable natural regeneration failures.

All regeneration areas must be reforested within five years after timber removal, therefore, fencing to protect seedlings (natural or planted) is a viable alternative in all forest types.

A stocking survey will be used to determine fencing needs. Fencing should be accomplished within one year when a stocking survey indicates a regeneration failure is likely.

Fence maintenance will be done, and removal will occur after the risk of significant animal damage has passed and stand has been certified as established.

Site Preparation

Most sites may require some degree of site preparation for both natural and artificial regeneration.

Site preparation includes removal of unwanted vegetation or slash from the site and/or shaping of the ground surface by mechanical methods or use of herbicides.

Herbicides may be used in timber stands lacking advanced regeneration and containing dense coverage of grasses, fern, numerous beech root suckers, or striped maple stems. The wildlife habitat value of key plants, such as Spring Beauty and Dog's Tooth Violet, that occur on specific sites will be considered in the evaluation process when selecting stands to be treated. Based on research and field trials, glyphosate and sulfometuron methyl currently best fulfill all management needs. Individual stand selection criteria and guidelines on application rates, time of year, and methods of application of glyphosate are provided in the Northeast Forest Experiment Station's publication titled "Prescribing Silvicultural Treatments in Hardwood Stands of the Alleghenies" and the Allegheny National Forest's 1991 FEIS for Understory Vegetation Management. As new information becomes available, other herbicides and/or treatment techniques may be used.

Site specific environmental analyses, which include management requirements, constraints, standards, and guidelines will be prepared. (See Section 2500 Water and Soil Management for buffer strip definitions)

The use of prescribed fire to control species composition of regeneration in oak stands is being studied by the Northeast Forest Experiment Station at Irvine, Pennsylvania. Any future use of prescribed fire will be based on guidelines to be provided by the Station resulting from the study.

Fertilization

The application of nutrients through fertilization may be done to stimulate or maintain vigorous seedling growth. This permits regeneration to grow above deer browse height in approximately two growing seasons. Fertilizer will be used primarily on the Allegheny hardwood forest type, since other types do not respond well to fertilization.

Nitrogen and phosphorus deficiencies in Allegheny hardwood timber stands can be corrected by the application of ammonium nitrate and triple superphosphate fertilizer. Application of such fertilizer is normally in the spring of the year shortly after leafout.

Nutrient deficient areas are not easily identified but appear to be very common in the Allegheny hardwoods type. The Northeast Forest Experiment Station and the Forest Service Reforestation Handbook (FSH 2409.263) contain guidelines on:

1. Recognizing nutrient deficiencies
2. Fertilizer application guidelines.
3. Evaluation of degree of wildlife browsing to assist in deciding whether or not to fertilize.

Harvested areas are generally broadcast fertilized, and individual tree fertilization is done by manual methods.

Buffer zone guidelines for bodies of water, perennial streams, and intermittent streams, are contained in Section 2500, Water and Soil Management

Site Preparation for Natural Regeneration

This activity involves treating the understory vegetation and undesirable tree stems remaining after a final harvest or shelterwood cut. On the Allegheny National Forest, we generally complete this by cutting down (using a chainsaw) all stems larger than two inches in diameter which have poor form, defects, or are not the species we desire in the new stand. These stems, if left in place, will use valuable growing space, nutrients, and water which the desirable seedlings and saplings will need.

Herbicide Treatment of Interfering Understory Vegetation.

The interference of understory vegetation with the establishment and growth of tree seedlings has been recognized as a problem on the ANF for at least a decade. As the forest approaches maturity, the need for a solution becomes critical.

Research projects have been conducted by the Forestry Sciences Laboratory (NEFES) in an effort to find solutions to this problem. Some techniques have been applied on a semi-commercial basis on the Forest and are in commercial use by other public agencies and companies in the area.

Background

When nayscented and New York fern are present beneath the overstory of a stand to be harvested, they often cause regeneration failure. Such stands often have 50 to 90 percent fewer desirable seedlings. Growth of these seedlings is poor, and seedlings do not usually grow above the herbaceous cover before they die. Striped maple and beech suckers also occur in the understory of many hardwood stands. When these species are abundant before cutting, they tend to become the dominant vegetation after cutting, crowding out desirable species of reproduction. When ground covers of fern or understories of striped maple or beech are excessive, as described in the Allegheny Hardwood Handbook, action should be taken to reduce the amounts of these plants before cutting so that satisfactory regeneration of the stand can be obtained.

We estimate that half of the Forest contains restrictive quantities of fern, striped maple, and/or beech suckers. On these areas, it is not possible to regenerate the

Forest with either even-aged or uneven-aged silvicultural prescriptions. Vertical diversity is lacking in the understory. This means there is less food and less cover for wildlife species.

The current situation results from a combination of factors. Selective browsing by large deer herds has drastically reduced or eliminated tree seedlings on many sites. Since fern, striped maple, and beech are not preferred deer food, they often survive and dominate the understory. Once established, these weed species are able to survive and interfere with reproduction of desirable tree species for an indefinite period of time. (For example, orchard stands and savannahs have been dominated by herbaceous plants for nearly 60 years). Reductions in deer population, shading of overstory, and similar ecological factors do not seem to reduce them enough to permit seedling regeneration. Some form of direct control of the undesirable plants is required. Control measures must be adopted during the 5 to 10 year period prior to harvest cutting in even-aged stands and immediately prior to each periodic harvest cutting in uneven-aged stands.

Alternatives Considered in Detail

1. Use Only Glyphosate

Continue to carry out understory treatment technology which was the local state-of-the-art when the Forest Plan was approved in 1986. It is the specific understory technique approved in the Forest Plan (Alternative D) until new and better understory management technology emerges. In this alternative, only glyphosate would be considered for use in future site-specific analyses. This alternative was considered in the Forest Plan and in the understory vegetation Management EIS.

2. Use Glyphosate and Sulfometuron Methyl

Permit Forest personnel to consider using both glyphosate and sulfometuron methyl during the site-specific analysis process. These herbicides may be used in combination or individually, depending on the vegetation present on the site. This alternative was only considered in the Understory Vegetation Management EIS.

No Understory Control

As timber stands attain maturity, regeneration through clearcutting, shelterwood cutting, or selection cutting would be prescribed where understory conditions would permit such action. Where fern, striped maple, and/or beech dominated the floor beneath mature stands, regeneration would be deferred indefinitely. This alternative was only considered in the Forest Plan.

Other Alternatives Considered but Eliminated

Prescribed fire, mechanical control, and the use of other herbicides were considered but eliminated from detailed analysis in both the Forest Plan and the Understory Vegetation Management EIS. The fencing only alternative, the use of glyphosate and sulfometuron methyl on all sites, and the sulfometuron methyl only alternative were considered but eliminated from detailed study in the Understory Vegetation Management EIS.

1. Eliminate Ferns, Striped Maple, Grass and Beech Suckers by Prescribed Burning

Reason Prescribed burning is the planned use of fire. It can be used to reduce understory competition, thus allowing desirable seedlings to become established in the understory. Factors evaluated when using prescribed fire include fuels (quantity, type, distribution, moisture content), topography (ruggedness, elevation, slope), weather (temperature, wind, humidity) and time of year. With the light fuel loads and typical moisture regimes on the forest, it is difficult to have all required conditions concurrently present to achieve a satisfactory burn. A conclusion reached in the Forest Plan.

Research has shown that striped maple and beech can be controlled with fire, however, two to three burns in successive years are needed to produce adequate control. A single burn does not reduce the cover of any of these plants and may actually stimulate it.

Fire does not provide adequate control of ferns. A single burn will consume the current hayscented fern foliage but also damages the underground fern rhizome and releases dormant buds. New rhizomes that develop from these buds produce foliage which will quickly result in a dense ground cover where previously only a few fern fronds were present.

Vegetation Management Practices - Rationale for Choice

Fire cannot be used to control grasses. Both single and repeated burns stimulate the germination of buried grass seed. Growth is actually stimulated since burning releases nitrates which promote growth.

Fire use, however, has several limitations on the Allegheny Plateau. First, the number of burning days are limited. During the 10-year period from 1960 to 1969, the Allegheny National Forest averaged only 3.5 days per year when wildfires occurred. Between 1977 and 1986, the average was 6.5 days per year. During the period between 1960 and 1969, forests where prescribed burning is used averaged 50 to 97 days per year when fire occurred.

Second, the Allegheny hardwood forest, the major timber type, does not develop a fuel accumulation large enough to sustain fires in each of three successive years. Thus, despite the potential effectiveness of fire as a weed control tool, it has limited value for a large scale program like understory control.

Third, burning would not protect existing intermingled tree seedlings.

2. Eliminate Ferns and/or Grasses by Manual or Mechanical Methods

Reason: This includes using powered or non-powered tools to cut or mow these species found within the understories. Non-powered tools are axes, brush hooks and hand clippers. Powered tools include chain saws, tractors with plows, and motorized brush cutters. Manual cutting tools sever vegetation above the ground line; soil is seldom disturbed.

Manual methods have been evaluated by the Northeastern Forest Experiment Station at Irvine PA and have been found not practical or ineffective on the Allegheny Plateau. Ferns can be controlled mechanically by plowing during the growing season or by mowing two to three times per year for two to three successive years.

Plowing is difficult because of interfering terrain, rocky soil, and interfering tree roots and stems, common to a forest setting. It also damages tree roots, which makes it undesirable to use. Mowing is similarly difficult to accomplish. All of these techniques are

Labor intensive and prohibitively expensive for treating fern tracks. Mechanical methods or physical disturbances do not help control grass but they actually increase its abundance on the forest floor. None of them would protect existing seedlings or overstory trees. This restates another decision reached in the Forest Plan.

3. Use Fencing Alone on All Sites to Establish Tree Seedlings (Eliminate the Need to Use Herbicides)

Reason: Fencing alone will not provide the ground conditions to allow tree seedlings to become established where interfering understory vegetation is the problem. There needs to be an adequate amount of light reaching the ground to allow seedlings to grow and become established. Competing understory vegetation intercepts this light and prevents it from reaching tree seedlings. Fencing is most effective where tree seedlings already exist and are of such a size that they are taller than any existing understory vegetation and are only being hindered by deer browsing. Fencing is used alone when conditions are right for its use.

Fern tracks, if left in place, will spread and completely recover an area regardless of whether the area is or is not fenced. Tree seedlings will not grow through these ferns.

4. Use Only Sulfometuron Methyl in the Herbicide Program

Reason: The degree of vegetation control for any herbicide varies according to species, species susceptibility, and height. Sulfometuron methyl effectively controls only ferns, some species of existing grass, and many species of grass and sedge just after the seed germinates but before the leaves emerge above the ground. It is not effective in controlling woody vegetation such as striped maple or beech nor is it labeled for such use. Therefore, it would be inappropriate and inconsistent with the herbicide label to consider using only sulfometuron methyl where the target vegetation includes woody vegetation.

5. Use Other Herbicides

Reason: Use of an herbicide other than glyphosate or sulfometuron methyl (or a mixture of the two) is not recommended at this time. These are the only herbicides that local evaluation has shown to be most applicable to

all target species, to be least costly, to meet soil water, health, and safety criteria, and that can be applied over the expected acreage needing treatment. Prior to operational use, efficacy of these herbicides was evaluated through research and administrative studies on small areas.

Other herbicides considered in the Forest Plan but recommended for understory control on the Allegheny National Forest are bromacil, dicloram, simazine, hexazinone, oryzalin, napropamide, diuron, flurochloridone, and terbacil. They were evaluated by the Forestry Sciences Laboratory for 1) efficacy, 2) economics of use, 3) potential hazards to the public, applicators and Forest Service employees, and 4) whether they have an Environmental Protection Agency (EPA) registration for forestry use.

Future research may identify a new or better herbicide that could be proposed for use on the Forest or more practical alternative treatment techniques. If this happens, Forest personnel will conduct an analysis and before it can be used on the Allegheny National Forest document the findings in a supplement to the EIS which includes an analysis of possible impacts to human health, the environment and non-target organisms.

6. Use Glyphosate/Sulfometuron Methyl Combination for the Entire Forest-wide herbicide Program

Reason: With this alternative the only treatment future site-specific analyses would consider is a mixture of glyphosate and sulfometuron methyl. There would be no option to consider using either herbicide by itself. This herbicide combination effectively controls fern, grasses, beech and striped maple but glyphosate also eliminates any tree seedlings present in the stand. Each herbicide controls specific types of vegetation, and there is no need to apply a specific herbicide if the specific type of vegetation it controls is not present on the site. In addition, glyphosate should not be used in those stands where it is desirable to retain existing tree seedlings.

Effects of Implementing the Alternatives Considered in Detail

Effectiveness

Results of 1987 through 1990 spray programs on the Forest show that glyphosate effectively controls striped maple, beech root suckers, grass that has already germinated at the time of spraying and ferns without broken stems. It does not control grass which germinates from seed following spraying or ferns which grow from small pieces of rhizome that have been broken off by spray vehicle tires or tracks. Based on recent local research findings, sulfometuron methyl provides these last two types of control.

Furthermore, glyphosate and sulfometuron methyl have been used operationally in an herbicide-shelterwood sequence by Hammermill Paper Company, Tg Forest Products, the Pennsylvania Department of Environmental Resources, and the Pennsylvania Game Commission. These companies and agencies have made a substantial financial investment in equipment to carry out this work. Moreover, both chemicals have been approved for forestry use by the Pennsylvania Department of Agriculture and the U S Environmental Protection Agency.

The environmental effects are summarized below for the three alternatives considered in detail. Under the no understory control alternative, there would be no effect on soils, water quality, air quality, cultural resources, minerals, human health or recreation. The no control alternative does, however, affect biodiversity, vegetation, visuals, wildlife, and socioeconomics.

Soils: When glyphosate reaches the soil it is completely and rapidly degraded by microbial activity within the soil environment. glyphosate is resistant to chemical degradation, stable to sunlight and relatively non-leachable. It strongly adsorbs to soil particles and has a minimal effect on soil microflora. It does not bioaccumulate in the soil and has no tendency to leach through the soil or to run off.

In the soil environment, sulfometuron methyl is broken down by the addition of water under acid conditions and by soil microorganisms. It does not bioaccumulate in the soil. It does not adsorb to soil particles as strongly as glyphosate.

Vegetation Management Practices - Rationale for Choice

A potential indirect effect to soils is compaction and erosion caused by the skidder or tractor used during application, but this impact would be mitigated through a pre-treatment examination of sensitive soils by a soil scientist to determine the appropriate equipment to use.

Water Quality: The Forest Plan provides buffer zones along perennial and intermittent streams, seeps and springs. Two years of water quality monitoring have shown that these buffer zones are adequate for keeping herbicides out of streams, seeps and springs.

Neither herbicide would move through the soil and into the groundwater. Glyphosate adsorbs strongly to soil particles, rarely penetrating the soil surface. Sulfometuron methyl may move several inches into the rooting zone but would be broken down by hydrolysis.

Air Quality: Because both glyphosate and sulfometuron methyl have a low volatility, are being applied from the ground and are being applied in relatively small amounts, effects on air quality would be minor, short-term and localized. Likewise, neither herbicide is expected to add a significant contribution to acid precipitation.

Cultural Resources: Cultural resource surveys would be conducted in all areas prior to herbicide treatment. Identified sites will be evaluated and protected as appropriate.

Minerals The effect of herbicide treatment on mineral resources is limited to the potential to rupture oil and gas pipelines. Whenever possible, pipelines are avoided by applying herbicides parallel to them.

Human Health: Potential herbicide effects on human health are analyzed in the Understory Vegetation Management FEIS, Appendix A - Human Health Risk Assessment. The Margin of Safety comparisons show that planned use of glyphosate and sulfometuron methyl should not affect any member of the public including sensitive individuals.

With either chemical, there is a slight chance that a sensitive worker could experience some temporary effects in the maximum exposure situation, but the potential of this happening is very low.

Neither glyphosate nor sulfometuron methyl is known to contain a carcinogen, and the risk of teratogenic, mutagenic and reproductive effects is negligible.

Biodiversity: Neither glyphosate nor sulfometuron methyl are expected to adversely affect natural ecological processes. Reducing the acreage of fern monoculture, coupled with a balanced deer herd would allow scarce plant associations to become more numerous. Viable populations of all plant and animal species will be maintained. Minor shifts in species composition of shrews, mice, and voles could occur but would not affect predators such as snakes and owls. Herbicide treatments are not expected to cause any direct habitat fragmentation.

Under the no control alternative, fern monocultures would remain on about half of the Forest. Biodiversity would remain low particularly in relation to understory vegetation.

Vegetation: Herbicide treatment would not have a direct effect on overstory vegetation. However, using herbicides helps the Forest make significant progress towards achieving the desired future condition for vegetative age class structure as specified in the Forest Plan. Herbicides aid tree seedling, shrub, and forb establishment and growth which allows the Allegheny National Forest to establish younger, more diverse, forested areas.

Competing understory vegetation would be controlled. Herbicide treatment would increase understory vegetation diversity the growing season following application. Abundant tree seedlings, shrubs, and forbs would have the opportunity to develop. However, if using glyphosate only, treated areas would have to be retreated in subsequent years to stop the spread of ferns from fern tracks.

Under the no control alternative, fern monocultures would continue to hinder the establishment of tree seedlings, shrubs, and forbs. About half of the Forest would lack tree seedlings and a shrub component.

Recreation and Visual For both glyphosate and sulfometuron methyl, treated vegetation would turn brown and die in two to four weeks. Recreation use may be displaced from the time of treatment until mid October.

Vegetation Management Practices - Rationale for Choice

Another visual impact is the bright yellow notification signs stapled intermittently to trees at selected points along the boundary of the treatment areas.

Under the no control alternative, large areas of fern would provide a visually pleasing landscape for some people.

Wildlife, Fish, and Endangered Species: The Wildlife and Aquatic Species Risk Assessment (Understory Vegetation Management EIS, Appendix C) shows that there is no significant risk to wildlife or aquatic species exposed to either glyphosate or sulfometuron methyl. Studies have shown high elimination rates and low tissue retention for both herbicides, indicating a very low risk of bioaccumulation.

Since herbicide treatments are usually followed by a series of even-aged silviculture treatments, the long-term impact is an increase in wildlife species diversity, vegetative age class diversity, vertical and horizontal diversity. Early successional wildlife species are favored.

Under the no control alternative, the lack of a mid-story layer of vegetation would reduce vertical diversity important for neotropical migrants and a variety of forest wildlife.

To fully comply with the Endangered Species Act, a biological assessment for threatened and endangered species was prepared and submitted to the USDI-Fish and Wildlife Service. They concurred with the assessment and responded with a biological opinion.

Socioeconomic: An annual program close to 2,000 acres using glyphosate only would cost from \$12,000 to \$46,000 more than using both herbicides, depending on the characteristics of the sites treated. The average annual difference would be close to \$20,000.

Using glyphosate only could result in a significant reduction in returns to the U.S. Treasury and payments to counties over the long term depending on the number of acres affected by both oak mortality and fern/grass interference. Local employment could also be reduced. Not all of these effects are difficult to quantify.

No control would result in an even greater reduction in returns to the U S Treasury and payments to counties over the long term, since timber harvest would not occur over large areas of the Forest. Local employment would be reduced. These effects would be significant but are difficult to quantify

Cumulative effects and connected actions are summarized as follows.

Soils: Glyphosate is quickly degraded by microbiological activity, so there is no build-up in the soil. Sulfometuron methyl is broken down by water under acidic conditions and by soil microorganisms and sunlight. Therefore, there are no direct cumulative effects to soils from either herbicide.

Indirect cumulative effects to soils could occur as a result of timber harvest (connected action) following herbicide treatment. More soil compaction could occur as a result of road building (connected action) and timber harvesting following herbicide treatment.

Water: There would be no direct cumulative effect on water, provided that the standards and guidelines in the Forest Plan are followed. The herbicide would not leach into the groundwater or run off into streams.

Indirect cumulative effects include a potential increase in sedimentation from timber harvesting and road building (connected actions)

Cultural Resources Neither herbicide treatment would lead to any cumulative effects on cultural resources, given the requirement that areas be surveyed for cultural resources prior to project implementation and that mitigation measures be incorporated as presented by a professional archaeologist

Minerals Except for the remote possibility of rupturing a pipeline, there are no effects on minerals. Herbicide application does not prevent the removal of minerals (connected action) from any particular site by the subsurface owner

Biodiversity: The cumulative impact to biodiversity would be a shift in wildlife species to favor early successional species in Management Area 30 in

Vegetation Management Practices - Rationale for Choice

accordance with the Forest Plan viable populations of all plant and animal species would be maintained.

Habitat fragmentation would occur as a result of road building and timber harvest (connected actions). This fragmentation and its effects on interior species, however, would occur mainly in Management Area 3.0 and other Management Areas would meet the habitat needs of interior species.

