

## Chapter 2

# Forest-wide Direction

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## Introduction

As a strategic management document, a forest plan establishes land allocations as well as goals, desired conditions, objectives, and standards for a national forest. Some direction may apply only to a particular management area of a national forest while other direction pertains forest-wide. This chapter outlines management direction that is to be applied consistently across the entire Wayne National Forest. Direction specific to management areas is covered in Chapter 3.

Management direction is organized around the physical, biological, and social resources of the Forest as well as the major issues identified in coordination with citizens who helped develop this 2006 Forest Plan.

## Goals

Forest Plan goals are broad statements that describe desired characteristics to be achieved or maintained forest-wide or in a specific management area. Whenever specific management area direction is silent regarding a specific resource activity, the forest-wide direction applies. Forest Service planning rules defines a goal as “a concise statement that describes a desired condition to be achieved sometime in the future. It is normally expressed in broad, general terms and is timeless in that it has no specific date by which it is to be completed. Goal statements form the principal basis from which objectives are developed”. (36 CFR 219.3<sup>1</sup>) Goals also reflect the agency’s national strategic plan, helping tie Forest Plan goals to national goals. While projects undertaken by the Forest Service will strive to attain national and Forest Plan goals, goals may not be fully realized during the life of a forest plan.

## Objectives

For purposes of forest planning, an objective is defined as “a concise, time-specific statement of measurable planned results that respond to pre-established goals. An objective forms the basis for further planning to define the precise steps to be taken and the resources to be used in achieving identified goals”. (36 CFR 219.3<sup>1</sup>)

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<sup>1</sup> 1982 Planning Regulations. See Chapter 1, page 1-3, Forest Service Planning Rules

Attainment of objectives can reasonably be expected during the 10 to 15 year life of a forest plan. Their progress can be measured, monitored, and evaluated. Not all goals require a quantifiable objective however.

## Standards and Guidelines

While goals and objectives define what condition is envisioned, standards and guidelines are rules to be followed in getting there. Standards or guidelines often preclude, or impose limitations on, management activities or resource uses, generally for environmental protection or public safety. Compliance with standards is mandatory. A forest plan amendment is required to make an exception to a standard. To make an exception to a guideline, the rationale must be disclosed in the project decision documents. Compliance with standards and guidelines, and progress in accomplishing objectives, will be monitored (see Chapter 4 - Monitoring and Evaluation).

Both standards and guidelines are listed together with a unified numbering system. Forest-wide standards begin with the prefix SFW, while Forest-wide guidelines begin with GFW. The first three-letter prefix is followed by an abbreviation that indicates the management program involved.

**Table 2 - 1. Program area names and abbreviations.**

Program Area	Abbreviation
General	GEN
Watershed Health	WSH
Aquatic and Riparian Resources	ARR
Wildlife and Plants	WLF
Endangered, Threatened, and Sensitive Species	TES
Vegetation	VEG
Forest Health	FH
Fire Management	FIRE
Air Quality	AIR
Minerals	MIN
Recreation	REC
Scenery Management	SCEN
Heritage	HERT
Land Ownership	LAND
Special Uses	SPEC
Range	RANGE
Facilities and Transportation System	TRANS
Public Health and Safety	SAFE

Numbering restarts with each management program. Standards and guidelines in each numbered section relate generally to the resource heading of the section (e.g., Air Quality, Recreation, etc.); there is no attempt to relate or group the standards and guidelines to specific objectives under each resource section.

### **Other Requirements**

In addition to standards and guidelines found in the Forest Plan, Forest Service activities must adhere to applicable laws, executive orders, and regulations. Government manuals and handbooks are to be followed during site-specific project analysis. New scientific information, on-the-ground conditions, and public attitudes and values should also be considered.

### **Monitoring**

The results of projects and other activities taken to accomplish objectives, including compliance with standards and guidelines, will be evaluated by the Forest's Monitoring Plan.

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## Forest-wide Goals, Objectives, Standards, Guidelines

### 1 – General

#### Goal 1.1 – Collaborate with Partners

Work with our partners – the public, local communities, non-profit non-governmental organizations, the private sector, and other public agencies – in a collaborative effort to promote education, scientific study of Forest resources, safety, conservation, sustainable ecological management practices, and local community economic development and sustainability.

#### Goal 1.2 – Safety

Emphasize public and employee safety as a fundamental agency value in all work activities and facilities.

### 2 – Watershed Health

#### Goal 2.1 – Maintain/restore water quality and soil productivity

Restore water quality and soil productivity to improve health of watersheds impaired by past land use practices and mining activities. Manage activities on NFS land to maintain or enhance water quality and soil productivity.

**Objective 2.1a** – Restore the dimension, pattern, and profile of streams where channel and floodplain morphology has been altered.

**Objective 2.1b** – Enhance water quality in the Monday Creek, Sunday Creek, Raccoon Creek, Symmes Creek, and Pine Creek watersheds by reducing acid mine discharges and decreasing sediment loads.

