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## **1900 Land and Resource Management Planning**

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### **Vegetative Management**

Favor native species when restoring disturbed areas or providing vegetative screening.

Non-native vegetation may be utilized when needed to enhance wildlife habitat. This includes forest trees, shrubs, and herbaceous plants not native to the Forest (such as white spruce, crabapple, crown vetch, and trefoil). Exotic shrubs with persistent fruit may be used in turkey wintering areas to complement existing native foods.

Unique plant communities will be recognized and protected wherever they occur. Their location will be identified on the compartment map for coordination purposes.

When revegetating disturbed areas, choose seed mixtures that achieve both erosion control and wildlife objectives.

In intermediate cuttings, Dogwoods, Hophornbeam, American Hornbeam, Witch Hazel, Serviceberry and other low-growing, flowering, and fruiting trees and shrubs should not be cut. In clearcuts, these species will not be cut unless their presence would preclude adequate regeneration of the desired commercial species. Wild grape areas will be maintained or enhanced in suitable locations.

When thinning, retain species which are minor components of a stand, particularly mast producers.

Retain hickory and black gum in stands where they occur naturally.

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## **2100 Environmental Management**

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### **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.

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## **2300 Recreation Management**

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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.

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

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 OGM 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.

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.

The minimum required visual quality objective of any given activity is "Maximum Modification." Insure that areas in an "Unacceptable Modification" state are upgraded to the adopted visual quality objective. Assign the short-term goal of "Rehabilitation" to these areas during and subsequent to the resource management activity.

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## **2400 Timber Management**

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### **Reforestation**

#### ***Artificial Regeneration***

Species planted will be those best suited to the site conditions and be genetically improved stock when available. Soil drainage and planting stock availability may influence species choice.

Hardwood seedlings should be at least two feet tall. Planting will normally be done between April 15 - May 30.

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## **2500 Water and Soil Management**

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### **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.

### **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.

### **Soil and Water Conservation**

#### ***Soil Group II***

Road construction should be avoided on colluvial soils (Ernest Silt Loam) formed on Devonian shales because of the high hazard of slippage and landslides.

This group may need geotextiles in road construction to mitigate problems caused by the perched water table.

All containment pits for waste fluids from oil/gas practices must be lined with impermeable material.

#### ***Soil Group III***

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***

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.

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.

### ***Coordination of Water Resources with Transportation***

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.

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.

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.

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 stream crossings to discharge road sediment onto the forest floor rather than into the stream. Alternatively, sediment traps can be used.

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

### ***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.

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 stream crossings to discharge road sediment onto the forest floor rather than into the stream. Energy dissipaters 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 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.

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.

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.

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.

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## **2600 Wildlife, Fish and Sensitive Plant Habitat**

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### **Thermal Cover**

Native conifers, rhododendron, and mountain laurel should be used to provide thermal cover.

### **Spring Seeps**

Locate haul roads at least 50 yards downstream from the head of the seep and avoid road construction within 50 yards uphill from seeps. Use appropriate erosion control methods to minimize the movement of silt into the seep.

Remove all slash and logs from the seep channel and clearings that are created.

### **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**

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 reasonably conform to Wilderness Trout Streams according to Pennsylvania Fish Commission Policy No. 400-17-69. 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.

### **Forest Species of Concern**

#### Selected bird guidelines during the nesting season

Prohibit disturbances within approximately 330 feet of each existing nesting location, except those necessary to protect the nest or colony.

Prohibit significant changes in the landscape within 660 feet of each existing nesting location.

Restrict management activities\* that result in adverse disturbance to nesting birds within approximately 1,320 feet of each nest location.

\* Includes road and trail construction and maintenance, timber cutting and hauling, oil and gas development (where possible), right-of-way management, etc.

The species included here and their critical time periods are the following:

Osprey - May 1 to August 15

Cooper's Hawk - March 1 to July 31

Red-shouldered Hawk - March 1 to June 30

Northern Goshawk - April 1 to July 31

Sharp-shinned Hawk - April 15 to August 15

Great Blue Heron - March 1 to August 31

Raven - February 1 to May 15

### Bald Eagle

Year-round, all activities that may disturb eagles or significantly alter habitat including, but not limited to, timber harvesting, land clearing, federal oil and gas development, road construction and operation, and trail construction and operation, shall be prohibited within a zone extending at least 660 feet from the nest. This prohibition does not apply to the implementation of measures which are necessary to protect or monitor the nest.

From January 15 to July 31 of each year, people and aircraft should not be allowed within 660 feet of the nest. This distance should be increased if topography and/or vegetation permit a direct line-of-sight from the nest to potential activities. This prohibition does not apply to qualified persons conducting necessary eagle research and management.

### Indiana Bat

All known roost trees on the ANF will be protected until such time as they no longer serve as a roost (e.g., loss of exfoliating bark or cavities, blown down, or decay). In the event that it becomes absolutely necessary to remove a known Indiana bat roost tree, such a removal will be conducted through consultation with FWS, during the time period when the bats are likely to be in hibernation (November 15 through March 31). Trees identified as immediate threats to public safety may, however, be removed at any time following consultation with the FWS.

Demolition or removal of buildings or other man-made structures that harbor bats should occur while bats are hibernating. If public safety is threatened and the building must be removed while bats are present, a bat expert should examine the building to determine if Indiana bats are present.