Human Health: Cumulative effects to human health are not likely to occur because none of the herbicides are persistent in the environment or in the human body.

Vegetation: Up to 16,000 additional acres could be treated with herbicides by the end of 1995. The cumulative effect of vegetation would be a reduction of fern, striped maple, beech brush, and grasses and an increase in tree seedlings and other herbaceous understory species. As the overstory trees are harvested (connected action) on this 16,000 acres, the indirect cumulative effect would be a significant improvement in age class diversity. With no control, large acreages would remain as a fern monoculture indefinitely.

Recreation: No direct cumulative effects would occur to dispersed or developed recreation. Indirect cumulative effects to recreation could occur as a result of timber harvest (connected action) following herbicide treatment.

Timber harvesting would change the existing landscape character to a mosaic of patterns, colors and textures on the landscape. Such changes would conform with the recreation opportunity spectrum (ROS) described in the Forest Plan.

Under the no control alternative, the vast areas of fern would remain indefinitely with little change in the landscape.

Wildlife, Fish and Endangered Species: Since neither glyphosate nor sulfometuron methyl bioaccumulates in animal tissues, there are no direct cumulative effects on wildlife, fish or endangered species.

The indirect cumulative effect on wildlife habitat would be a significant increase in vegetation age class diversity. Habitat for early successional species would increase as timber harvest (connected action) follows herbicide treatment. Habitat improvements (connected action) directed toward featured species would provide significant benefits to wildlife populations and help maintain a balance between animals numbers and habitat capability.

Under the no control alternative, timber harvest would be severely limited resulting in a forest of old and decadent trees with few new tree seedlings in the understory. Habitat would favor late successional species and neotropical species.

Synergistic Effects: Based on available data, it is possible, but quite unlikely, that synergistic effects could occur as a result of exposure to glyphosate and sulfometuron methyl

Safety and Health

The table on the following page compares the toxicity of glyphosate and sulfometuron methyl to other selected herbicides and to aspirin and table salt. Both herbicides are less toxic than aspirin or table salt and are registered for use on agricultural crop lands.

Roundup^R (glyphosate) is classified as only slightly toxic by oral ingestion with an acute LD₅₀ (lethal dose to 50 percent of the population when given as a single dose) to rats of 4,320 mg/kg of body weight (indicates low toxicity), and an oral LD₅₀ of 4,900 mg/kg of body weight (indicates low toxicity). Roundup is classified as practically nontoxic by skin contact since rabbits survived single dermal dosages greater than 7,940 mg/kg of body weight

Oust^R (sulfometuron methyl) is classified as very slightly toxic with an acute LD₅₀ to rats of more than 5,000 mg/kg of body-weight

More information is available in Appendix A - Human Health Risk Assessment, Understory Vegetation Management EIS.

**Acute Toxicity Classification and Acute Toxicities of Herbicides, Additives, and Formulations
Being Evaluated for Use in Vegetation Management in Relation to Other Chemicals**

Toxicity Category ¹ (Label Signal Words)	Herbicide or Other Chemical Substance	Oral LD ₅₀ for Rats (mg/kg)	Equivalent Human Dose
IV Very slight	Sugar	5,000-50,000 (range) 30,000	More than 1 pint
	Ethyl alcohol	13,700	
	Sulfometuron Methyl	> 5,000	
	Oust ²	> 5,000	
	Accora ²	> 5,000	
	Rodeo ³	> 5,000	
Valent X-77 ⁴	> 5,000		
III Slight (caution)	Roundup ²	500 - 5,000 (range) 4,900	1 ounce to 1 pint
	Glyphosate	4,320	
	Table Salt	3,750	
	Bleach	2,000	
	Aspirin, Vitamin B3	1,700	
II Moderate (warning)	Caffeine	50-500 (range) 200	1 teaspoon to 1 ounce
I Severe (danger-poison)	Nicotine	0-50 (range) 50	1 teaspoon or less
	Strychnine	30	
	Botulinus Toxin	0.0001	

¹ Categories, signal words, and LD₅₀ ranges are based on a classification system used by EPA for labeling pesticides

² Monsanto MSDS 1987

³ Monsanto MSDA 1985

⁴ Valent U.S.A. Corporation 1989

Source: Maxwell (1982) (as cited in Waisted and Oost, 1984)

Preferred Alternative

Glyphosate and sulfometuron methyl - This alternative should be preferred over all others listed, in most cases. It allows Forest personnel to consider using both glyphosate and sulfometuron methyl during the site-specific analysis process. This alternative provides more effective treatment of fern tracks (ferns that are broken off by the applicator's equipment) and grass seed banks.

It is the most effective, is applicable to all target species, is least costly, meets soil, water, health, and safety criteria, and could be applied over the expected acreage needing treatment.

Future research may identify a better herbicide to use here or more practical alternative treatment techniques. If this happens, we will evaluate their appropriateness and consider changing Forest-wide control methods for understory vegetation.

The Allegheny National Forest Herbicide Policy

Herbicides will be used to carry out silvicultural prescriptions as indicated in site-specific project EAs. This does not, however, preclude the use of other practices (i.e., planting, fencing, mechanical control, or fire) if the project EA shows them to be acceptable for existing on-site conditions. In addition, we will consider for future use, any new methods of stand regeneration which prove to be safe, economical, and biologically feasible.

LAND AND RESOURCE MANAGEMENT PLAN

ALLEGHENY NATIONAL FOREST

Amendment No. 3

June 28, 1991

<u>Page Code</u>	<u>Page Color</u>	<u>Superseded</u> (Number of Pages)	<u>New</u> (Number of Pages)
4-8	Ivory	-1	1

Digest:
p. 4-8

Paragraph 6 was revised to include a reference to Forest Service Handbook (FSH) 2309.8, on Trail Management, as amended in June 1985.

The paragraph under subheading "1. Motorized Summer" was revised to include a summary of standards for Motorized Summer Trail, as listed in FSH 2309.8.

DAVID J WRIGHT
Forest Supervisor

NEPA Process

Future environmental analyses (EAs) and environmental impact statements (EISs), will be tiered to the Forest Plan and EIS. Environmental Analyses and/or documentation of project level actions will address the site specific issues and concerns within the scope of the Forest Plan, EIS, and record of decision.

2100 ENVIRONMENTAL MANAGEMENT

Air Quality

If air quality problems-affecting forest resources are identified through monitoring resource conditions or through research, mitigation will be sought through coordination with the state regulatory agency.

*Pesticide Use

*Use only pesticides registered by the Environmental Protection Agency (EPA) in full accordance with the Federal Insecticide, Fungicide, Rodenticide Act as amended, except as other wise provided in regulations, orders, or permits issued by the EPA. In addition, certain pesticide uses require Regional Forester approval.

2300 RECREATION MANAGEMENT

Recreation Opportunities

*Road development and management will conform to the appropriate recreation opportunity spectrum class (ROS).

Recreation Sites

The needs of handicapped persons will be considered in the construction and rehabilitation of recreation sites.

Trails

*Management of National Scenic Trails and adjacent lands will be compatible with standards incorporated in the act establishing the trail and in the trail management plan.

*National Recreation Trails will be managed in accordance with the commitments associated with their designation.

The standards and guidelines for each management area will specify which of the following trail types to be appropriate:

Motorized Summer
Pedestrian Summer
Equestrian Summer
Motorized Winter
Pedestrian Winter

Multi-purpose trails will be encouraged. Trail design may include three difficulty classes to provide a full range of experiences. Emphasis on difficulty may also vary by management area.

Easiest - Accommodate moderate to heavy traffic on a safe and well-marked trail.

More Difficult - Accommodate moderate use on a trail which is safe for those users with backcountry experience and good physical ability.

Most Difficult - Accommodate low volume of users seeking to test their skills in rugged terrain. Route should appear challenging and require good physical conditioning.

Trails will be constructed and maintained to the Trails Management Handbook 6/85 design standards. Maximum trail grades, tread widths and clearing widths vary according to terrain and difficulty level. Low ranges are for the easy class of trails, and high for the most difficult. The Handbook standards are summarized as follows:

1. Motorized Summer:

Maximum sustained grades will vary from 15 to 30 percent, with short pitches up to 50 percent. Tread width ranges from 58 to 85 inches for ATV trails and 12 to 30 inches for motorized bike trails. Clearing width varies from 7 to 13.5 feet (including tread width), and clearing height from 5 to 8 feet.

2. Pedestrian Summer:

Maximum grades will vary from 20 percent to 50 percent, clearing width 3-4 feet, clearing height 8 feet, tread width 24 inches.

3. Equestrian Summer:

Maximum grades will vary from 10 percent to 30 percent, clearing width 6 feet, clearing height 10 feet, tread width 24-30 inches.

ALLEGHENY NATIONAL FOREST
LAND AND RESOURCE MANAGEMENT PLAN

October 4, 1994

Amendment No. 4

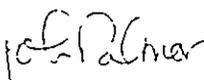
Posting Notice: Amendments to this Forest Plan are numbered consecutively. Check the last transmittal received for this Plan to see that the above amendment is received and posted. Do not post this amendment until any missing ones are received and posted

Digest of changes: Amendment No 4 makes the following changes to the pages specified.

<u>Page</u>	<u>Location</u>	<u>Change</u>
p 4-55	Table 4-5	Changes M acres assigned to Management Area 3 to 328 and M acres assigned to Management Area 6.1 to 103
	Paragraph 1	Changes 503,000 acres to 506,000
p 4-82	Heading	Changes 327,000 acres to 328,000
p 4-110	Heading	Changes 101,000 acres to 103,000
p 4-169	Heading	Changes 6,000 acres to 6,200
	Paragraph 1	Following 'Kane Experimental Forest (1,650 acres),' adds 'and Buckaloons Historic District (300 acres). Except for the scenic areas and the Buckaloons Historic District, the activities are administered by the Northeastern Forest Experiment Station'

In an effort to reduce duplication and mailing costs for the minor changes made to pages 4-55, 4-82 and 4-110, we ask that you make the appropriate acreage changes in your copy of the Forest Plan

We are enclosing a copy of revised page 4-169 (tan) which replaces that same page in your copy of the Forest Plan. In addition, we are including Area Maps which identify the 12 parcels of land added to the Forest (refer to the Decision Memo for specific Management Area assignments)


JOHN E PALMER
Forest Supervisor

4/30/94
Date

Description for Management Area 8 (6,200 acres)

The emphasis in this management area is management of four special areas on the Forest: Tionesta Scenic Area (2,018 acres), Tionesta Research Natural Area (2,113 acres), Hearts Content Scenic Area (122 acres), Kane Experimental Forest (1,650 acres), and Buckaloons Historic District (300 acres). Except for the scenic areas and Buckaloons Historic District, the activities are administered by the Northeastern Forest Experiment Station.

The primary purpose for Hearts Content Scenic Area and Tionesta Scenic Area is to:

- Protect the unique areas of national significance and provide dispersed recreation opportunities that emphasize the area's uniqueness
- Preserve the unique ecosystems for scientific purposes.

The primary purpose for Tionesta Research Natural Area is to:

- Preserve the unique ecosystem for scientific purposes.

The primary purpose for Kane Experimental Forest is to:

- Provide an area where we will conduct research to improve the benefits of forests.

The areas encompass many vegetative types from open fields to virgin timber stands.

State, township, and Forest Service administered arterial and collector roads may be located within this management area. Forest Service local roads, Traffic Service Level (TSL) "C & D", will be closed to all public traffic except for certain exceptions for recreation purposes.

Recreational facilities and structures may be present but generally designed to be compatible with the natural surroundings. Facilities could range from primitive structures to highly developed sites, except in the Kane Experimental Forest and Tionesta Research Natural Area where none will exist.

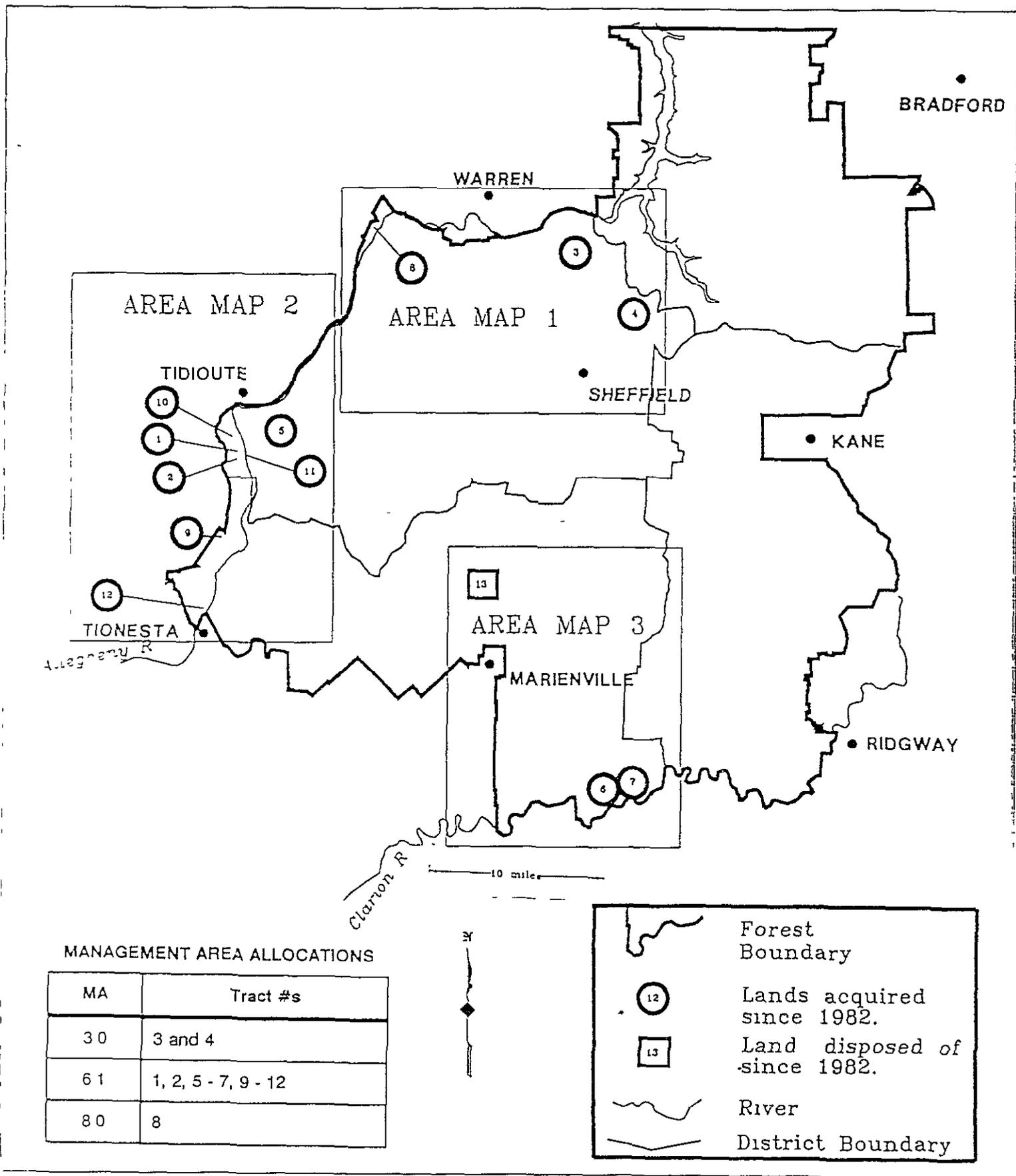
Management Area 8

Recreation and use will vary, from substantially unnoticeable to very evident. Evidence of human activities will vary depending on the area's purpose, but activity generally will be controlled to reduce adverse impacts on the sites.

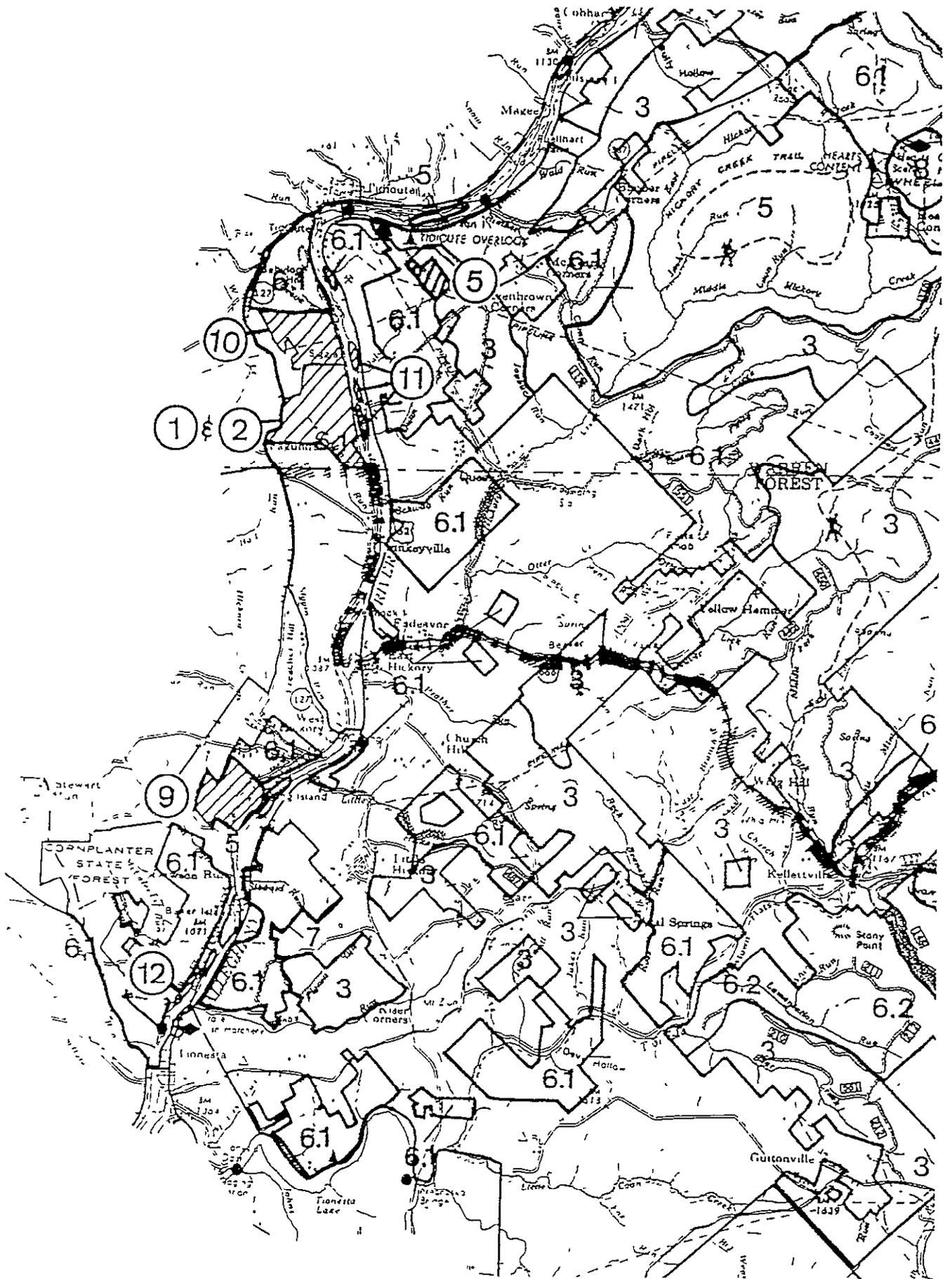
Administrative activities could include timber, wildlife, and recreation management functions. The unique characteristics of these areas require that they be protected by law or administrative order. Law enforcement and associated administrative activities may be common within the areas.

FOREST MAP

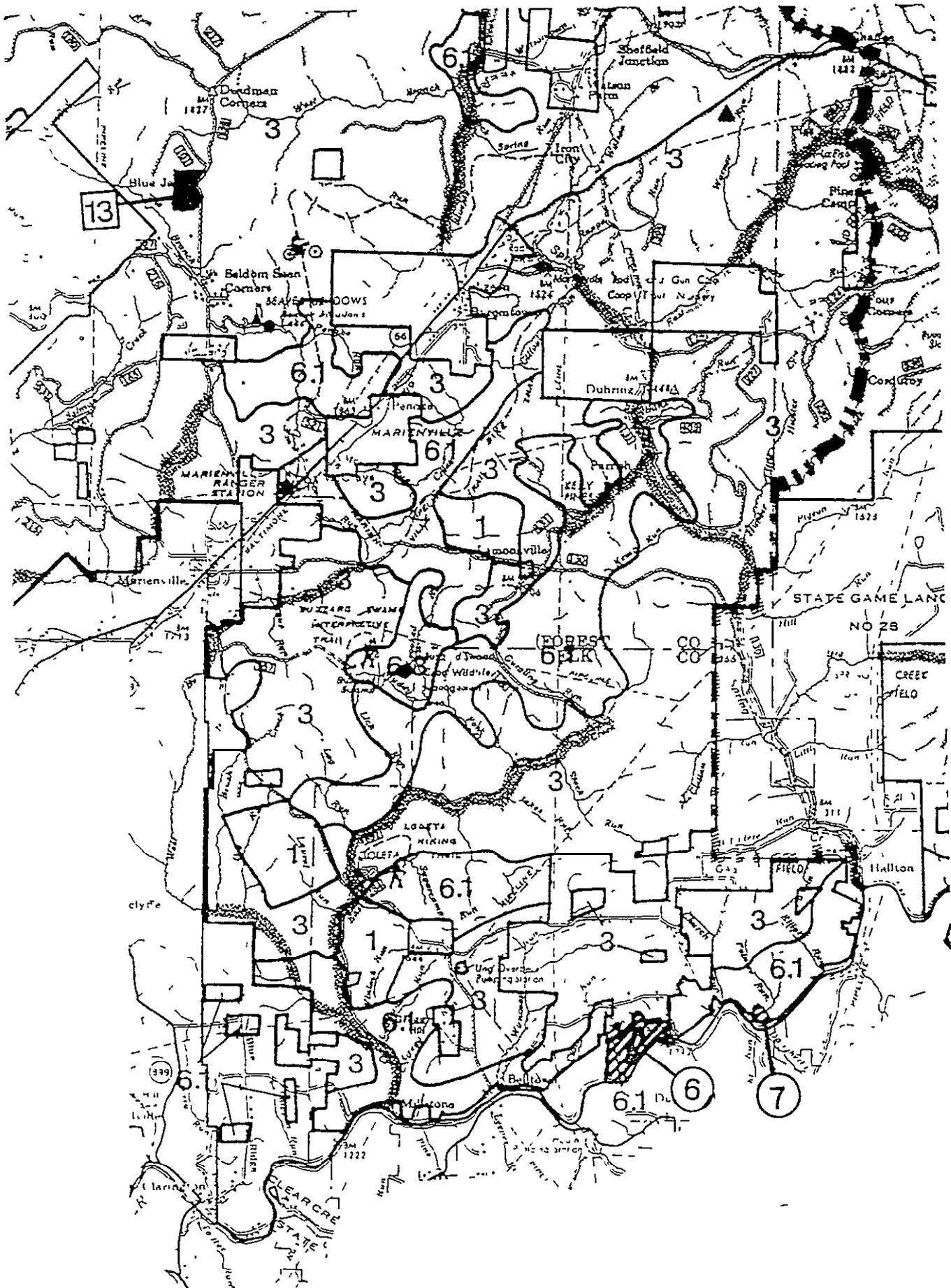
(with area map insets)



AREA MAP 2



AREA MAP 3



ALLEGHENY NATIONAL FOREST
LAND AND RESOURCE MANAGEMENT PLAN

November 25, 1996

Amendment No. 5

Posting Notice: Amendments to this Forest Plan are numbered consecutively. Check the last transmittal received for this Plan to see that the above amendment is received and posted. Do not post this amendment until any missing ones are received and posted.

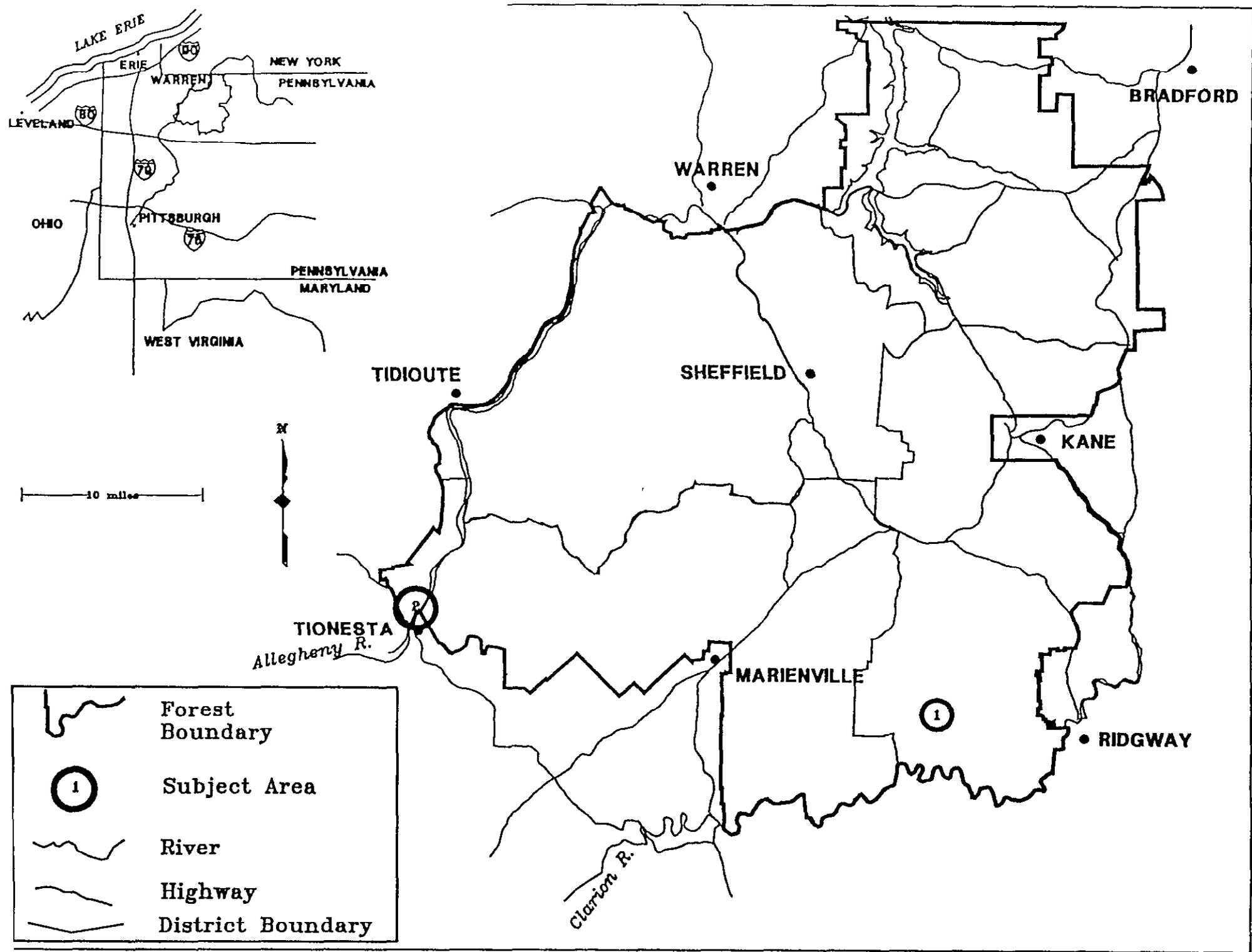
Digest of changes: Amendment No 5 makes the following change to the page specified.

<u>Page</u>	<u>Location</u>	<u>Change</u>
p 4-110	Heading	Changes 103,000 acres to <i>103,036</i>

In an effort to reduce duplication and mailing costs for the minor changes made to page 4-110, we ask that you make the appropriate acreage changes in your copy of the Forest Plan

In addition, we are including Area Maps which identify the parcel of land added to the Forest as well as the 69-acre parcel that had been removed from National Forest ownership

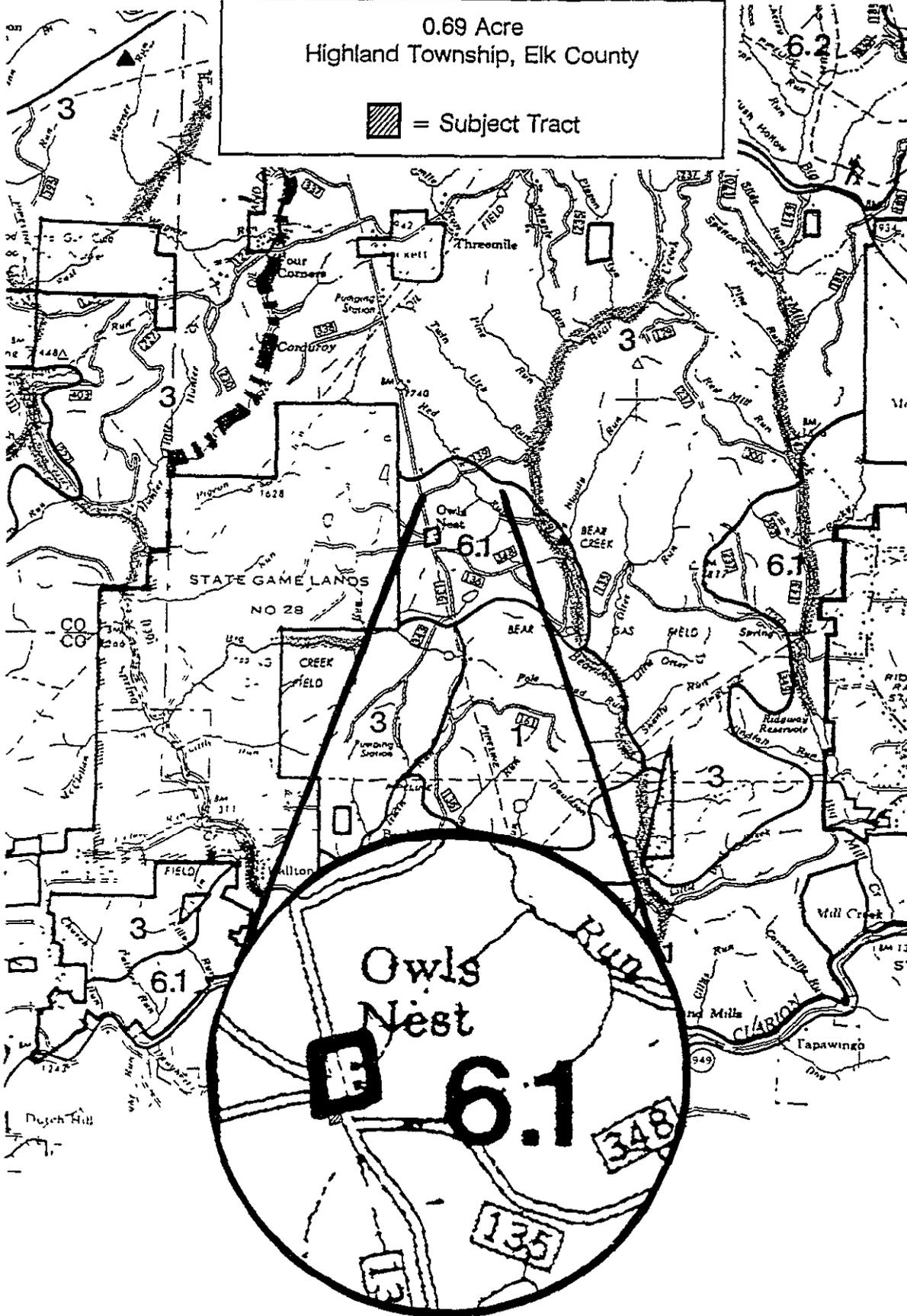
JOHN E PALMER
Forest Supervisor



PARCEL 1

0.69 Acre
Highland Township, Elk County

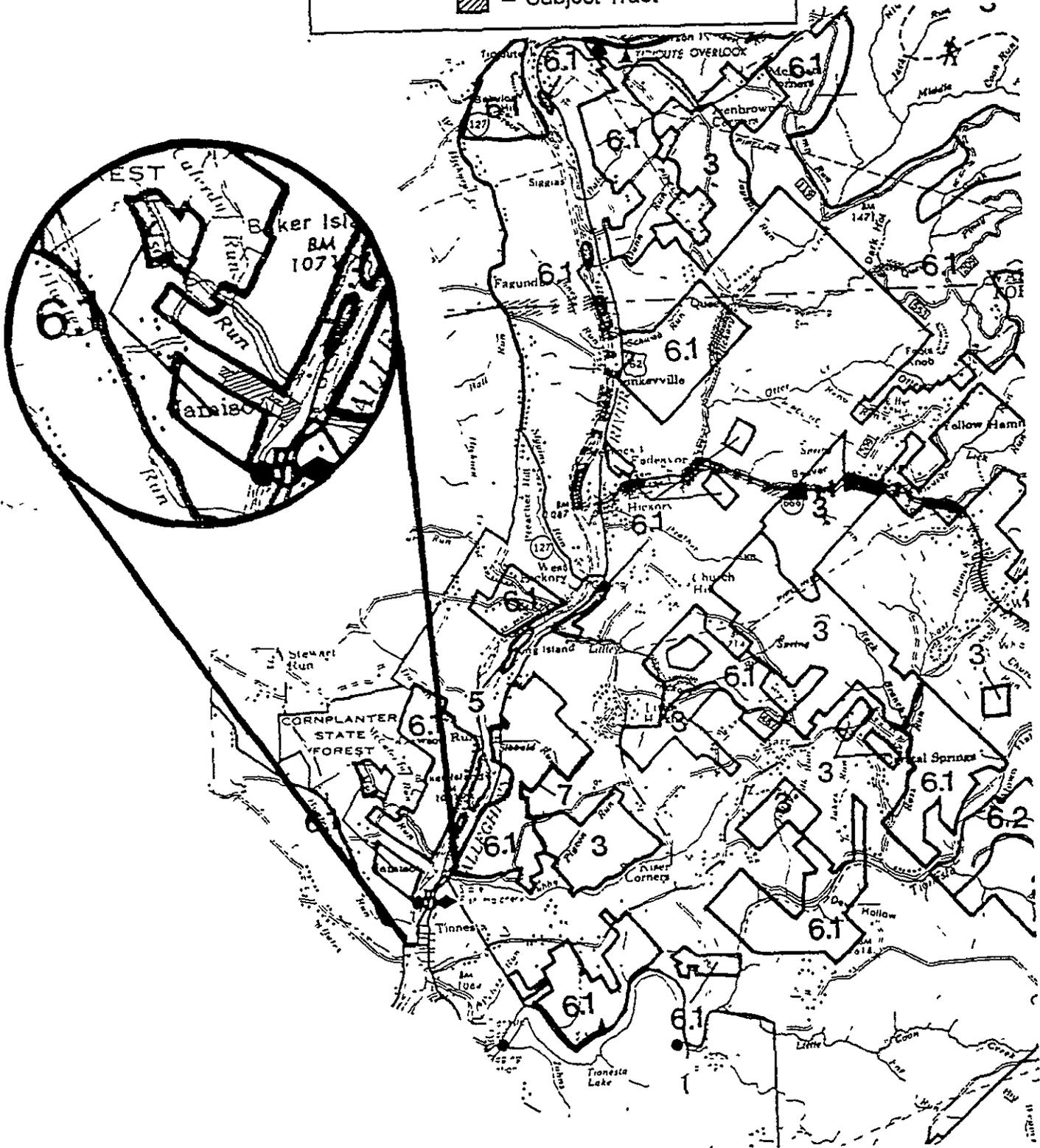
 = Subject Tract



PARCEL 2

36.59 Acres
Tionesta Township, Forest County

 = Subject Tract



LAND AND RESOURCE MANAGEMENT PLAN

ALLEGHENY NATIONAL FOREST

Amendment No. 6

February 21, 1997

Posting Notice: Amendments to this Forest Plan are numbered consecutively.

<u>Page Code</u>	<u>Page Color</u>	<u>Superseded</u> (Number of pages)	<u>New</u>
4-10	Ivory	1	1
4-19 & 19a	Ivory	1	2
4-24 - 28b	Ivory	5	7
4-34 - 35	Ivory	2	3
4-93	Tan	1	1
4-112	Tan	1	1
4-121 - 122	Tan	2	2
4-135	Tan	1	1
4-157	Tan	1	1
4-173	Tan	1	1
3-2	white	1	1
3-5	white	1	1
C-1	white	1	1

Digest

- 4-10 This page incorporates language excluding 6077 acres from development of ORV trails within the Westline Intensive Use Area in order to meet the intent of the State Wilderness Trout Stream program for South Branch Kinzua Creek from Hubert Run upstream to Forest Road 186.
- 4-19 & 19a These pages amend the 2500 section of the Forest Plan for management of riparian areas to meet fisheries habitat objectives.

- 4-24 - 28b These pages amend the 2500 section of the Forest Plan for management of riparian areas, specifically the coordination of water resources with timber, recreation, transportation, and oil/gas management.
- 4-34 - 35 These pages amend the 2600 section of the Forest Plan related to Fish Habitat Management. Included are objectives and standards and guidelines related to streams, impoundments, Allegheny Reservoir, wilderness and remote trout streams, and liming.
- 4-93 This page includes references to the State Wilderness Trout Stream program and the Federal Remote Trout Stream program for Management Area 3.0.
- 4-112 This page updates the table to reflect that the number of fish habitat improvement structures for the second decade of the Forest Plan will be based on a habitat management plan for the Allegheny Reservoir (Management Area 6.1).
- 4-121 - 122 The standard for the Wilderness Trout Stream program is moved to the Fish section, and Remote Trout Stream language is added to this section as well for Management Area 6.1
- 4-135 Remote Trout Stream language is added to the Fish section for Management Area 6.2.
- 4-157 Remote Trout Stream language is added to the 2600 section for Management Area 6.4
- 4-178 Remote Trout Stream language is added to the 2600 section for Management Area 8.0.
- B-2 Aquatic species identified for monitoring are included in Appendix B of the Forest Plan.
- B-5 Aquatic insect monitoring is added to the Wildlife Habitat Management Problem section in Appendix B of the Forest Plan
- C-1 Fish Structures - Lake is edited to state projected number of structures for Decade 2 will be determined on a habitat management plan. This is located in Appendix C of the Forest Plan.

JOHN E. PALMER
Forest Supervisor

4. Motorized Winter:

Maximum grades will vary from 20 to 50 percent, clearing width 9-16 feet, clearing height 10 feet, tread width 5-12 feet.

5. Pedestrian Winter:

Maximum grades will vary from 10 to 25 percent, clearing width 5-8 feet, clearing height 10 feet, tread width 18-24 inches. Surface will vary from smooth to irregular with obstacles up to 6 inches high.

Off-Road Vehicles (ORV)

These standards apply only to National Forest lands, they do not provide policies to regulate motor vehicle use on the Forest road system. The concepts used to develop the Forest's ORV policy including identification of the five intensive ORV use areas mentioned below are discussed in the USDA-Forest Service Final EIS for Off-Road Vehicles, dated 1977.

Unlicensed ORVs are permitted only on designated ORV trails; all cross-country motorized vehicular use is prohibited

ORV trail systems will use a combination of constructed trails, roads closed to other highway vehicles, and roads jointly used by ORVs and other highway vehicles

ORV trails will be constructed and maintained in a permanent location to prevent erosion or impact to natural resources. This does not preclude temporary rerouting to facilitate other resource activities

In all Management Areas except 5 (Wilderness), cross-country use is allowed for administrative vehicles, emergency vehicles, and use authorized by permit or contract (required by outstanding private OCM rights).

All off-road vehicle use which occurs on roads and ORV trails is subject to Forest Service off-road vehicle regulations and other applicable state and federal regulations.

Five intensive ORV use areas are located on the Forest. All new ORV trail construction is limited to these five areas. Connector trails located outside these areas will be limited

to redesignation of existing system roads. Whenever possible, ORV use within these areas is restricted to designated trails.

Marshburg-Stickney: Bounded on the west by Forest Road 137, on the north by State Route 346, on the south by State Route 321, eastward to National Forest Boundary or western boundary of the Bradford Municipal Watershed.

Westline: Bounded on the west by State Route 321, on the north by Forest Route 122, on the east U.S. Highway 219 to National Forest Boundary on the south. To meet the intent of the State Wilderness Trout Stream program, 6077 acres within this IUA is excluded from future ORV trail development surrounding South Branch Kinzua Creek from Hubert Run upstream to Forest Road 186.

Highland - Owls Nest - Twin Lakes: Bounded on the north by State Route 948, on the east by Bear Creek, on the south by north line of Warrants 1563-66, and on the west by Forest Roads 343, 344, and 136 along a line projected northward to Chaffee Corners. Twin Lakes is a small separate area around the impoundment and recreation area with National Forest Boundary on the north and Kane Experimental Forest on the south.

Bluejay - Duhring. Bounded on the south by Forest Road 130, on the west by Forest Road 123, on the north by general line from Lynch to Watson Farm to Pig's Ear and south to state Game lands.

Grunderville - Chapman: Bounded on the south by Forest Road 437, on the west by State Route 337 and Lennart Run Road, southeasterly along a general line to the junction where Forest Road 155 joins the Chapman Dam Road.