Manage selected permanent openings in desirable vegetation types to provide habitat for the Henslow's sparrow, bobolink, grasshopper sparrow, and bluebird.

New roads, trails, recreation facilities and other developments will be located to avoid the following:

- Rock ledge areas suitable for raven nesting sites
- Rocky areas on southern and southeastern exposures suitable for snake dens
- Caves or rock outcrops with crevices suitable as hibernaculum for the Keen's little brown bat and silver-haired bat.

### Small-whorled Pogonia

Field surveys will be conducted to determine the presence of small-whorled pogonia populations when road construction, logging, herbicide treatment, trail construction, recreation site development, and oil and gas development are proposed for areas containing suitable habitats for this species.

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## **2800 Minerals and Geology**

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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.

The Forest Service will protect the rights of the federal government, respect private mineral rights, and insure that private mineral owners and operators take reasonable and prudent measures to prevent unnecessary disturbance to the surface.

Forest Service administration of outstanding and reserved mineral rights will be in accordance with deeds, mineral reservations, and state and federal laws.

Actions required of mineral operator by law, mineral reservation, or contracts

At least 60 days in advance of proposed development, the developer will provide the Forest Service with written notification of planned activities. The advanced notification will contain the following:

1. Proof of Ownership
2. Designated Field Representative
3. A map showing the locations and dimensions of all facilities
4. Plan of Operation, including drilling and construction schedules
5. Erosion and Sedimentation Control Plan
6. State Drilling Permit

In addition to the above items, the operator must comply with the following:

- All abandoned wells will be plugged, according to state law
- Roads will be gated and will be used only for oil and gas production and Forest Service administration
- All merchantable timber will be sold by contract, with timber marked by the Forest Service and paid for prior to cutting. Slash from clearing roads, well sites, and other areas will be kept out of springs, seeps, and streams. Timber should not be skidded across streams
- Unused pipelines, tanks, well jacks, and other miscellaneous equipment will be removed from National Forest land
- Special use permits will be required for any facilities which cross the mineral estate of a different mineral owner or separately created mineral estates
- Use of Forest Roads will require a Road-Use Permit, with payment of maintenance fees.

### **Actions negotiated with mineral operators**

The Forest Service works cooperatively with oil and gas developers to mitigate adverse impacts on surface resources.

Standards and Guidelines in 2500, Water and Soil Management, are used to mitigate effects on water quality and soil productivity. The following recommendations and guidelines are routinely used by the oil and gas operators to reduce the impact of developments on other surface resources:

- The road system will be located and designed to minimize environmental and visual impacts.
- Road surfacing, including stoning and use of geotextiles, will be required as needed.
- The grade of permanent roads will be between two and eight percent, with grades up to 15 percent acceptable on short pitches of 200 feet or less.
- Right-of-way clearings will avoid den and unique mast producing trees wherever possible.
- Road rights-of-way clearings will be limited to the minimum width necessary to safely carry the anticipated traffic.
- All pipelines and electric lines should be buried a minimum of 36 inches deep. All utility lines, whether buried or on the surface, should follow road rights-of-way wherever possible to minimize conflict with surface management activities and to protect the lines.
- Automatic pump jacks should have warning signs to alert the public to machinery hazards. Storage tanks should have warning signs to restrict open flames near flammable materials.
- Pump jacks and storage tank installations should be designed to blend with the natural environment.

Additional guidelines are developed for resource conditions on specific sites during the cooperative planning of development projects.

### **Compliance with regulatory requirements of other agencies**

Oil and gas operators must comply with applicable state and federal laws and regulations governing oil and gas operations. The Forest Service will work cooperatively with U. S. Environmental Protection Agency, Pennsylvania Department of Environmental Resources, and other concerned agencies to ensure such compliance.

### **Mineral Materials (stone and gravel)**

Use of construction mineral sources (pits and quarries) should conform to an Implementation Plan prepared for each source.

On all contracts, permits, and other uses, the user should have an operating plan for the production of a given quantity of mineral materials. The operating plan will conform to the long-term Implementation Plan for the designated source.

The ranking for allocations of rock from National Forest lands will be (1) for Forest roads and trails and for exercise of valid private minerals rights on National Forest land; (2) to federal, state, counties, and municipalities for off-Forest use; and (3) to a private corporation, organization, or individual for off-Forest use.

### **Ground Water**

Protection of the ground water from oil, gas, and brine pollution will be a top priority in the administration of both federal and private oil and gas developments. All project planning, including environmental analysis as applicable, will consider potential impacts on ground water and preventive measures.

The Forest Service will request state review of well hole construction and completion plans and practices through Preparedness, Prevention, and Contingency Plans and by other appropriate means.

The Forest Service will encourage oil/gas developers to use the best available technology in well hole construction, completion, and production operations to protect ground water.

All injection wells will be permitted under the Underground Injection Control section of the Federal Safe Drinking Water Act.

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## **7700 Transportation System**

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When planning the road system, if the management area objectives and the environmental constraints can be met, take advantage of existing road corridors in order to minimize additional land clearing.

Use on any Forest Service administered road can be restricted for structural reasons or for protection during spring breakup.

Roads under the jurisdiction of an oil and gas operator are not open to public traffic, unless a formal written agreement is reached between the OGM operator and the Forest Service for this use. The only uses allowed on oil and gas roads, without the agreement specified above, are administrative traffic by the oil and gas operator and the Forest Service.

Unlicensed ORV's can only be used on closed roads designated for ORV use only.