Cultural Resources

*Conduct cultural resource surveys and needed evaluations in all areas to be affected by land transfer and earth-disturbing activities and design activities to avoid, minimize, or mitigate adverse effects.

*Forest will schedule the inventory of cultural resources on all National Forest System lands, giving priority to areas with high potential for disturbance.

Interpretation may occur during the evaluation or the excavation of major sites, and the excavation may be featured as well as the findings of the evaluation or excavation.

Precommercial Thinning

Precommercial thinning may be appropriate in those timber stands that have a stocking level of 80% or more and contain a substantial share of their stocking (basal area) in saplings.

Goal should be to remove poorly formed trees and low-valued individuals that threaten the potential crop trees.

Silvicultural guidelines for precommercial thinning are provided in "Prescribing Silvicultural Treatments in Hardwood Stands of the Alleghenies" publication. (Appendix D contains additional information.)

Non-Commercial Thinning

Non-commercial thinning may be used to remove pulpwood in those instances where the option was not exercised by the timber purchaser.

2500 WATER AND SOIL MANAGEMENT

Best Management Practices

Best management practices for controlling nonpoint source pollution are contained in the Forest-wide and Management Area sets of standards and guidelines in the 2500 section. These practices are to be applied based on evaluation of site-specific conditions.

Riparian Area Management

Riparian areas will be managed under the principles of multiple use and sustained yield. Preferential consideration will be given to riparian dependent resources in riparian areas and in the area 100 feet from either edge of perennial streams and other water bodies. Riparian-dependent resources include, but are not limited to, wildlife habitat, fish habitat, recreation opportunities, and water quality. Riparian areas will be delineated and evaluated prior to implementing any project activity. Standards and guidelines addressing riparian resources other than soil and water are found under those resource headings.

Management objectives for perennial streams are to:

- have average daily maximum stream temperatures less than or equal to 63°F in streams supporting cold-water communities

- provide habitat complexity, channel stability, and pool formation in cold-water streams by managing for the recruitment and long-term maintenance of 75-330 pieces of instream large woody material per stream mile. For cool- and warm-water streams, manage for 75-200 pieces of instream large woody material per stream mile

- provide a sufficient number of biological mature trees growing along streams to provide for long-term input of large woody material

- maintain trees that providing streambank stability.

Management objectives for intermittent streams are to.

- maintain trees that are providing streambank stability

- maintain trees growing within a stream channel

- manage for leaf litter input

- manage for input of woody material.

Woody material naturally occurring in streams is removed only when fisheries habitat is being degraded or when unacceptable damage is occurring to facilities such as bridges and culverts. The need for removal is determined on a case-by-case basis.

Floodplains and Wetlands

Floodplains and wetlands will be managed in accord with Executive Orders 11988 and 11990, which are designed to protect the values of floodplains and wetlands. In general, management activities in these areas will be consistent with protecting the beneficial values of the areas and protecting public safety. Rehabilitation of existing facilities or construction of new facilities, such as roads and buildings, will only occur in floodplains and wetlands where no practical alternatives exist.

Soil and Water Resource Improvement

Disturbed areas that influence soil productivity or water quality will be evaluated and priority-ranked for restoration. Disturbed areas may include borrow pits, oil/gas developments, debris dams from storm flows, and areas damaged by illegal off-road vehicle use. The first priority for plugging abandoned oil and gas wells in federal mineral ownership will be those wells which pose an immediate safety hazard or are polluting surface or ground water. Watershed improvement projects will be designed so that restored areas meet the resource objectives of the management area.

Priority ranking of water resources improvement projects will consider the use of the water body and source of impact

Priority Use of Water Body

Higher	Municipal watershed Exceptional Value/Wilderness Trout Streams** High Quality/Native Trout Streams** High Quality/Stocked Trout Streams**
Lower	Cold Water Fish/Native or Stocked Trout Streams**

**State water Quality Standard/Type of Fishery Management

Priority Source of Impact

Higher	Soils and water bodies affected by long-term adverse impacts caused by management practices or natural forces
Lower	Soils and water bodies affected by short-term adverse impacts caused by management practices or uses.

- Timber harvesting restrictions are necessary on these soils. Timber skidding equipment will be limited to low ground pressure type models or cable logging systems. Such low ground pressure models will express maximums of seven pounds per square inch (psi) with the machine alone, and 12 psi when the machine is skidding.
- Uneven-aged management should be used on these sites to prevent regeneration failure.
- Scattered residual trees should not be left on these sites due to the high hazard of windthrow.
- These sites are not suitable for recreational developments.
- ORV and hiking trails located on these soils should be built with special surfacing techniques.
- Subsurface water pressure on these sites may dislodge standard toilet vaults and thrust them to the surface. If they must be installed here, use special engineering design to prevent this from occurring.
- Where there is no alternative to constructing roads on these soils, geotextiles will be used.
- Encourage oil/gas operators to use geotextiles in road and drilling pad construction.
- Containment pits for fluids produced from oil and gas operations should not be constructed on these soils due to the high water table.
- If containment pits are built, they must be lined with an impermeable material.

Coordination of Water Resources with Timber Management

Logging systems should be laid out systematically to minimize the number and length of roads needed and to improve the efficiency of the system.

The grade of temporary roads and skid trails should not exceed 15 percent, except lengths up to 200 feet may pitch to 20 percent when sufficient cross-drainage is provided.

Timber harvesting restrictions for poorly and moderately drained soils are provided in the previous text on Soil Groups II and III.

Temporary roads and skid trails will be cross-drained to prevent erosion and sedimentation into streams. After use, all facilities including landings should be permanently closed and erosion-controlled.

Landings located next to system roads may be used for hunter parking or other long-term uses if analysis indicates such a need.

Landings should be located and designed so that sediment will settle out before runoff reaches watercourses. Landings that must unavoidably be located on poorly drained soil types should be used only when the ground is dry or the landing is adequately surfaced.

Bridges, low-water crossings with pipes, or culverts will be provided to cross perennial and intermittent streams and will be designed so as not to impede upstream fish movement on fish-bearing streams.

All temporary fills in stream channels shall be removed in their entirety and the area restored to its original elevation.

Sale layout will avoid, to the extent practical, the need for skidders to cross perennial and intermittent streams. Crossing by skidders will occur only at designated sites. A temporary crossing will be constructed to prevent degradation of stream banks and bed.

No skidding or trucking is permitted down any portion of any stream or streambed.

Concerning perennial and intermittent streams:

- A filter strip should be maintained to minimize the movement of silt, mud, and other organic matter into the stream. A suggested width is 30 feet plus 2 feet for every one percent of slope adjacent to each side of the stream or the actual size of the riparian area, whichever is larger.
- Streams will be kept free of logging debris, sawdust, equipment, oil, and other materials or obstructions that interfere with the orderly flow of water or adversely affect water quality.
- Logging operations should maintain the existing structure and shape of streambanks. This includes maintaining trees that are providing streambank stability, trees growing within the channel, and trees that have a high potential for providing instream woody material.

- A canopy of high and/or low space should be provided along perennial streams. This should protect the streams from excessive exposure to direct sunlight that would increase temperatures above that tolerable to the existing fish species. For cold-water streams, water temperatures should have an average daily maximum less than or equal to 68°F.

No herbicide will be sprayed on any stream or spring seep. The following buffer strips will be established for all spray projects using ground application equipment.

- A 75-foot buffer will be maintained along perennial streams, intermittent streams that have flowing water on the day of spraying, and impoundments or lakes
- A 50-foot buffer will be maintained along intermittent streams not flowing water, and spring seeps that drain into a stream
- A 25-foot buffer will be maintained around small seep areas that do not have an outflow channel draining to a stream.

These widths may need to be expanded after evaluation of specific sites, i.e., for steep topography.

During aerial fertilization projects, a buffer strip equal to three-fourths of the swath width will be maintained along streams with flowing water. This buffer strip will generally be in the range of 50 to 100 feet wide.

Coordination of Water Resources with Recreation Management

New ORV trails should be constructed outside of the riparian area (save crossings) and where an effective filter strip is present to prevent sediment from entering a streamcourse. The type of trail surfacing material to be used will depend on how effective the filtering capability of a filter strip is.

For existing off-road vehicle trails that have been identified as contributing sediment to a perennial or intermittent stream, a surfacing material that would reduce sediment to a streamcourse should be used.

Trails will be cross-drained to prevent erosion and sedimentation into streams. Trail runoff should not directly enter a perennial or intermittent or spring, e.g. runoff should not be directed to a culvert that is being used to

cross a trail over a perennial or intermittent stream or spring.

In designing trails, segments with steep grades will be located so that eroded material will not enter perennial or intermittent streams.

ORV trails should cross perennial streams via bridges or culverts. Bridges, culverts, or rocked fords where suitable to stream type and topography may be used to cross intermittent streams. In the design of crossings, attention should be given to preventing vehicle use in streams and damage to stream banks.

ORV trail construction/reconstruction at perennial and intermittent stream crossings, and areas that could affect water quality, should use appropriate interim erosion control and final stabilization measures. This could include hydroseeding or conventional seeding and mulching, placing biodegradable erosion control matting on exposed soil, or other appropriate methods. The interim control measures should be done concurrently with the activity. The erosion control measures would be designed to reduce the impact of raindrops on exposed soil and surface runoff.

Stream crossings will be designed so as not to impede upstream fish movement.

Locate stream crossings for hiking trails at sites with stable streambanks and streambeds

Erosion and sediment control practices will be used during construction of recreation sites.

Coordination of Water Resources with Transportation

An engineering guide titled "Guidelines for Road Design in Proximity to Streams" will be used to address the "how-to" for several of the standards in this section.

The suggested distance between new roads and perennial and intermittent streams would be beyond the riparian area and where an effective filter strip is present to prevent sediment from entering a streamcourse. The type of road surfacing material to be used will depend on how effective the filtering capabilities of the filter strip are.

During planning of the reconstruction of existing roads, avoid poorly drained soils (Soil Group III). For existing roads that are within a riparian area or do not have an effective filter strip between the road and a perennial or intermittent stream, an evaluation will be made to determine if a road should be rerouted, closed, or if a road should be left in place and improved to reduce sediment runoff.

Although some new roads will require stream crossings, road systems will be planned to avoid or eliminate the crossing of perennial streams whenever reasonably possible.

For most road crossings, dredge and fill permits issued by the Corp of Engineers under Section 404 of the federal Clean Water Act are not required. Roads not requiring specific 404 permits include local and temporary roads built exclusively for timber management, which are covered by the exemption for normal silvicultural activities, all roads crossing headwater sections of streams (flow less than five cfs), which are covered by a nationwide permit; and minor crossings with less than 200 cubic yards of fill below ordinary high water, also covered by a nationwide permit. Road crossings of streams that do not fit any of the above three categories require a specific permit from the Corps of Engineers.

All road construction/reconstruction at perennial and intermittent stream crossings, and areas that could affect water quality, should use appropriate interim erosion control and final stabilization measures. This could include hydroseeding or conventional seeding and mulching, placing biodegradable erosion control matting on exposed soil, or other appropriate methods. The interim control measures should be done concurrently with the activity. The erosion control measures would be designed to reduce the impact of raindrops on exposed soil and surface runoff.

At perennial and intermittent stream crossings, a high quality surfacing material, binding material, or other suitable material should be used that will reduce sediment to streamcourses.

Discharges of fill material into stream channels to construct a road crossing shall be made in a manner that minimizes encroachment of trucks, tractors, bulldozers, or other heavy equipment into waters of the United States that lie outside the lateral boundaries of the fill itself.

Stream crossings will be designed and constructed to maintain the stream's original gradient.

Stream crossings of fish-bearing streams will be designed so as not to impede upstream fish movement. During project planning where existing crossings on perennial fish-bearing streams are impeding fish movement upstream and the crossings are planned to be replaced, evaluate their replacement with non-impeding crossing methods.

Ditch erosion and transport of sediment will be minimized by placing sufficient culverts to handle small volumes of water frequently. Cross-drainage will be provided before perennial and intermittent stream crossings to discharge road sediment onto the forest floor rather than into a streamcourse. Alternatively, sediment traps can be used.

Drainage of culverts onto fill slopes will be avoided where practical. If unavoidable, energy dissipators or water spreaders should be provided to prevent erosion of the fill slope.

Where culverts must drain onto steep slopes and the potential for gully formation exists, energy dissipators will be used.

Woody debris naturally occurring in streams is removed only when degrading fisheries habitat or when unacceptable damage to facilities such as bridges and culverts is occurring. The need for removal is determined on a case-by-case basis.

Coordination of Water Resources with Oil/Gas Management

Developers will provide an erosion and sediment control plan to the Forest Service prior to construction.

Surface disturbance will be limited to the minimum necessary for extraction of minerals, as stipulated by the Secretary's Rules and Regulations governing reserved minerals or by case law concerning outstanding mineral rights.

Although some new roads will require stream crossings, road and pipeline systems will be planned to avoid or eliminate the crossing of perennial streams whenever reasonably possible. Operators will design and construct stream crossings such that detrimental impacts to the stream are reduced or minimized.

Considerations for road location and design.

- The suggested distance between new roads and perennial and intermittent streams would be beyond the riparian area and where an effective filter strip is present to prevent sediment from entering a streamcourse. The type of road surfacing material to be used will depend on how effective the filtering capabilities of the filter strip are
- Provide adequate cross-drainage to handle small volumes of water frequently. Cross-drainage will be provided before perennial and intermittent stream crossings to discharge road sediment onto the forest floor rather than into the stream. Energy dissipators will be used where needed to prevent gully formation on discharge slopes. Alternatively, sediment traps that are regularly maintained may be used.
- Road grades preferably should be kept to two to eight percent, with grades up to 15 percent acceptable on short pitches of 200 feet or less
- All road construction/reconstruction at perennial and intermittent stream crossings, and areas that could affect water quality, should use appropriate interim erosion control and final stabilization measures. This could include hydroseeding or conventional seeding and mulching, placing biodegradable erosion control matting on exposed soil, or other appropriate methods. The interim control measures should be done concurrently with the activity. The erosion control measures would be designed to reduce the impact of raindrops on exposed soil and surface runoff
- Permanent roads should be surfaced with sufficient stone to carry anticipated traffic
- At perennial and intermittent stream crossings, a high quality surfacing material, binding material, or other suitable material should be used that will reduce sediment to streamcourses
- Stream crossings on fish-bearing streams will be designed so as not to impede upstream fish movement.
- During project planning where existing crossings on perennial fish-bearing streams are impeding fish movement upstream and the crossings are planned to be replaced, evaluate their replacement with non-impeding crossing methods
- Roads to access test wells should be constructed to minimum standards in order to facilitate site restoration in the event of a dry hole or a decision not to produce. In the event of a decision to produce, the road should be upgraded as necessary for its use.

- Woody debris naturally occurring in streams is removed only when degrading fisheries habitat or when unacceptable damage to facilities such as bridges and culverts is occurring. The need for removal is determined on a case-by-case basis.

Within the constraints imposed by the well spacing pattern, locate wells to minimize environmental damage. An adequate filter strip should be provided to minimize entry of sediment into streams.

Use of Forest Roads will require a Road-Use Permit. Road construction necessary to handle the OGM traffic is the developer's responsibility.

In oil/gas developments, pipelines should be buried a minimum of three feet to protect them from damage and freezing. Exceptions may be made if site conditions warrant, such as bedrock requiring blasting. Where Forest Service has approval or permitting authority pipelines will be buried, except where site conditions make it infeasible.

In oil/gas developments under 1911 Secretary's Rules and Regulations or in outstanding ownership, the developer will be encouraged to bury pipelines as described above.

It is the operator's responsibility to comply with all state and federal water pollution abatement laws and regulations.

Each operator must prepare and implement a site-specific Preparedness, Prevention, and Contingency Plan (PPC Plan), which includes a spill prevention, containment, and counter-measure plan, as required by state and federal regulations. This plan details practices for handling, usage, and storage of materials which can cause environmental degradation if spillage, leakage, or discharge occurs.

Wastewaters will be disposed of by methods approved by state and federal regulatory agencies. Disposal of polluting materials must also be in accordance with stipulations of the deed reserving the mineral rights.

Propagation Areas may be provided on selected impoundments in cooperation with the Pennsylvania Game Commission.

Seeding of annual grains adjacent to selected shorelines will be permitted.

Potholes should be constructed only where they complement existing developments, such as small impoundments.

New shallow impoundments and potholes should be developed only in areas where poorly or very poorly drained soils occur.

Consider utilization of road construction projects to develop shallow water areas.

Islands and peninsulas may be provided for nesting and loafing areas.

Cover should be provided within and adjacent to impoundments for escape and nesting purposes respectively.

Nesting Structures

Nesting boxes may be installed in wetland habitats.

Canada goose nesting structures may be provided in impoundments.

Beaver

Beaver will be encouraged on selected streams (non-trout) where stream gradient and food availability are suitable.

Specialized Habitat

Areas with rock ledges suitable for raven nesting sites should be identified and managed in a manner that will protect these areas.

Road and Trail Development

Road and trail development will be located to protect key wildlife habitat values (turkey brood habitat, deer and turkey wintering areas, wetlands, etc)

Fish Habitat Management - Streams

The Forest will maintain and restore fish population balance to the extent practical through habitat and access manipulation. Population manipulation as coordinated with the Pennsylvania Fish and Boat Commission will be used when necessary.

Where habitat is lacking in streams, and water quality (i.e. pH) is not considered limiting, habitat restoration/improvement projects could be considered for the creation of habitat diversity, such as pools and cover for fish growth and survival. Streams would be managed to provide for approximately 35-65% pool and glide habitat.

Where habitat restoration/improvement projects are planned, materials should be used that are naturally appearing as possible and blend in with the immediate surroundings.

Four streams identified for long-term monitoring will not be artificially improved. These streams have been identified to monitor long-term trends of the variation in habitat, water quality, and fish and aquatic insect communities without direct stream alteration (i.e. fish habitat improvement structures). The streams include

<u>Stream</u>	<u>Panger District</u>	<u>Tributary to:</u>
Blood Run	Marionville	Tionesta Creek
Buck Lick Run	Bradford	Chappel Fork
Head Run	Bradford	Tionesta Creek
Slide Run	Marionville	Big Mill Creek

Fine sediment should be at a level that does not cause detrimental effects to aquatic communities, individual species, or their habitats.

Permit and maintain protected stocking areas on all stocked trout streams within the Forest which comply with Pennsylvania Fish and Boat Commission's policy and directives.

Stream flows should not be impeded or accelerated nor fish passage restricted unless prescribed under a fish management plan.

Wilderness Trout Streams (State classification)

The following streams will be managed to conform to Wilderness Trout Streams according to Pennsylvania Fish and Boat Commission Policy No. 400-17-59. All management areas are considered compatible with the policy

- Arnot Run, Warren County
- Crane Run, McKean and Elk Counties
- East Hickory Creek above its confluence with Middle Hickory Creek, Warren County
- Four Mile Run, Forest County
- Wildcat Run, Warren County
- South Branch Kinzua Creek from its confluence with Hubert Run upstream to Forest Road 186, McKean County.

Remote Trout Streams (federal classification)

The following streams would be included in this designation:

- East Fork Run, Forest, Warren, and McKean Counties
- Morrison Run, McKean County
- Pell Run, Warren County
- Tracy Run, Warren and McKean Counties

Stream crossings on these four streams would normally not be acceptable for federally owned OGM or Forest activities, and roads or off-road vehicle trails would not parallel the streams within 1/4 mile

Fish Habitat Management - Impoundments

Improvements to fish habitat and water quality could occur in existing warm-water impoundments where data indicate that these factors are limiting fishery production

If warm-water impoundments are constructed:

- They will be 25-100 surface acres in size.
- They will be located where at least 65 percent of the impoundment will be at least five feet in depth.
- They will not be located in drainages whose pH is less than 6.0 unless the liming and fertilization of that lake is accepted as part of the project costs.
- Drainages with a total hardness of at least 25 p.p.m. as Calcium Carbonate will be selected first.
- The impoundment design will include a reasonably rapid draw-down capability.

- An environmental assessment will be made for each site proposed for a warm water impoundment to insure that the project will be cost-effective and comply with all the Forest standards and guidelines.
- Downstream temperatures will not be affected adversely.

Fish Habitat Management in the Allegheny Reservoir

The placement of fish habitat improvement structures could occur at any depth in the reservoir. The number and type of structures to be placed at any one location will be determined by site-specific analysis. The site-specific analysis will also address visual quality during winter draw-down periods, and also for safety concerns associated with recreational water activities.

Fish habitat improvement structures should be monitored for their effectiveness at a minimum once every two years using accepted monitoring methods. Not all structures would be monitored, but rather a representative sample of the different structure types.

Subimpoundments could be created within the Allegheny Reservoir.

Stream/Impoundment Lining

Streams and impoundments that are acidic or vulnerable to acidification could be considered for some type of improvement to water quality, such as lining to increase buffering capacity.

The main objective would be to maintain/restore native or wild fish populations in streams. Streams scheduled for stocking of hatchery fish could benefit from this as well.

The application of a buffering agent could occur in impoundments that have either self-sustaining fish populations, or are stocked for a put-and-take fishery.

Four streams identified for long-term monitoring will not be artificially improved. These streams have been identified to monitor long-term trends of the variation in habitat, water quality, and fish and aquatic insect communities without direct stream alterations (e.g. fish habitat improvement structures). The streams include:

<u>Stream</u>	<u>Tributary to:</u>
Blood Run	Tionesta Creek
Buck Lick Run	Chappel Fork
Head Run	Tionesta Creek
Slide Run	Big Mill Creek

Refer to 2500 Water and Soil Management and 2600 Wildlife and Fish Habitat Management for each Management Area for additional standards and guidelines to protect water quality, stream temperature, and fish habitat.

Endangered, Threatened, and Forest Species of Concern

The habitat requirements of all animal and plant species that are listed or proposed for listing as endangered, threatened, or of special concern in Pennsylvania were considered in developing the forest-wide standards and guidelines, as well as those for specific management areas. Most of the species of concern can be protected and their habitat requirements provided by these standards and guidelines. Some species, however, need additional considerations for various reasons to insure that viable populations will be provided on the forest. The following species were selected in cooperation with the Pennsylvania Game Commission; Pennsylvania Fish and Boat Commission, Pennsylvania Department of Environmental Resources, Bureau of Forestry; and Western Pennsylvania Conservancy, to receive special emphasis in the management program. A complete listing of animals and plants and their classifications by the responsible state agency is on file in the Forest Supervisor's office.

Endangered

Bald Eagle (*Haliaeetus leucocephalus*)
Indiana Bat (*Myotis sodalis*)*

Forest Species of Concern

Osprey (*Pandion haliaetus*)**
Henslow's Sparrow (*Ammodramus henslowii*)***
Cooper's Hawk (*Accipiter cooperii*)
Red-shouldered Hawk (*Buteo lineatus*)
Northern Goshawk (*Accipiter gentilis*)
Sharp-shinned Hawk (*Accipiter striatus*)
Grasshopper Sparrow (*Ammodramus savannarum*)
Marsh Wren (*Telmatodytes palustris*)
Eastern Bluebird (*Sialia sialis*)
Great Blue Heron (*Ardea herodias*)
Raven (*Corvus corax*)
Bobolink (*Dolichonyx oryzivorus*)
Bobcat (*Lynx rufus*)
Keen's Little Brown Bat (*Myotis keenii*)
Silver-haired Bat (*Lasionycteris noctivagans*)
Timber Rattlesnake (*Crotalus horridus*)
Small-headed Rush (*Juncus brachycephalus*)
Broad-leaved Water Plantain (*Alisma plantago-aquatica*)
Puttyroot (*Aplectrum hyemale*)

*Though this species has not been recorded as occurring within the Allegheny National Forest, its historic and suspected range includes this area. Old growth habitat in riparian areas preferred by this species for nursery colonies will be provided through implementation of the standards and guidelines as well as the management area assignments.

**This species is classified as Endangered by the state and is a migrant. It has attempted to nest here recently. A nesting project is underway on the Allegheny Reservoir in New York.

***This species is classified as Threatened by the state and occurs on private land within the proclamation boundary.

The small-whorled pogonia (*Isotria medeoloides*), that is classified as Endangered on the federal list, was not included on the Forest list because it has not been known to occur on this unit historically. Since a population of this species has been located recently in Venango County near Oil City, Pennsylvania, within the general region of the Forest, the guidelines for locating this species will be utilized to protect it.

Provide wetland habitats to meet the needs of selected species.

Provide four to six live den trees per acre with a minimum DBH of 14 inches in the oak type.

Roads and trails should be located to avoid turkey brood habitat and wintering areas for both turkey and deer.

Road construction should be scheduled to avoid a conflict during the turkey nesting season, April 15 to June 15, to the extent practicable.

Local roads will be closed for the following reasons:

- Those impacting turkey brood habitat areas will be closed during the period of May 1 to September 1, except for two years following sales they may be left open for firewood collection.
- During the fall turkey and bear hunting seasons if necessary to meet the management objectives for these species.
- During the deer season to direct hunting pressure into other areas where overbrowsing by deer is occurring.

Resource management activities that would disturb turkeys during the nesting season (April 15 - June 15) should be scheduled to avoid a conflict to the extent practicable.

Fish

Fish passage in streams should not be blocked or prevented, unless done in conjunction with prescribed fish management.

To meet the Pennsylvania Fish and Boat Commission guideline for Wilderness Trout Streams management, local roads will be closed; i.e., stream must not be accessible to motorized vehicles at more than one point every two miles. Refer to the 2600 section of the Forest-wide Standards and Guidelines for a listing of these streams.

To meet the guidelines for the Remote Trout Stream program, refer to the 2600 section of the Forest-wide Standards and Guidelines for a listing of these streams and the guidelines.

2700 SPECIAL USES MANAGEMENT

*Utility Transmission Corridors

*Provide for utility transmission corridors. Emphasize use of corridors when granting appropriate rights-of-way.

*Utility Distribution Systems

*Approval of application for distribution systems crossing National Forest System lands (such as utility rights-of-way serving individual residences) will be determined individually, consistent with the standards and guidelines.

4000 RESEARCH

The Muzette Tract is a candidate Research Natural Area (RNA) located in Management Area 3. This area is only under study and must receive a thorough evaluation before being officially designated "RNA" by the Chief of the Forest Service. No actions will be taken that may effect its suitability or capability to be so designated. For additional information, consult the Final EIS, Chapter 3, Section B - "Special Areas".

The primary purpose of an RNA is to preserve unique ecosystems for scientific purposes. The Northeast Forest Experiment Station will be responsible for the management of all designated RNA's.

5100 FIRE MANAGEMENT

*Prescribed fire may be used to establish or maintain vegetation under established resource management prescriptions.

*Activity fuels will be managed at a level commensurate with the allowable fire intensity and rate of spread that meets resource objectives in established prescriptions. Treatment along highways and adjacent properties will meet applicable state laws.

5400 LAND OWNERSHIP

*Surface Ownership

*Avoid encumbering land available for exchange with uses that compromise exchange opportunities.

7300 BUILDINGS AND
STRUCTURES

*Buildings and structures may be provided to support resource management objectives.

Recreational opportunities will include dispersed activities such as cross-country skiing, backpacking, hiking, fishing, hunting, and ORV trail riding.

A variety of game and non-game wildlife species may be seen that are characteristic of mature forested habitat including squirrel in the oak type and non-game birds in all types.

Specialized habitats and inclusions within the management area will receive treatments to specifically benefit small game, non-game, indicator species, or species of special concern.

Activities, such as right-of-way maintenance, oil/gas well hydrofracturing, drilling and maintenance, will occur but will be a minor part of the total activity in the area.

TABLE 4-17 Output Objectives for Management Area 6.1

Output by Management Problem	Unit of Measure	Average Annual Amount		
		Planned Decade 1	Projected Decade 2	
		D	(D2)	
Developed Recreation Opportunities				
Semi-Primitive Motorized	SPM	M RVD	4 (4)	5 (5)
Roaded Natural	RN	M RVD	402 (402)	432 (432)
Dispersed Recreation Opportunities				
Semi-Primitive Motorized	SPM	M RVD	292 (282)	292 (282)
Timber				
Hardwood Sawtimber		MMSF	3.6 (3.6)	3.6 (3.6)
Hardwood Pulpwood		MMSF	2.3 (2.3)	2.3 (2.3)
Wildlife				
Big-Game Hunting		M WFUD	19 (17)	23 (22)
Small-Game Hunting		M WFUD	15 (15)	17 (17)
Non-Game		M WFUD	14 (13)	14 (13)
Fishing		M WFUD	66 (66)	75 (73)

Management Area 6.1

TABLE 4-18. Practices for Management Area 6.1

Management Practice	Unit of Measure	Average Annual Amount			
		Planned		Projected	
		Decade 1	Decade 2	Decade 1	Decade 2
		D	(D2)	D	(D2)
Developed Recreation Area Construction					
Other Forest Areas					
Campground	# of areas ¹	0	(0)	1	(1)
Boat Launch	# of areas	2	(2)	0	(0)
Dispersed Recreation Trail Construction					
Pedestrian	miles	1.8	(1.7)	2	(2)
Motorized-Summer	miles	2.2	(2.2)	2.2	(2.2)
Wildlife and Fish Habitat Improvement					
Wildlife Habitat Improvement	acres	589	(581)	772	(755)
Wildlife Structures	# of struct.	3	(3)	3	(3)
Fish Structures in Lakes	# of struct.	80	(80)	TBD ²	
Timber Practices for Wildlife					
Final Harvest	acres	300	(300)	300	(300)
Thinning or Selection Cut	acres	700	(700)	700	(700)
Herbicide	acres	170	(170)	170	(170)
Fertilization	acres	180	(180)	180	(180)
Fencing	acres	36	(36)	36	(36)
Planting	acres	15	(15)	15	(15)
Site Prep for Natural Regeneration	acres	300	(300)	300	(300)
Road Construction	miles	1.5	(1.5)	1.5	(1.5)
Road Reconstruction	miles	.6	(.6)	.6	(.6)

1 Unit of measure for developed recreation area construction is not the annual average but the number of areas to be completed within the decade.

2 TBD- To be determined based on an Allegheny Reservoir Fish Habitat Management Plan.

Manage habitat adjacent to selected warm-water (nontrout) streams and lakes to maintain viable populations of beaver, other furbearers, and associated aquatic species.

Provide cover/forage edge adjacent to rights-of-way.

Provide for the retention of dead and down logs and other ground material necessary to maintain viable populations of indigenous species, such as reptiles and amphibians.

Regeneration cuttings will be small and well distributed. Poletimber and sawtimber will comprise a minimum of 70 percent of the forested acreage per 5,000 acres of habitat.

Provide special habitat requirements necessary to maintain viable populations of those species requiring isolation.

Provide wetland habitat to meet the needs of selected species.

Provide three to five live trees per acre containing nesting cavities and having a minimum DBH of 14 inches for cavity-nesting birds and mammals.

Within regeneration units, mark for retention the snags and cavity nesting trees (leave or reserve trees) which would meet utilization standards under the timber sale contract.

Road construction, reconstruction, and other resource management activities that would disturb turkeys during the nesting season, April 15 to June 15, should be scheduled to avoid a conflict to the extent practicable.

Roads should be located to avoid turkey brood habitat, as well as turkey and deer wintering areas.

Local roads may be open to hunters during the antlerless deer season, flintlock muzzleloader, and late archery seasons if overbrowsing is occurring and the road conditions are suitable.

Roads and trails should be located in a manner to avoid turkey brood habitat and both turkey and deer wintering areas.

Fish

*Fish passage in streams should not be blocked or prevented, unless done in conjunction with prescribed fish management.

To meet the Pennsylvania Fish and Boat Commission guideline for Wilderness Trout Streams management, local roads will be closed (i.e., stream must not be accessible to motorized vehicles at more than one point every two miles), refer to the 2600 section of the Forest-wide Standards and Guidelines for a listing of these streams.

- To meet the guidelines for the Remote Trout Stream program, refer to the 2600 section of the Forest-wide Standards and Guidelines for a listing of these streams and the guidelines.

2700 SPECIAL USES

*Utility Transmission Corridors

*NOTE: See also 7700 Transportation System, Corridors.

*Permit those facilities that are required to serve recreational or administrative facilities. Exceptions will be considered on an individual basis.

*Utility Distribution System

*Approval of application for distribution systems crossing National Forest System lands (such as utility rights-of-way serving individual residences) will be determined individually, consistent with the standards and guidelines.

2800 MINERALS AND GEOLOGY

Private Minerals

Special emphasis will be given to identifying and implementing measures to reduce adverse impacts on the resource objectives of this Management Area. Mitigation measures may include gating roads, vegetative screening of facilities, and wildlife habitat improvement projects. Implementation of these measures will be negotiated with the oil/gas developers.

5100 FIRE MANAGEMENT

*Prescribed fire may be used to establish or maintain vegetation for wildlife.

*Activity fuels will be managed at a level commensurate with the allowable fire intensity and rate of spread that meets resource objectives in established prescriptions. Treatment along highways and adjacent properties will meet applicable state laws.

Roads and trails should be located to avoid turkey brood habitat areas, as well as turkey and deer wintering areas.

Local roads will be closed for the bear and fall turkey hunting seasons when necessary to meet the management objectives for these species.

Retain fruit and mast-producing tree and shrub species and improve their productivity by utilizing management techniques such as release, pruning, and fertilizing. In selected areas, perform replacement planting of such species to restore productivity of the site. Protective fencing may be required to protect seedlings from deer.

Provide three to five live trees per acre having a minimum DBH of 14 inches and containing nesting cavities for cavity-nesting birds and mammals.

Within regeneration units, mark for retention the snags and cavity-nesting trees (leave or reserve) which would meet utilization standards under the timber sale contract.

Road construction and resource management activities that would disturb turkeys during the nesting season (April 15 to June 15) should be scheduled to avoid conflicts to the extent possible.

Fish

*Fish passage in streams should not be blocked or prevented, unless done in conjunction with prescribed fish management.

To meet the guidelines for the Remote Trout Stream program, refer to the 2600 section of Forest-wide Standards and Guidelines for a listing of these streams and the guidelines.

2700 SPECIAL USES MANAGEMENT

Utility Transmission Corridors

*Permit those facilities that are required to serve recreational or administrative facilities. Exceptions will be considered on an individual basis.

Utility Distribution Systems

*Approval of application for distribution systems crossing National Forest System lands, such as utility rights-of-way serving individual residences, will be determined individually, consistent with the standards and guidelines.

2800 MINERALS AND
GEOLOGY

Private Minerals

Special emphasis will be given to identifying and implementing measures to reduce adverse impacts on the resource objectives of this management area. Mitigation measures may include vegetative screening of facilities, gating and closing of roads during the non-motorized period, and removal of unused equipment. Implementation of these measures will be negotiated with the oil/gas developers.

5100 FIRE MANAGEMENT

*Prescribed fire may be used to establish or maintain vegetation for wildlife.

*Activity fuels will be managed at a level commensurate with the allowable fire intensity and rate of spread that meets resource objectives in established prescriptions. Treatment along highways and adjacent properties will meet applicable state laws.

5400 LAND OWNERSHIP

*Surface Ownership

*Avoid encumbering land available for exchange with land uses that compromise land exchange opportunities.

7300 BUILDINGS AND
STRUCTURES

*Buildings and structures may be provided to support resource management objectives.

7400 PUBLIC HEALTH
AND POLLUTION CON-
TROL FACILITIES

Water Supply

*Drinking water may be provided. If provided, it must meet Federal and State regulations and be protected to ensure its continued quality.

Water systems may include springs and hand pumps.

*Solid Waste

*Emphasize and promote use of the carry-in/carry-out method of disposal. Landfill disposal sites will not be provided unless other more compatible alternatives are exhausted including private land.

Effluents

Sewage systems may include vault toilets.

Specialized habitats and inclusions within the management area will receive treatments to specifically benefit small-game, non-game, indicator species, or species of special concern.

Maintain or enhance existing permanent openings and grasslands in upland forest areas to meet wildlife needs.

Openings may be planted with fruit producing trees and shrubs, although most will be managed in native grasses, forbs, and shrubs.

Protect and enhance spring seeps and other water areas including the adjacent vegetation that are critical to wildlife.

To meet the guidelines of the Remote Trout Stream program, refer to the 2600 section of Forest-wide Standards and Guidelines for a listing of these streams and the guidelines.

2700 SPECIAL USES
MANAGEMENT

*Utility Transmission Corridors

*Permit only those facilities that are required to serve recreational or administrative needs. Exceptions will be considered on an individual basis.

*Utility Distribution Systems

*Approval of application for distribution systems crossing National Forest System lands (such as utility rights-of-way serving individual residences) will be determined individually, consistent with the standards and guidelines.

2800 MINERALS AND
GEOLOGY

Federal Minerals

Federally owned oil, gas, and other minerals within the NRA have been congressionally withdrawn from leasing consideration. Rock sources within the NRA will not be used or developed.

Private Minerals

The goal of Forest Service administration of private mineral development is to reduce the impacts of development on visual quality, recreation opportunities, watershed values, and wildlife habitat, while honoring private rights.

At least 60 days in advance of proposed development, the developer will provide the Forest Service with a Plan of Operations. The Plan of Operations must be approved by the Forest Service before any surface disturbing activities begin. In addition to those items specified in the forest-wide standards and guidelines, the Plan will address the following:

Schedule of Activities and Staging of Operations

The staging of well construction will be provided in the Plan of Operations. At any one time, no more than five well sites and accompanying access roads will be cleared in advance of actual drilling operations. Each five-well package will be handled as a single timber sale payment unit.

In the vicinity of developed recreation sites or areas receiving heavy recreation use, the Forest Service may impose restriction on the hours, days, or season of operation in order to reduce impacts on recreationists.

Water for hydrofracturing will be stored in tanks.

Production and Collection Facilities

Visual impacts of facilities will be reduced to the extent possible by siting, vegetative screening, or other methods. All above-ground facilities will be painted with earth-tone colors. Construction materials will meet visual quality requirements.

Tank batteries will be located outside the NRA where possible. Tanks and separators will be located on one site in the development. Tank hatches will be locked.

Where possible, all utility and collection lines will be buried at a minimum depth of three feet and marked with Terra tape or its equivalent. Surface lines may be permitted if boulders, topography, or other conditions make burial impractical or infeasible. Lines will be located in road rights-of-way. Lines may be located outside of rights-of-way if new corridor clearing is required for their installation.

TIONESTA RESEARCH NATURAL AREA (TRNA) AND KANE EXPERIMENTAL FOREST (KEF)

1600 INFORMATION SERVICES

No effort to disseminate information. Specific inquiries will be responded to.

1900 LAND AND RESOURCE MANAGEMENT PLANNING

Vegetative Management

Preserve the natural condition present in the Tionesta Research Natural Area.

Within the KEF, vegetative management standards will be specified within each approved research project. Research projects will generally relate to forest management problems and opportunities in the northeast.

2300 RECREATION MANAGEMENT

In both the Tionesta Research Natural Area and KEF, no new recreation investments will be made. In the KEF, the existing hiking trail will be maintained.

The ROS class provided will be semi-primitive motorized. Dispersed use will be allowed in the Tionesta Research Natural Area but to protect the natural conditions, no camping or fires will be permitted.

2400 TIMBER MANAGEMENT

In KEF, silvicultural systems and associated activities will be specified in each research project.

In TRNA, timber harvesting will not occur unless associated with development of private mineral ownership.

2500 WATER AND SOIL RESOURCE MANAGEMENT

Riparian Area Management

Riparian areas will be managed to protect the natural condition of riparian ecosystems. Creation or enhancement of riparian-dependent resources, such as wildlife and fish habitat or recreation opportunities, is generally not appropriate.

2600 WILDLIFE
MANAGEMENT

In the KEF, no wildlife habitat improvements will be provided except to protect or enhance threatened and endangered species habitat.

In the TRNA, there will be no wildlife habitat improvements.

To meet the guidelines for the Remote Trout Stream program, refer to the 2600 section of Forest-wide Standards and Guidelines for a listing of these streams and the guidelines.

2800 MINERALS AND
GEOLOGY

Federal Minerals

Surface disturbing mineral development is generally not compatible with the resource objectives of this management area. This compatibility determination, however, will be based on a site specific analysis of each tract.

Private Minerals

Special emphasis will be given to identifying and implementing measures to reduce adverse impacts on the resource objectives of this Management Area. Implementation of these measures will be negotiated with the oil/gas developers. Mitigation measures may include:

- Location of support facilities, such as tank batteries, separators, pipeyards, etc., outside the management area
- Use of techniques and equipment that can be put underground, such as downhole pumps, buried utility lines, and pipelines
- Vegetative screening of well locations and roads and noise control measures.
- Removal of brine water from the management area.

4000 RESEARCH

The Northeastern Forest Experiment Station will be responsible for scientific use of the Tionesta Research Natural Area and Kane Experimental Forest.

5100 FIRE MANAGEMENT

Fire suppression will recognize the natural conditions and active research projects in the area and avoid use of heavy mechanical equipment unless the size, intensity, and/or escape of fire is critical to values of MA 8 or adjacent management areas.

APPENDIX B

MONITORING PLAN

Source & Purpose of Monitoring Action	Activity Effect Practice Output	Unit of Measure	Frequency of Measure	Techniques and/or Data Sources	Expected Precision	Expected Reliability
<u>36 CFR 219.12(k)(1)</u> A quantitative estimate of performance. Compare accomplishments with forest Plan Objectives	Outputs by Management Area and Forest Totals	RVD, WEUD, RHP	Annual	HAR	High	High
<u>36 CFR 219.12(k)(3)</u> Verify unit costs used in Plan. Build data for Plan revision	Management Practices	\$/Unit	Annual	PAMAR & special cost studies as needed	High	High
	Management Practices in relation to significant factors that affect cost	1 to 5/Mile of road construction by land type association	Annual	PAMAR and/or special cost studies as needed	High	High
<u>36 CFR 219.12(k)(2)</u> Determine if the prescriptions are being implemented within the management areas assigned and as specified in the forest Plan management direction	Management Practices and Standards and Guidelines	Compliance check by prescription, by management area and by project-Narrative Report Summary	Annual on a sample basis	Management reviews, Project EA reviews, Sample field surveys RIM, THIS, HAR, WHIS	Moderate	Moderate
Verify predicted effects of management practices on environmental elements	Implementation and effectiveness of BMP's in controlling NPS pollution	Visual Narrative on Effectiveness	Annually or as necessary on selected OCH, Rec, and Timber projects in decade one.	Impact Monitoring, Field surveys, Sequential Photo Points, Spray cards in buffer strips	Moderate	Moderate

MONITORING PLAN (cont.)

Source & Purpose of Monitoring Action	Activity Effect Practice Output	Unit of Measure	Frequency of Measure	Techniques and/or Data Source	Expected Precision	Expected Reliability
	Recreation Opportunities and Visual Quality	Accus by ROs class and VQO	5 Years	Review Recreation Opportunity Spectrum Map and Visual Quality Objective map	Moderate	Moderate
<u>26 CFR 219.2(f)</u> To identify emerging issues, concerns, and opportunity from adjacent land owners or other public agencies	Land owner reaction; Other agency	Number of comments; Narrative	Annual	Letters, meeting, personal contacts, public involvement responses	Moderate	Moderate
<u>26 CFR 219.12</u> Monitor population trends of indicator species to maintain viable populations of all wildlife species.	White-called Deer American Woodcock Ruffed Grouse Beaver	Population Trend	Annual	Field surveys, PGC, Harvest Data	Moderate	Moderate
	Red-shouldered Hawk, Great Blue Heron	Population	Annual	Field surveys	High	Moderate
	Rattlesnake Yellow-bellied Sapsucker* Pileated Woodpecker* Magnolia Warbler* Black-Throated Green Warbler*, Barred Owl Hermit Thrush	Population Trend	Annual for three years andy every two years thereafter	Field surveys	Moderate	Moderate

MONITORING PLAN (con't)

Source & Purpose of Monitoring Action	Activity Effect Practice Output	Unit of Measure	Frequency of Measure	Techniques and/or Data Sources	Expected Precision	Expected Reliability
Monitor aquatic biodiversity	<u>Ecological</u> Brook Trout Smallmouth Bass	Population Trend	Annual	Stream and Lake surveys	Moderate	Moderate
	<u>Demand Species</u> Walleye	Population Trend	Annual	Lake Survey	Moderate	Moderate
	Fish Community	Species Composition	Annual	Stream and Lake surveys	Moderate	Moderate
	*These species will be surveyed on same transect					

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MONITORING PLAN (con t)

Source & Purpose of Monitoring Action	Activity Effect Practice Output	Unit of Measure	Frequency of Measure	Techniques and/or Data Sources	Expected Precision	Expected Reliability
Determine trends in fish habitat capability and appropriate stocking densities	Allegheny River, Reservoir, stocked and Native Trout Streams	by Habitat Quality and Species Composition	Annual on sample basis	Stream and lake	Moderate	Low
Determine health of streams by monitoring trends in aquatic insect community structure	Streams	Community Structure and Species Composition	Annual on sample basis	Streams	Moderate	Moderate
Determine wildlife and fish utilization compared to planned use estimates	Fishing and Hunting	Success	Reservoir - 1/decade; Game take - 1/decade	Creel census, game take surveys	Moderate	Moderate

APPENDIX C

FOREST-WIDE SUMMARIES

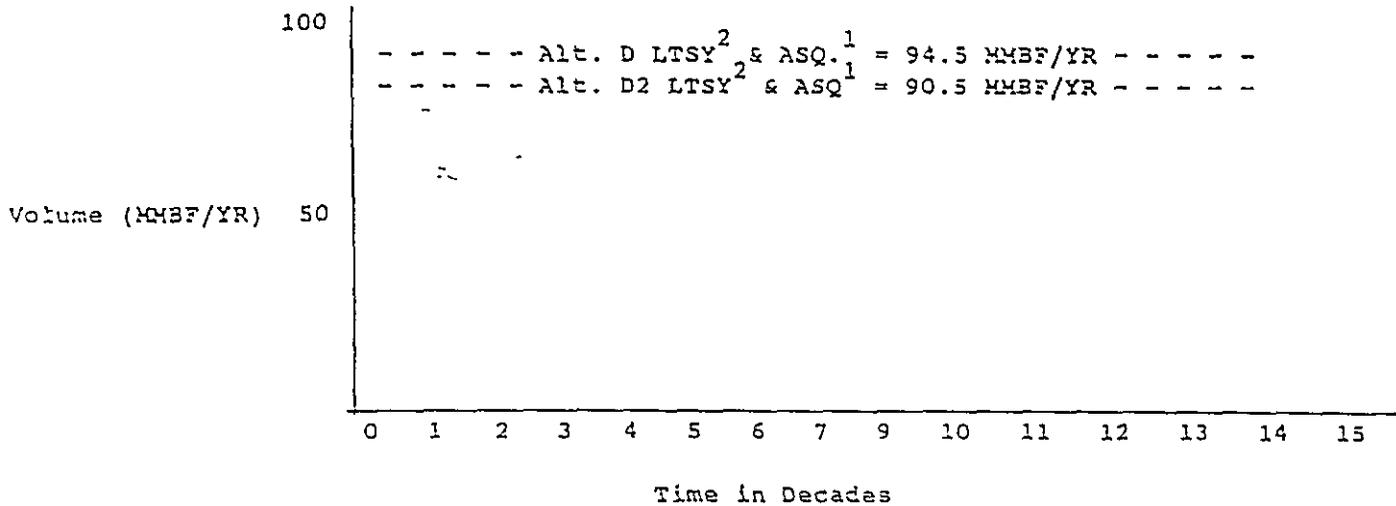
Table C-1 Forest-wide Summary of Management Practices and Total Cost

Management Practice	Unit of Measure	Average Annual Amount			
		Planned		Projected	
		Decade 1	Decade 2	Decade 1	Decade 2
		D	(D2) ²	D	(D2)
Dev. Recreation Area Const. & Expansion ¹					
Allegheny Reservoir Area .					
Campgrounds	# of Areas	1 (1)		1 (1)	
Hotel/Restaurant Complex	# of Areas	1 (1)		0 (0)	
Other Forest Areas					
Campgrounds	# of Areas	1 (1)		3 (3)	
Boat Launches	# of areas	2 (2)		0 (0)	
Dispersed Recreation					
Pedestrian Trail	miles	4.8 (4.1)		4.1 (3.4)	
Motorized Winter	miles	1.1 (1.1)		1.1 (1.1)	
Motorized Summer	miles	14.5 (14.5)		14.5 (14.5)	
Wilderness Management	acres	9719 (9719)		9719 (9719)	
Timber Practices					
Final Harvest - Clearcuts	acres	330 (330)		340 (270)	
Final Harvest - Shelterwood	acres	2970 (2970)		3060 (2430)	
Thinning	acres	9400 (9500)		7800 (10400)	
Timber Stand Improvement	acres	800 (700)		600 (800)	
Selection	acres	600 (500)		0 (0)	
Herbicide	acres	2000 (2000)		1800 (1500)	
Fertilization	acres	2500 (2500)		1400 (1300)	
Fencing	acres	400 (400)		400 (400)	
Planting	acres	200 (200)		200 (200)	
Site Prep for Natural Regeneration	acres	1800 (1800)		1800 (1400)	
Road Construction	miles	23.7 (24.7)		13.4 (18.7)	
Road Reconstruction	miles	9 (10.1)		5.5 (7.6)	
Wildlife and Fish Habitat Improvement					
Wildlife Habitat Imp. & Mtnce.	acres	2771 (2361)		2758 (2589)	
Wildlife Structures	# of struct.	5 (6)		11 (3 8)	
Fish Structures - Lakes	# of struct	50 (80)		TBD ³	
Warm Water Lake Construction	# of lakes	1/dc (1/dc)		1/dc (1/dc)	
Energy Mineral Development	acres	429 (4290)		429 (4290)	
Common Variety Mineral Development	acres	8 (12)		6 (13)	
TOTAL COST	M\$	6,475		5,693	

- 1 Unit of measure for this practice is the number of recreation areas to be completed within the entire decade not an average annual amount
- 2 D2 is a variation of the Forest Plan that projects results if a high rate of oil and gas development is experienced during implementation.
- 3 TBD - To be determined based on fish habitat management plans.

Table C-2 Allowable Sale Quantity and Long-Term Sustained Yield Capacity

(Average annual yield per decade within the planning horizon equals long-term sustained yield; 945 million board feet of sawtimber and pulpwood per decade for Alternative D and 905 million for Alternative D2.)



1 Allowable Sale Quantity (ASQ)

The quantity of timber that may be sold from an area of land covered by the Forest Plan for a time period specified by the plan. This quantity is usually expressed on an annual basis as the average annual allowable sale quantity.

2 Long-Term Sustained Yield Capacity (LTSY)

The highest uniform wood yield from lands being managed for timber production that may be sustained under a specific intensity of management consistent with the multiple-use objective.

ALLEGHENY NATIONAL FOREST LAND AND RESOURCE MANAGEMENT PLAN

September 30, 1997

Amendment No. 7

Posting Notice: Amendments to this Forest Plan are numbered consecutively. Check the last transmittal received for this Plan to see that the above amendment is received and posted. Do not post this amendment until any missing ones are received and posted.

Amendment No. 7 makes the following changes to the page(s) specified:

<u>Page Code</u>	<u>Page Color</u>	<u>Superseded</u> (Number of Pages)	<u>New</u>
p 4-99	Tan	1	2
pp 4-101 & 4-102	Tan	2	2
pp 4-108 & 4-109	Tan	2	2
pp 4-113 & 4-114	Tan	2	4
pp 4-116 - 4-118	Tan	3	5
pp 4-153 - 4-156	Tan	4	7
pp 4-163 - 4-165	Tan	3	6
p 4-179	Tan	1	4

Digest

- p 4-99(a) & 4-99(b) Adds a subsection for Human and Community Development under 1500 EXTERNAL RELATIONS and additional guidance under 1600 INFORMATION SERVICES
- p 4-101 Inserts paragraph two regarding a "Leave No Trace" policy
- p 4-102 Adds three paragraphs to the Visual Quality heading
- p 4-108 & 4-109 Adds four items to the listing under the Signs heading
- pp 4-113(a)-(c) Adds sections 1500 EXTERNAL RELATIONS and 1600 INFORMATION SERVICES
- p 4-114 Adds listing under the Recreation Sites heading
- pp 4-116 & 4-117(a) & (c) Adds last three paragraphs under the Visual Quality subsection, paragraph three under the Silvicultural Systems heading, and the last paragraph under the Temporary Openings Created heading
- pp 4-118(a) & (b) Adds section 2500 WATER AND SOIL MANAGEMENT

Page 2

- cc 4-153(a) & (b) Adds sections 1500 EXTERNAL RELATIONS and 1600 INFORMATION SERVICES
- c 4-153(c) Inserts paragraph four regarding a "Leave No Trace" policy.
- c 4-154 Adds last paragraph
- p 4-155 Adds first two paragraphs (Visual Quality), last paragraph under Silvicultural Systems heading, and last paragraph under Temporary Openings Created heading
- cc 4-156(a) & (b) Adds paragraphs four through end of Riparian Area Management heading
- cc 4-163(a) & (b) Adds sections 1500 EXTERNAL RELATIONS and 1600 INFORMATION SERVICES
- c 4-163(c) Inserts paragraph eight under the Recreation Site heading regarding a "Leave No Trace" policy
- c 4-164 Adds last three paragraphs under Visual Quality heading.
- cc 4-165(a) & (b) Adds Riparian Area Management subsection
- cc 4-179(a) - (d) Adds Standards and Guidelines for the Buckaloons Historic District

JOHN E PALMER
Forest Supervisor

STANDARDS AND GUIDELINES FOR MANAGEMENT AREA 5

(An asterisk designates standards taken from the Eastern Regional Guide.)

1500 EXTERNAL
RELATIONS

Search & Rescue

Motorized and mechanical equipment may be used only in life threatening situations for search and rescue with Forest Supervisor approval. Operations will be coordinated with local county sheriff. The Forest Service will maintain control of search and rescue operations in Wilderness areas

- Horses or helicopters will be favored over wheeled vehicles.
- If vehicles are required, either snowmobile or low pressure balloon tires will be favored

Human & Community Development

Volunteers and personnel from other programs hosted by the Forest Service could be used to accomplish needed work within the river corridor. Encourage participation in the Pennsylvania Fish and Boat Commission's "Adopt-a-Stream" program and the DER Water Monitoring Program.

Provide technical assistance as requested to landowners desiring to implement corridor guides

1600 INFORMATION
SERVICES

Information will generally be provided through use of the Recreation Opportunity Guide, maps, brochures, etc.

Interpretive information, if provided, will be outside of Wilderness boundaries

Publications should emphasize

- Outdoor ethics and no-trace camping,
- Weekday and winter use to those seeking more solitude, and
- Orienteering as a way to minimize use impacts, reduce people encounters, and increase solitude experience.

The information services provided for the Allegheny Wild and Scenic River are intended to satisfy the three information needs of users of the Allegheny River corridor. These needs are directional, behavioral, and interpretive. The services will inform river users of recreational opportunities and laws and regulations pertaining to specific activities. Information will be

provided through a variety of media, including but not limited to signs, brochures, personal contacts, and news media.

- An information system using a variety of media should be developed for river users that would identify public lands, recreation opportunities, public facilities, landmarks on the river, trail opportunities, regulations, safety messages, and special features/points of interest
- All information media should emphasize "Leave No Trace", respect for private property rights, and water safety throughout the corridor.
- Information and Interpretive media will be coordinated with the local agencies, Chambers of Commerce, Tourist Promotion Agencies, Oil Region Heritage Park, State agencies etc. to assure accuracy and eliminate redundancy.
- Design an Allegheny River brochure that lists the three classifications of Wild and Scenic Rivers, and explains that the Allegheny has a "recreational" classification, identifies the values that made the river worthy of being a National Wild and Scenic River, tells why it needs to be protected and what the user can do to protect it, and includes information on sensitive, threatened and endangered species.
- The Forest Service will cooperate with the Oil Region Heritage Park and others to develop an interpretation plan for the river that will be consistent throughout its length. Interpretive information may include such themes as the riverine ecosystem, the outstanding remarkable values, cultural history, or the Allegheny Islands Wilderness

1900 LAND AND
RESOURCE MANAGE-
MENT PLANNING

Vegetative Management

*Manage vegetation only to protect Wilderness values or to protect adjacent property from fire or pests

Natural succession will be allowed to proceed as the dominant process

Use native plants for temporary soil stabilization
Annuals will be used so as to favor natural succession.

Camping and day use will be permitted on the Allegheny River Islands, and non-motorized watercraft may be landed on the shoreline.

Emphasize a "Leave No Trace" policy where users are required to haul away their own trash and leave no trace of their visit

Trails

*Trail management will be compatible with the ROS objective of the area

Trail types appropriate to this management area are:

Pedestrian Summer
Pedestrian Winter

Trails may include two difficulty classes of More and Most Difficult experiences within the semi-primitive non-motorized ROS class

Off-Road Vehicles (ORV)

ORV use will not be permitted.

Cultural Resources

*Cultural resources will be evaluated for the National Register of Historic Places

*Assess the nature and degree of damage to cultural resources caused by vandalism, visitor use, and natural deterioration and identify protective measures to be implemented.

*Cultural resource values within a Wilderness may be stabilized and preserved when these values are compatible with and enhance Wilderness values

*On-site cultural resource interpretation will not occur.

No scientific excavations will occur unless justified by providing scientific information not likely to be found elsewhere. Any digs will be promptly restored to natural condition.

*Visual Quality

*Management activities should meet the visual quality objective of preservation or retention for all sensitivity levels, distance zones, and variety classes.

Vegetation will be allowed to evolve naturally within the forested riparian buffer, unless restoration work is necessary. Restoration work will use native plants. Maintain or enhance the streambank vegetation that provides screening of man-made facilities and activities.

Maintain or enhance the integrity of the Landscape Types 1 - 3 by allowing changes consistent with the future condition descriptions (pp 42-45, Allegheny W&S River FEIS)

Landscapes within the corridor will be managed under the visual quality objective of Retention which recommends that management activities not be visually evident to the average visitor. Any management activity or development should be designed to blend with the form, line, color and texture of the natural surroundings.

2300 TIMBER MANAGEMENT

*Timber is not harvested under this management goal.

Salvage of timber damaged as a result of fire, storm, or pests will not occur, except to protect Wilderness values or to protect adjacent property from fire or pests.

Firewood

Firewood may be gathered in Wilderness, but only for use within the Wilderness boundary. If significant resource damage is expected, gathering may be restricted by Forest Supervisor order.

2600 WATER AND SOIL RESOURCE MANAGEMENT

*Control measures to mitigate erosion will commensurate with the soil characteristics, expected use, and management objectives of the area.

*Limit watershed improvement projects to correcting problems caused by people and natural disasters that threaten downstream health and safety. Abandoned oil and gas wells on federal mineral ownership will be plugged if the wells pose a safety hazard or are polluting surface or ground water.

Current water quality will be maintained in the Hickory Creek Watershed to protect instream values. Variation in water quality may occur in response to natural elements.

Riparian Area Management

Public use of specific areas may be limited to protect water quality.

Trails will be located to protect soil and water quality values.

7100 ENGINEERING
OPERATIONS

Surveying

Wilderness boundaries will be marked to a standard that will allow for identification

- Wilderness boundaries will be surveyed only where and when there is a threat of encroachment by other activities
- Wilderness boundaries will be posted at 100 foot intervals adjacent to private lands and at 300 foot intervals along roads

Signs

Trail signs may be provided within Wilderness boundaries.

- All signs will conform to Wilderness standards of rustic routed wood
- Signing within areas will be kept to a minimum and primarily used for direction and safety.
- Each of the Wilderness islands will be identified as belonging to the system
- Painted trail blazes are generally inappropriate within Wilderness areas. Trails will be marked with axe blazes or rock cairns.
- Develop sign plan for the river corridor including inventory of existing signs, analysis of needs and standards of future signing
- Through signing, brochures and maps, provide distances between various river features and access sites
- for convenience and safety of river users.
- All informational signing within the river corridor on National Forest will be uniform in color and design as provided in the Forest Service Sign Handbook and River Sign Plan (To be developed). Signing along roads, trails and within recreation sites should be simple, easily read and organized

Solid Waste

Sewage systems will not be developed

7000 BUILDINGS AND
STRUCTURES

*No building or structures will be constructed, except as authorized by the act establishing the Wilderness

7400 PUBLIC HEALTH
AND POLLUTION
CONTROL ACTIVITIES

*Water Supply

*Drinking water sources will not be developed

*Emphasize and promote use of the carry-in/carry-out method of disposal.

*Solid Waste

*Landfill disposal sites will not be provided

Biodegradable waste from dispersed recreation use may be burned or buried by users. Plastic, metal, and other waste must be carried out. Additional waste disposal regulations may be ordered by the Forest Supervisor to protect the Wilderness experience and environment.

7500 WATER STORAGE
AND TRANSMISSION

Dams

No dam construction will occur.

7700 TRANSPORTATION
SYSTEM

Roads

All roads will be eliminated from designated Wilderness areas, excepting those necessary for oil and gas recovery on outstanding rights or on private property.

STANDARDS AND GUIDELINES FOR MANAGEMENT AREA 6.1

1500 EXTERNAL
RELATIONS

Human and Community Development

Volunteers and personnel from other programs hosted by the Forest Service could be used to accomplish needed work within the river corridor. Encourage participation in the Pennsylvania Fish and Boat Commission's "Adopt-a-Stream" program and the DER Water Monitoring Program.

Provide technical assistance as requested to landowners desiring to implement corridor guides.

1600 INFORMATION
SERVICES

The information services provided for the Allegheny Wild and Scenic River are intended to satisfy the three information needs of users of the Allegheny River corridor. These needs are: directional, behavioral, and interpretive. The services will inform river users of recreational opportunities and laws and regulations pertaining to specific activities. Information will be provided through a variety of media, including but not limited to signs, brochures, personal contacts, and news media.

- Develop a sign plan for the river corridor including inventory of existing signs, analysis of needs and standards of future signing.
- Provide signing at access sites that informs users of the site location within the corridor, river regulations including water safety, emergency services, special interpretive features, and activities available in the area.
- Provide signing on the river to enable river users to locate and land safely at the public access sites.
- Through signing, brochures, and maps provide distances between various river features and access sites for convenience and safety of river users.
- All informational signing within the river corridor on National Forest will be uniform in color and design as provided in the Forest Service Sign Handbook and River Sign Plan (To be developed).
- Signing along roads, trails and within recreation sites should be simple, easily read and organized.
- An information system using a variety of media should be developed for river users that will identify public lands, recreation opportunities, public facilities, landmarks on the river, trail opportunities, regulations, safety messages, and special features/points of interest.

- All information media should emphasize "Leave No Trace or Pack-in Pack-out", respect private property rights , and water safety throughout the corridor
- Information and Interpretive media will be coordinated with the local agencies, Chambers of Commerce, Tourist Promotion Agencies, Oil Region Heritage Park, State agencies etc. to assure accuracy and eliminate redundancy
- Design an Allegheny River brochure that lists the three classifications of Wild and Scenic Rivers, and explains that the Allegheny has a "recreational" classification, identifies the values that made the river worthy of being a National Wild and Scenic River, tells why it needs to be protected and what the user can do to protect it, and includes information on sensitive, threatened and endangered species
- The Forest Service and the Pennsylvania Department of Environmental Resources will cooperate with and encourage riparian landowner organizations, local Chambers of Commerce, local governments, trail organizations, organized fishing groups, outfitters and guides, commercial establishments etc., to develop appropriate means of meeting the river users' recreational and informational needs.
- The Forest Service will cooperate with the Oil Region Heritage Park and others to develop an interpretation plan for the river that will be consistent throughout its length Interpretive information may include such themes as the riverine ecosystem, the outstanding remarkable values, cultural history, or the Allegheny Islands Wilderness

(On private land, it is recommended that signs should at least compliment the color and basic design of those on the National Forest and carry the Wild and Scenic River logo)

1900 LAND AND
RESOURCE MANAGE-
MENT PLANNING

Vegetative Management Planning

*Limit whole tree removal to soils with sufficient nutrient content and nutrient storage capacity to support the new stand of vegetation and maintain soil productivity

The current aspen component should be retained

Within aspen inclusions, 20 percent of the area should be in the 0-9 year age class, and 20 percent of the area should be in the 10-19 year age class Regeneration cuts should be relatively small (up to 10 acres in size)

Regeneration cutting of aspen should be done during the dormant season. Retain at least one downed log in each regeneration cutting. Each such log should be more than 10 inches in diameter.

Old growth habitat should be provided on a minimum of 10 percent of the area and should comprise at least 100 of each 1,000 acres.

Retain the following snags per acre:

<u>Tree Size</u>	<u>No Snags</u>
10" to 16" DBH	3
18" to 24" DBH	3
Greater than 24" DBH	3

2300 RECREATION MANAGEMENT

Recreation Opportunities

*Location of recreational developments will be determined with priority given to correcting health and safety problems, protecting the environment, complementing prescribed recreation opportunities, and meeting public demand.

*Selected areas, trails, and roads may be closed where appropriate to motorized vehicles during specific periods, such as hunting seasons, to provide for non-motorized experiences.

Provide opportunities for a semi-primitive motorized ROS class recreation experience. The roads necessary for wildlife management make the recreation setting a motorized class. Occasionally, local roads will remain open for access or to provide ORV opportunities. Hiking, skiing, hunting, and mountain biking will be encouraged on closed roads.

Three dispersed recreation management intensities were options within this area which varied by quantity and quality of trail building and recreation management.

- Low Intensity is defined as maintaining the current investments. We would maintain the existing trail system and would not develop any new trails.
- Medium Intensity is mid-way between Low and High Intensity.
- High Intensity established the upper limit on trail densities for each prescription by the respective Recreation Opportunity Spectrum (ROS) class.

If high intensity oil and gas development occurs in this management area, we will make no new recreation investments. Manage using a low recreation management intensity.

Management Area 6.1

The output objectives and the proposed and probable practice amounts are a result of the high intensity being selected

Recreation Sites

Recreation sites may be provided at development scale 3 or less. Some of the reservoir campgrounds which can be reached only by boat are within this management area. Generally these sites will be less than 50 campsites, will have vault toilets, carry-in and carry-out garbage policy, and hand pump water supply

Maintenance of sites will follow guidelines contained in FSM 2330, referenced handbooks, and ED&T #9099 titled "Cleaning Recreation Sites". Sites may be closed for economic or safety reasons

Alternative 2 of the Allegheny W&S River FEIS allows the development of two new access sites within the ANF proclamation boundary: 1) Tanbark and 2) Indian Valley (pending funding).

- Facilities provided for recreational activities will be compatible with the management objectives of this document.
- Recreational facilities will be designed to accomplish the future condition described on pages 27-28 of the Draft Management Plan
- Emphasize a "Leave No Trace" policy where users are required to haul away their own trash and leave no trace of their visit ("Leave No Trace" is a national program used by various federal agencies)
- Riparian vegetative buffers will be restored and maintained at access sites to screen man made elements as seen from the river
- Where feasible, boat launch sites will be designed to accommodate motorized watercraft as well as non-motorized watercraft.
- Design of all facilities should generally be in keeping with the surrounding form, line, color and texture of the river environment
- Maintain dispersed campsites to standards that protect the natural resources, respect private property, and maintains or enhances the recreation experience opportunities being provided. Develop a dispersed campsite management plan that includes inventory, analysis and recommendations for management standards

Trails

*Trail management will be compatible with the ROS objective of semi-primitive motorized

VARIETY CLASS	SENSITIVITY LEVEL & DISTANCE ZONE						
	FG1	MG1	BG1	FG2	MG2	BG2	3
Class A	R	R	R	R	R	PR	PR
Class B	R	PR	PR	PR	PR	M	M
Class C	PR	PR	PR	PR	M	M	M

Visual Quality Objectives - (R) Retention, (PR) Partial Retention, (M) Modification, (MM) Maximum Modification
 Variety Class - (A) Distinction, (B) Common, (C) Minimal
 Visual Distance Zone - (FG) Foreground, (MG) Middleground, (BG) Background
 Sensitivity Level - (1) Most Sensitive, (2) Sensitive, (3) Least Sensitive.

Vegetation will be allowed to evolve naturally within the forested riparian buffer, unless restoration work is necessary. Restoration work will use native plants. Maintain or enhance the streambank vegetation that provides screening of man-made facilities and activities.

Maintain or enhance the integrity of the Landscape Types 1 - 3 by allowing changes consistent with the future condition descriptions (pp 42-45, Allegheny W&S River FEIS).

Landscapes within the corridor will be managed under the visual quality objective of Retention which recommends that management activities not be visually evident to the average visitor. Any management activity or development should be designed to blend with the form, line, color and texture of the natural surroundings.

2400 TIMBER
MANAGEMENT

Silviculture Systems

Even-aged and uneven-aged silvicultural systems will be used to achieve the wildlife and recreation management objectives

Even-aged management will be used to benefit wildlife by increasing horizontal habitat diversity. It fulfills important habitat requirements for the wild turkey, black bear, white-tailed deer, management indicator species, and a variety of other small-game and non-game species. It may be used also for increasing visual diversity and providing viewpoints for recreationists in desirable locations.

If even-aged management is practiced, openings should be kept relatively small and irregular in shape to maintain the visual character of the corridor.

Uneven-aged management will be used to benefit wildlife by increasing mast and browse production, improving tree species composition and diversity, and increasing vertical habitat diversity. It will be used where

cutting is planned in visually sensitive areas to provide a continuous canopy or visual variety in recreation travelways and use areas

Harvesting Cutting Methods

Seasonal restrictions will occur to protect or manage the featured wildlife species and/or provide non-motorized recreational opportunities

Temporary Openings Created by the Application of Even-Aged Silviculture

Temporary openings created by even-aged management will usually not exceed 20 acres. In the following cases, the size may exceed 20 acres:

- When consistent with wildlife and recreation objectives, the size may be as large as 25 acres;
- Where larger units, not to exceed 40 acres, will produce a more desirable combination of net public benefits,
- On an individual sale basis after 60 days public notice and review by the Regional Forester;
- As a result of natural catastrophic condition, such as fire, insect and disease attack, or windstorm

Creation and size definition of temporary openings will be governed by the wildlife management objectives

Openings that can be seen from the river should be relatively small in size and of irregular shape, so that they blend into the landscape.

Frequency of Entry and Intensity

Timber harvesting will be necessary to achieve the wildlife management objectives. Sales will be scheduled to improve wildlife habitat, and the treatments will be based on an inventory of the existing habitat conditions. The timber harvest will vary in intensity within this management area to achieve both the wildlife and recreation management objectives.

The earliest age for regeneration cutting by timber type and management period is the following

<u>Timber Type</u>	<u>Minimum Rotation Age by Management Period (Decade)</u>		
	<u>1-2</u>	<u>3</u>	<u>4-15</u>
Northern Hardwoods (Beech Hemlock) ¹	120	120	120
Northern Hardwoods (miscellaneous) ²	90	100	120
Allegheny Hardwoods	≥80	≥100	≥100
Oak	≥80	≥100	≥120
Aspen	40	40	40
Conifers (plantations)	100	100	100

1 - Stands comprised of a plurality of Beech or Beech/Hemlock basal area

2 - Stands not comprised of a plurality of Beech or Beech/Hemlock

Firewood

Firewood will be available for public use only when its removal is compatible with the wildlife management objective for the stand. Only designated material may be removed for fuelwood purposes.

Pulpwood

Pulpwood on commercial timber sales will be addressed by either:

- 1) Mark or designate all merchantable products in all cut trees and require that they be paid for, cut, and removed. Undesirable saplings will be removed with KV funds, if necessary, to meet the cutting prescription.
- 2) Mark or designate all merchantable products in all cut trees, but make pulpwood removal optional. Cut pole timber with KV funds, if the option is not taken.

Timber Stand Improvement

The improvement of stands of timber will be based upon wildlife or recreation management objectives. For example, this technique may be utilized to increase mast production, improve species composition and diversity, alter vertical stand structure, or improve visual quality. This activity may be conducted non-commercially or commercially.

Reforestation

Reforest all areas which receive a final harvest cut except where the objective is to create a permanent opening.

2500 WATER AND SOIL Riparian Area Management
RESOURCE MANAGEMENT

Riparian area management includes the riparian zone and the riparian zone of influence (see Figure A, page 10 of the Draft Management Plan).

Perennial Streams

Along perennial streams, streamside management zones would be established to meet fisheries and wildlife management objectives. The distances, listed in Table III-1, are for each side of a stream, and could be located within a wider riparian area.

STREAM WIDTH (bankfull)	STREAMSIDE MANAGEMENT ZONE
Defined stream channel <10'	75' +2/1% slope
>10'	100' +2/1% slope

As stream width increases, the size of large woody debris must also increase to be effective in the formation of quality fish habitat. To provide long-term input of large woody debris to a stream, a sufficient number of trees within the streamside management zone should be allowed to grow to biological maturity. These trees, as some begin to fall naturally into streams, create habitat diversity for aquatic life. These zones do not necessarily follow riparian area boundaries and are the most effective on tributaries to the Allegheny River.

Intermittent Streams

Intermittent streams within the corridor should be managed to:

- Maintain trees that are providing streambank stability,
- Maintain trees growing within a stream channel for stability purposes;
- Provide for continued input of leaf litter (intermittent streams transport leaf litter by periodic flushings into downstream reaches of perennial waters, as well as provide habitat for aquatic invertebrates within these intermittent channels [Williams and Hynes 1976, Williams and Hynes 1977]), and

- Continue with the current Forest Plan standard and guideline of a suggested filter strip width during timber harvesting of 50'-2'/1% slope (Forest Plan page 4-24), or the actual size of the riparian area, whichever is larger

2600 WILDLIFE
HABITAT MANAGEMENT

*Protect existing spring seeps and other water areas critical to wintering wildlife.

*Provide wetland habitats to meet the requirements of management indicator species.

*Favor selective treatment of transmission line rights-of-way vegetation to improve wildlife forage.

*Manage permanent openings and grasslands in upland forest areas to meet needs of management indicator species.

*Provide special habitat requirements necessary to maintain viable populations of those species that require isolation.

STANDARDS AND GUIDELINES FOR MANAGEMENT AREA 6 4

ALLEGHENY NATIONAL RECREATION AREA

1500 EXTERNAL
RELATIONS

Human and Community Development

Volunteers and personnel from other programs hosted by the Forest Service could be used to accomplish needed work within the river corridor. Encourage participation in the Pennsylvania Fish and Boat Commission's "Adopt-a-Stream" program and the DER Water Monitoring Program.

Provide technical assistance as requested to landowners desiring to implement corridor guides.

1600 INFORMATION
SERVICES

The information services provided for the Allegheny Wild and Scenic River are intended to satisfy the three information needs of users of the Allegheny River corridor. These needs are directional, behavioral, and interpretive. The services will inform river users of recreational opportunities and laws and regulations pertaining to specific activities. Information will be provided through a variety of media, including but not limited to signs, brochures, personal contacts, and news media.

- Develop a sign plan for the river corridor including inventory of existing signs, analysis of needs and standards of future signing
- Provide signing on the river to enable river users to locate and land safely at the public access sites
- Through signing, brochures, and maps provide distances between various river features and access sites for convenience and safety of river users
- All informational signing within the river corridor on National Forest will be uniform in color and design as provided in the Forest Service Sign Handbook and River Sign Plan (To be developed). Signing along roads, trails and within recreation sites should be simple, easily read and organized.
- An information system using a variety of media should be developed for river users that will identify public lands, recreation opportunities, public facilities, landmarks on the river, trail opportunities, regulations, safety messages, and special features/points of interest
- All information media should emphasize "Leave No Trace or Pack-in Pack-out", respect private property rights, and water safety throughout the corridor

Management Area 6.4

- Information and Interpretive media will be coordinated with the local agencies, Chambers of Commerce, Tourist Promotion Agencies, Oil Region Heritage Park, State agencies etc. to assure accuracy and eliminate redundancy.
- Design an Allegheny River brochure that lists the three classifications of Wild and Scenic Rivers, and explains that the Allegheny has a "recreational" classification, identifies the values that made the river worthy of being a National Wild and Scenic River, tells why it needs to be protected and what the user can do to protect it, and includes information on sensitive, unthreatened and endangered species.
- The Forest Service and the Pennsylvania Department of Environmental Resources will cooperate with and encourage riparian landowner organizations, local Chambers of Commerce, local governments, trail organizations, organized fishing groups, outfitters and guides, commercial establishments etc., to develop appropriate means of meeting the river users' recreational and informational needs
- The Forest Service will cooperate with the Oil Region Heritage Park and others to develop an interpretation plan for the river that will be consistent throughout its length. Interpretive information may include such themes as the riverine ecosystem, the outstanding remarkable values, cultural history, or the Allegheny Islands Wilderness

(On private land, it is recommended that signs should at least compliment the color and basic design of those on National Forest and carry the Wild and Scenic River logo)

1300 LAND AND
RESOURCE MANAGE-
MENT PLANNING

Vegetation Management

Vegetative management shall be done only to maintain or enhance existing recreation, wildlife, or watershed values, except to facilitate private mineral resource exploration and development

2000 RECREATION
MANAGEMENT

Opportunities

Protect and enhance the existing opportunities for semi-primitive motorized and non-motorized recreation experiences

Semi-primitive motorized POS class recreation experiences will be emphasized in the NPA

Non-motorized recreation opportunities will be emphasized on the interior of the NRA in the existing undeveloped portions

Public motorized vehicle use will not be permitted except for motorized use on the Allegheny Reservoir and vehicles in the developed recreation areas

Recreation Sites

With the exception of existing sites, recreation sites may be provided at development scale 3 or less. Some of the reservoir "boat-to" campgrounds are within this management goal. Generally these sites will have less than 50 campsites, with vault toilets, carry-in and carry-out garbage policy, and hand pump water supplies

Maintenance of sites will follow guidelines contained in FSI 2330, referenced handbooks, and ED&T #9099 titled "Cleaning Recreation Sites " Sites may be closed for economic or safety reasons

Where possible, developed recreation facilities (permanent campgrounds, etc.) should be limited to those general areas where they already occur and should not be planned in the more remote and wild areas.

Emphasize a "Leave No Trace" policy where users are required to haul away their own trash and leave no trace of their visit.

*Location of recreational developments will be determined with priority given to correcting health and safety problems, protecting the environment, complementing prescribed recreation opportunities, and meeting public demand.

Trails

*Trail management will be compatible with the ROS objectives.

Trail types appropriate to this management area are

- Pedestrian Summer
- Equestrian Summer
- Pedestrian Winter

The choice of which type to be constructed will be based on analysis of demand, existing supply (both public and private), suitable locations, plans of other agencies, and plans of private sector at the time of implementation

Trails may include all three difficulty classes of Easiest, More, and Most Difficult to provided a full range of experiences

Interpretation

At trailheads into the management area, personal contact, brochure racks, and bulletin boards will be utilized to interpret the environment and inform users about proper use of the area.

Off-Road Vehicles (ORV)

*Use of motorized vehicles off roads will not be permitted in the NRA. Exceptions include use of administrative vehicles, emergency vehicles, use authorized by permit or contract (relating to outstanding private OGM rights)

*Cultural Resources

*Priorities will be set for evaluation of cultural resources for the National Register of Historic Places.

*Assess the nature and degree of damage to cultural resources caused by vandalism, visitor use, and natural deterioration and identify protective measures to be implemented

*Interpretation of cultural resources should be compatible with the natural character and recreation opportunities of this area

Visual Quality

Management activities should meet the Visual Quality Objectives (VQO) displayed in the chart below by sensitivity levels, distance zones, and variety classes

VARIETY CLASS	SENSITIVITY LEVEL & DISTANCE ZONE						
	FG1	MG1	BG1	FG2	MG2	BG2	3
Class A	R	R	R	R	R	PR	PR
Class B	R	PR	PR	PR	PR	M	M
Class C	PR	PR	PR	PR	M	M	M

Visual Quality Objectives - (P) Retention, (PR) Partial Retention, (M) Modification, (M!) Maximum Modification
Variety Class - (A) Distinction, (B) Common, (C) Minimal
Visual Distance Zone - (FG) Foreground, (MG) Middle-ground, (BG) Background
Sensitivity Level - (1) Most Sensitive, (2) Sensitive, (3) Least Sensitive

Vegetation will be allowed to evolve naturally within the forested riparian buffer, unless restoration work is necessary. Restoration work will use native plants. Maintain or enhance the streambank vegetation that provides screening of man-made facilities and activities

Maintain or enhance the integrity of the Landscape Types 1 - 3 by allowing changes consistent with the future condition descriptions (pp 42-45, Allegheny W&S River FEIS).

Landscapes within the corridor will be managed under the visual quality objective of Retention which recommends that management activities not be visually evident to the average visitor. Any management activity or development should be designed to blend with the form, line, color and texture of the natural surroundings.

2400 TIMBER
MANAGEMENT

Silvicultural Systems

Timber will be harvested only to achieve wildlife and recreation management objectives.

Uneven-aged management or salvage may be an option used to maintain browse and mast production around existing habitat improvements to maintain continuous canopy in visually sensitive areas, or to provide visual variety in recreation travelways or use areas.

Even-aged management may be an option for creating or maintaining permanent openings for wildlife; for increasing visual variety; and providing viewpoints for recreationists.

When even-aged management is used, openings should be relatively small and irregular in shape so that treatments blend in with the landscape

Temporary Openings Created by the Application of Even-aged Silviculture

Temporary openings created by even-aged management will generally not exceed ten acres, except as provided below:

- On an individual sale basis after 60 days public notice and review by the Regional Forester.
- As a result of natural catastrophic condition, such as fire, insect and disease attack, or windstorm.

Openings that can be seen from the river should be relatively small in size and of irregular shape, so that they blend into the landscape

Frequency of Entry and Intensity

A limited amount of commercial timber sales may be necessary to achieve wildlife management objectives.

Timber harvest is unscheduled and will vary in intensity

Firewood

Firewood may be gathered for use within the NRA boundary. If significant resource damage is expected, gathering may be restricted by Forest Supervisor order.

Reforestation

Reforestation will be done to meet wildlife and recreation objectives.

2500 WATER AND SOIL
RESOURCE MANAGEMENT

Riparian Area Management

Riparian areas will be managed to emphasize riparian dependent resources which contribute to the objectives of this management area. Such resources include wildlife habitat, fish habitat in the Allegheny River, Allegheny Reservoir, and streams; and dispersed recreation opportunities. Appropriate activities in riparian areas may include wildlife and fish habitat improvement, and trail construction.

Public use of specific areas may be limited to protect water quality.

Trails will be located to protect soil and water quality values.

Riparian area management includes the riparian zone and the riparian zone of influence (see Figure A, page 10 of the Draft Management plan).

1) Perennial Streams

Along perennial streams, streamside management zones would be established to meet fisheries and wildlife management objectives. The distances, listed in the following table, are for each side of a stream, and could be located within a wider riparian area.

Streamside Management Zone Distances

STREAM WIDTH (bankfull)	STREAMSIDE MANAGEMENT ZONE
Defined stream channel <10'	75' -2/1% slope
>10'	100' +2/1% slope

As stream width increases, the size of large woody debris must also increase to be effective in the formation of quality fish habitat. To provide long-term input of large woody debris to a stream, a sufficient number of trees within the streamside management zone should be allowed to grow to biological maturity. These trees, as some begin to fall naturally into streams, create habitat diversity for aquatic life. These zones do not necessarily follow riparian area boundaries and are the most effective on tributaries to the Allegheny River.

2) Intermittent Streams

Intermittent streams within the corridor should be managed to

- maintain trees that are providing streambank stability,
- maintain trees growing within a stream channel for stability purposes;
- provide for continued input of leaf litter (intermittent streams transport leaf litter by periodic flushings into downstream reaches of perennial waters, as well as provide habitat for aquatic invertebrates within these intermittent channels [Williams and Hynes 1976, Williams and Hynes 1977]), and
- continue with the current Forest Plan standard and guideline of a suggested filter strip width during timber harvesting of 50'-2'/1% slope (Forest Plan page 4-24), or the actual size of the riparian area, whichever is larger

1400 WILDLIFE
- HABITAT MANAGEMENT

*Provide wetland habitats to meet the requirements of management indicator species

*Provide special habitat requirements necessary to maintain viable populations of those species that require isolation.

*Favor selective treatment of transmission line rights-of-way vegetation to improve wildlife forage

STANDARDS AND GUIDELINES FOR MANAGEMENT AREA 7

1500 EXTERNAL RELATIONS

Human and Community Development

Volunteers and personnel from other programs hosted by the Forest Service could be used to accomplish needed work within the river corridor. Encourage participation in the Pennsylvania Fish and Boat Commission's "Adopt-a-Stream" program and the DER Water Monitoring Program.

Provide technical assistance as requested to landowners desiring to implement corridor guides.

1600 INFORMATION SERVICES

The information services provided for the Allegheny Wild and Scenic River are intended to satisfy the three information needs of users of the Allegheny River corridor. These needs are directional, behavioral, and interpretive. The services will inform river users of recreational opportunities and laws and regulations pertaining to specific activities. Information will be provided through a variety of media, including but not limited to signs, brochures, personal contacts, and news media.

- Develop a sign plan for the river corridor including inventory of existing signs, analysis of needs and standards of future signing .
- Provide signing at access sites that informs users of the site location within the corridor, river regulations including water safety, emergency services, special interpretive features, and activities available in the area
- Provide signing on the river to enable river users to locate and land safely at the public access sites
- Through signing, brochures, and maps provide distances between various river features and access sites for convenience and safety of river users.
- All informational signing within the river corridor on National Forest will be uniform in color and design as provided in the Forest Service Sign Handbook and River Sign Plan (To be developed) Signing along roads, trails and within recreation sites should be simple, easily read and organized.
- An information system using a variety of media should be developed for river users that will identify public lands, recreation opportunities, public facilities, landmarks on the river, trail opportunities, regulations, safety messages, and special features/points of interest.

Management Area 7

- All information media should emphasize "Leave No Trace or Pack-in Pack-out", respect private property rights, and water safety throughout the corridor
- Information and Interpretive media will be coordinated with the local agencies, Chambers of Commerce, Tourist Promotion Agencies, Oil Region Heritage Park, State agencies etc to assure accuracy and eliminate redundancy
- Design an Allegheny River brochure that lists the three classifications of Wild and Scenic Rivers, and explains that the Allegheny has a "recreational" classification, identifies the values that made the river worthy of being a National Wild and Scenic River, tells why it needs to be protected and what the user can do to protect it, and includes information on sensitive, threatened and endangered species.
- The Forest Service and the Pennsylvania Department of Environmental Resources will cooperate with and encourage riparian landowner organizations, local Chambers of Commerce, local governments, trail organizations, organized fishing groups, outfitters and guides, commercial establishments etc., to develop appropriate means of meeting the river users' recreational and informational needs
- The Forest Service will cooperate with the Oil Region Heritage Park and others to develop an interpretation plan for the river that will be consistent throughout its length. Interpretive information may include such themes as the riverine ecosystem, the outstanding remarkable values, cultural history, or the Allegheny Islands Wilderness

(It is recommended that on private land, signs should at least compliment the color and basic design of those on National Forest and carry the Wild and Scenic River logo)

2300 RECREATION
MANAGEMENT

Opportunities

*Location of recreational developments will be determined with priority given to correcting health and safety problems, protecting the environment, complementing prescribed recreation opportunities, and meeting public demand

*Feature Rural ROS class recreation opportunities

Recreation Sites

Construction of new sites will occur at development scale 4 or 5. Sites will be larger than 50 campsites or 250 PAOT. The sites will usually have pressure water systems, sewage treatment plants, hot showers, paved service roads, and outdoor lighting.

All structures and facilities will be designed and located to maintain a natural or rustic appearance.

Structures will not be more than two stories high.

Natural building materials, such as stone and wood, will be used on the exterior of all structures.

Earth-tone colors will be used for all exterior finishes.

The visual quality objectives will be met primarily through vegetative screening of structures seen from a distance.

These sites may be developed and operated by the private sector under permit to the U S Government.

Emphasize a "Leave No Trace Policy" where users are required to haul away their own trash and leave no trace of their visit.

Trails

*Trail management will be compatible with the ROS objective.

Trail types appropriate for this management area are:

- Motorized Summer
- Pedestrian Summer
- Equestrian Summer
- Motorized Winter
- Pedestrian Winter

The choice of trails to be constructed will be based on analysis of demand, existing supply (both public and private), suitable locations, plans of other agencies and plans of private sector at the time of implementation.

Trails may include two difficulty classes of Easiest, and More Difficult to provide a range of experiences within the Rural ROS class.

Interpretation

In this area, manned interpretive and information facilities may be utilized to inform and educate Forest visitors.

Visual Quality

Management activities should meet the Visual Quality Objectives (VQO) displayed in the chart below by sensitivity levels, distance zones, and variety classes.

VARIETY CLASS	SENSITIVITY LEVEL & DISTANCE ZONE						
	FG1	MG1	BG1	FG2	MG2	BG2	3
Class A	R	PR	PP	PR	M	M	M
Class B	PR	M	M	PR	M	MM	M
Class C	PR	M	M	M	MM	MM	MM

Visual Quality Objectives - (R) Retention, (PR) Partial Retention, (M) Modification, (MM) Maximum Modification
Variety Class - (A) Distinction, (B) Common, (C) Minimal
Visual Distance Zone - (FG) Foreground, (MG) Middleground, (BG) Background
Sensitivity Level - (1) Most Sensitive, (2) Sensitive, (3) Least Sensitive.

Vegetation will be allowed to evolve naturally within the forested riparian buffer, unless restoration work is necessary. Restoration work will use native plants Maintain or enhance the streambank vegetation that provides screening of man-made facilities and activities.

Maintain or enhance the integrity of the Landscape Types 1 - 3 by allowing changes consistent with the future condition descriptions (pp 42-45, Allegheny W&S River FEIS)

Landscapes within the corridor will be managed under the visual quality objective of Retention which recommends that management activities not be visually evident to the average visitor. Any management activity or development should be designed to blend with the form, line, color and texture of the natural surroundings.

Cultural Resources

*Priorities will be set for evaluation of cultural resources for the National Register of Historic Places.

*Assess the nature and degree of damage to cultural resources caused by vandalism, visitor use, and natural deterioration and identify protective measures to be implemented

*Emphasize development and interpretation of significant cultural resources to enhance recreation opportunities

Interpretation may occur during the evaluation or the excavation of major sites, and the excavation may be featured as well as the findings of the evaluation or excavation.

2400 TIMBER
MANAGEMENT

Silvicultural Svstems

Timber will be managed for visual, recreational, and safety purposes in the developed area. Single tree selection and group selection will be emphasized.

Salvage of timber products may occur in developed areas.

Whole tree removal will be emphasized in developed areas.

A vegetative management plan should be developed for each area and address the size of temporary openings.

Timber harvest is unscheduled

Harvesting may be restricted to periods of low recreation use to minimize user conflict

Firewood

Fuelwood may be made available for public use

Pulpwood

Mark or designate all merchantable products in all cut trees and require that they be paid for, cut, and removed. Undesirable saplings will be removed with KV funds, if necessary, to meet the cutting prescription

Reforestation and Timber Stand Improvement

These activities will usually not occur except when necessary to achieve the management objectives of the area or to protect adjacent land owners from fire or pests

2500 WATER AND SOIL
RESOURCE MANAGEMENT

Intensive structural and nonstructural practices for erosion control should be used as necessary to prevent soil loss and water quality degradation in areas receiving heavy recreation use. Practices may include paving, terracing, gabion installation, rip-rapping, etc

Riparian Area Management

Riparian area management includes the riparian zone and the riparian zone of influence (see Figure A, page 10 of the Final Allegheny W&S River Management Plan)

1) Perennial Streams

Along perennial streams, streamside management zones would be established to meet fisheries and wildlife management objectives. The distances, listed in Table III-1, are for each side of a stream, and could be located within a wider riparian area.

Streamside Management Zone Distances

STREAM WIDTH (bankfull)	STREAMSIDE MANAGEMENT ZONE
Defined stream channel <10'	75' +2/1% slope
>10'	100' +2/1% slope

As stream width increases, the size of large woody debris must also increase to be effective in the formation of quality fish habitat. To provide long-term input of large woody debris to a stream, a sufficient number of trees within the streamside management zone should be allowed to grow to biological maturity. These trees, as some begin to fall naturally into streams, create habitat diversity for aquatic life. These zones do not necessarily follow riparian area boundaries and are the most effective on tributaries to the Allegheny River.

2) Intermittent Streams

Intermittent streams within the corridor should be managed to

- maintain trees that are providing streambank stability,
- maintain trees growing within a stream channel for stability purposes,
- provide for continued input of leaf litter (intermittent streams transport leaf litter by periodic flushings into downstream reaches of perennial waters, as well as provide habitat for aquatic invertebrates within these intermittent channels [Williams and Hynes 1976, Williams and Hynes 1977]), and
- continue with the current Forest Plan standard and guideline of a suggested filter strip width during timber harvesting of 50'+2'/1% slope (Forest Plan page 4-24), or the actual size of the riparian area, whichever is larger

5400 LAND OWNERSHIP Subsurface

Private mineral rights should be acquired as necessary to protect research values

Priority will be given to the Tionesta Research Natural Area.

7700 TRANSPORTATION SYSTEM Local roads will be Traffic Service Level "D". These local roads will be closed to public vehicles.

BUCKALOONS HISTORIC DISTRICT

1900 LAND AND RESOURCE MANAGEMENT PLANNING Vegetative

Plant a diversity of native warm season-grasses (including the reintroduction of "Brokenstraw grass" to the area in selected locations) to prevent adverse impacts upon cultural resources and recreation

2300 RECREATION MANAGEMENT Opportunities

Manage the area to provide the opportunity to provide opportunity for recreational activities oriented to understanding and appreciating the area for its heritage and ecological values.

Enhancing hunting opportunities (pheasants, rabbits, waterfowl) is permitted

Trails

Manage trails within the area to provide a quality heritage experience

Provide and maintain a variety of trail settings from primitive to developed

Off-Road Vehicles (ORV)

ORV use will not be permitted

Heritage Resources

Ensure that prehistoric, historic, archaeological and natural history sites and values are studied, preserved, or protected in accordance with cultural resource regulations. Provide for interpretation and enjoyment of these sites, along with provisions for developed and dispersed recreation and protection of visual quality

Provide for safe use of the sites.

Coordinate with the Carnegie Museum of Natural History, the Warren County historical Society, the Pennsylvania Historic Museum Commission, the Seneca Nation, and the Clinton E Wilder Museum to ensure protection and enhancement of the cultural values and recreational resource values of this archaeological district

Restrict hunter conflicts with heritage resources

Conduct cultural resource studies and surveys which identify cultural resource values associated with this area.

Maintain and enhance cultural resource values

Implement specific standards for site-specific management and protection of historical values of the area.

Seek protection and access to prehistoric and historic sites through available means such as scenic easements or cooperative agreements

Interpretive

Provide interpretive services which enhance public understanding and appreciation of cultural and ecological values

Sufficiently mark historic foundation and locations of special interest using standard signs so that users can locate and learn about the history and prehistory of the area.

Visual

Manage visual resource to enhance visual appeal and to rehabilitate historic landscapes that do not meet adopted visual quality objectives

0400 TIMBER MANAGEMENT

In Buckaloons, timber harvesting will only be implemented to achieve heritage resource and wildlife management objectives

0500 WATER AND SOIL RESOURCE MANAGEMENT

Historic landtypes and landscape will be encouraged

Native plant material will be required for water and site restoration

Riparian Area Management

Creation or enhancement of riparian-dependent resources, such as wildlife and fish habitat or recreation opportunities, is highly appropriate

Riparian area management includes the riparian zone and the riparian zone of influence (see Figure A, page 10 of the Allegheny W&S River Management Plan).

1) Perennial Streams

Along perennial streams, streamside management zones would be established to meet fisheries and wildlife management objectives. The distances, listed in the following table, are for each side of a stream, and could be located within a wider riparian area.

Streamside Management Zone Distances

STREAM WIDTH (bankfull)	STREAMSIDE MANAGEMENT ZONE
Defined stream channel <10'	75' +2/1% slope
>10'	100' +2/1% slope

As stream width increases, the size of large woody debris must also increase to be effective in the formation of quality fish habitat. To provide long-term input of large woody debris to a stream, a sufficient number of trees within the streamside management zone should be allowed to grow to biological maturity. These trees, as some begin to fall naturally into streams, create habitat diversity for aquatic life. These zones do not necessarily follow riparian area boundaries and are the most effective on tributaries to the Allegheny River.

2) Intermittent Streams

Intermittent streams within the corridor should be managed to:

- maintain trees that are providing streambank stability;
- maintain trees growing within a stream channel for stability purposes,
- provide for continued input of leaf litter (intermittent streams transport leaf litter by periodic flushings into downstream reaches of perennial waters, as well as provide habitat for aquatic invertebrates within these intermittent channels [Williams and Hynes 1976, Williams and Hynes 1977]), and
- continue with the current Forest Plan standard and guideline of a suggested filter strip width during timber harvesting of 50'-2'/1% slope (p. 4-24), or the actual size of the riparian area, whichever is larger

2600 WILDLIFE
MANAGEMENT

Manage small game habitat within adopted Visual Quality Objectives

In the Buckaloons Historic District, wildlife habitat improvements will emphasize habitat enhancement and maintenance for early successional species and wetland/riparian species. Potential projects include the establishment of native warm season grasses, mowing and/or burning of some field, cutting of some large woody vegetation to set back succession, and planting herbaceous species to enhance wetland/prairie areas for wildlife.

2700 SPECIAL USES

Utility Transmission Corridors

Designate as an avoidance area for potential utility corridor

2800 MINERALS AND
GEOLOGY

All minerals under the Buckaloons Historic District are federally owned. No surface occupancy stipulations are applicable.

5100 FIRE
MANAGEMENT

Limit size of individual wildfires

Treat activity and natural fuels to meet the area's resource and visual objectives

Use prescribed fire from planned ignitions as needed to achieve Forest Plan Direction for wildlife, recreation and heritage resource management

Confine, contain, or control wildfires. Be consistent with adjacent area management direction

Protect heritage resources during suppression activities.

7100 TRANSPORTATION
SYSTEMS

Protect cultural and recreational resource values when developing road access from or through the area.

Allow new road access across the area when no other reasonable alternatives exist and then only with maximum protection of historical, visual, and recreational values. Mitigate effects of roads on recreational and cultural values.

ALLEGHENY NATIONAL FOREST
LAND AND RESOURCE MANAGEMENT PLAN

September 30, 1997

Amendment No. 8

Posting Notice Amendments to this Forest Plan are numbered consecutively. Check the last transmittal received for this Plan to see that the above amendment is received and posted. Do not post this amendment until any missing ones are received and posted.

Amendment No. 8 makes the following change

<u>Page Code</u>	<u>Page Color</u>	<u>Superseded</u> (Number or Pages)	<u>New</u>
p 4-41	Ivory	1	1

Digest.

p 4-41	Adds the final paragraph on the page which addresses the management of vegetation in electric utility rights-of-way crossing the Allegheny National Forest.
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JOHN E PALMER
Forest Supervisor

Enhance the habitat of "Species of Special Concern in Pennsylvania" Their letters of concurrent are on file in the Forest Supervisor's office

2700 SPECIAL USE
MANAGEMENT

Permittees must meet the same environmental standards that apply to Forest Service facilities

The burden of proof is upon the special use applicant to justify need for use of National Forest lands.

The establishment of commercial and tourist service facilities will be considered where private lands are not available for such development, and where development on federal lands can be demonstrated to provide a service fulfilling a public need beyond the state and local context

Cabin permits on National Forest land will be terminated prior to December 31, 1996 Recreation residences in established areas will be reviewed and phased out prior to December 31, 1996, when such action is in the public interest

Consolidate right-of-way uses into use corridors whenever practical Locate utility corridors to avoid heavily-used recreation areas and special ecological or other special interest sites

Special use permittees will be required to bury all new pipelines, telephone lines, and powerlines up to and including 34.5 KV, except those to be placed on existing poles or towers

Forest Supervisor may approve exceptions when

- The applicant provides evidence that burying the utility line is not feasible, and/or
- An environmental assessment of alternatives supports the exception

All rights-of-way except continuously used road surfaces on National Forest land should be stabilized through seeding or other natural means

Cooperative trout nurseries operating under special use permits from the Allegheny National Forest shall receive approval from the appropriate agency before planting trout in waters on the National Forest.

Powerline rights-of-way crossing National Forest land shall be managed in an environmentally-sensitive fashion to provide safe, reliable, and efficient service to consumers Management of vegetation shall follow the guidelines established for Alternative 2 in the EIS for Vegetation Management on Electric Utility Rights-of-Way (Allegheny National Forest et al, May 1997) As new information becomes available, other herbicides and/or treatment techniques may be considered for use.

Federal Minerals

Explorations

*All lands will be available for exploration that does not disturb the land surface.

Most lands outside the National Recreation Areas and Wilderness will be available for surface-disturbing exploration (including core drilling)

*The reasons for closing an area to land-disturbing exploration must be supportable and documented.

Development

The Forest Service will encourage inventory and development of federal minerals, especially minerals of compelling domestic significance, as defined by the U.S. Department of Interior. Developments will be designed, constructed, and operated in a manner that is compatible with the surface resource objectives of the management area

Compatibility determination for the Federal oil and gas ownership will be by an Environmental Assessment. A similar compatibility analysis will be done for oil and gas properties acquired by the federal government in the future.

Federal Minerals within the Wilderness Area and the National Recreation Areas were withdrawn from leasing by the passage of the Pennsylvania Wilderness Act of 1984

Private Minerals (includes oil, gas, and minerals outstanding or reserved in deeds)

*Land management decisions must not preclude the ability of private mineral owners to make reasonable use of the surface, as defined by deed and public law

ALLEGHENY NATIONAL FOREST
LAND AND RESOURCE MANAGEMENT PLAN

September 30, 1997

Amendment No. 9

Posting Notice: Amendments to this Forest Plan are numbered consecutively. Check the last transmittal received for this Plan to see that the above amendment is received and posted. Do not post this amendment until any missing ones are received and posted.

Digest of changes: Amendment No. 9 makes the following change to the page specified:

<u>Page</u>	<u>Location</u>	<u>Change</u>
p 4-82	Heading	Changes 328,000 acres to 327,998

In an effort to reduce duplication and mailing costs for the minor changes made to page 4-82, we ask that you make the appropriate acreage changes in your copy of the Forest Plan.

In addition, we are including a copy of the Forest Plan Management Area map identifying the approximate location of the 2-acre parcel removed from National Forest ownership.

JOHN E. PALMER
Forest Supervisor