**Objective 2.1c** – Restore positive drainage in watersheds where surface runoff is restricted topographically and drains into underground mine complexes.

#### Standards/Guidelines for Watershed Health

##### General

**GFW-WSH-1:** Water should not be diverted from streams, lakes, or springs when in-stream flow needs or water-level assessments indicate that diversion would adversely affect stream processes, aquatic and riparian habitats and communities, or recreation and aesthetic values.

**GFW-WSH-2:** Sewage lagoons, disposal plants, or landfills should not be constructed in floodplains.

**GFW-WSH-3:** When conducting watershed restoration or improvement projects, give priority to:

- Watersheds with higher percentages of NFS land
- Watersheds with existing aquatic life or suitable habitat conditions
- Watersheds with potential for partnership opportunities
- Watersheds that present a health and safety concern.

**GFW-WSH-4:** Favor watershed restoration/improvement project design that requires minimal or no maintenance.

**GFW-WSH-5:** For activities affecting streams, consider natural channel design principles to restore channel morphology.

### **Managing Disturbed Areas**

**SFW-WSH-6:** Ensure that seed mixes or cultivated plants used to restore disturbed areas on NFS land contain no species on the Forest's Non-native Invasive Species (NNIS) list or NNIS species identified by the State of Ohio or its neighboring states to the east and south (i.e., Kentucky, Pennsylvania, and West Virginia).

**GFW-WSH-7:** When restoring disturbed areas, prevent non-native invasive plant invasion or spread by utilizing the following measures:

- Use weed-free mulch when feasible
- Allow natural re-vegetation for small-sized disturbances (e.g., utility rights-of-way, firelines), where the threat of erosion or sedimentation and NNIS spread is limited.
- When seeding is necessary to accomplish re-vegetation, prioritize the composition of the seed mix as follows:
  - Native species with local genotypes (locally adapted)
  - Native species with non-local genotypes (not locally adapted)
  - Desirable non-native species that are non-aggressive and non-persistent (annuals).
  - Encourage the use of locally grown/adapted native plant materials.

**GFW-WSH-8:** When stabilizing disturbed areas, give priority to stabilizing areas that are discharging soil into watercourses, especially in municipal and recreational impoundment watersheds. Techniques may include:

- Placing straw bales in ditch lines and small drainages
- Leaving berms in road embankments during construction
- Constructing diversion ditches
- Hand placing slash and unmerchantable logs across slopes and trails
- Installing check dams and ditch lines
- Excavating sediment detention basins.

### **Old Water Wells and Cisterns**

**GFW-WSH-9:** Old water wells and cisterns should be filled or plugged, while protecting historical values and wildlife habitat.

### **Soil Resources**

**GFW-WSH-10:** Modify resource management practices according to soil characteristics and slope to protect soil productivity and minimize erosion and sedimentation. Refer to soil map unit descriptions and appropriate interpretive tables in the Wayne National Forest Soils Inventory (based on the USDA County Soil Surveys).

**GFW-WSH-11:** Plan and implement erosion control measures for management activities that create bare mineral soil conditions. Stabilize disturbed areas based on direction in SFW-WSH-6, and GFW-WSH 7 and GFW-WSH-8.

### **Reclamation of Abandoned Mine Land**

**GFW-WSH-12:** Seed wildlife openings with a mixture of native or desired non-native grasses, legumes, and shrubs for wildlife habitat and erosion control.

**SFW-WSH-13:** If waterholes and other impoundments with suitable water quality for aquatic organisms are destroyed by mining operations, they are to be replaced with equal or larger-sized impoundments.

**GFW-WSH-14:** Coordinate construction of reclamation impoundments with the Ohio Division of Mineral Resource Management. Require Forest Service approval of reclamation-type dams larger than 6 feet in height or

10 acre-feet of impoundment. Whenever possible, design impoundments with irregular shorelines, peninsulas, and/or islands. Encourage the placement of some large boulders in lakes and ponds and on their shorelines to provide fish and wildlife cover and enhance aesthetic qualities.

**GFW-WSH-15:** Use a variety of native or desired non-native tree species, including major mast-producing species, when trees are planted for reclamation.

**GFW-WSH-16:** Leave mining features, such as high-wall cliffs or banks or open mine portals if they are providing, or have the potential to provide, special wildlife habitat features (e.g., bat roosting or bird nesting sites), where such features are consistent with public safety and overall reclamation objectives.

### 3 – Aquatic and Riparian Resources

#### Goal 3.1 – Sustain favorable riparian and aquatic habitat conditions

Promote healthy riparian and aquatic ecosystems that sustain ecological processes and functions and a variety of plant and animal communities, including viable populations of native and desired non-native species.

**Objective 3.1a** – Restore wetland habitat where wetland hydrology, soils, or vegetation have been modified by past land uses.

**Objective 3.1b** – Improve habitat along streams for aquatic and riparian-dependent species.

**Objective 3.1c** – Reduce sedimentation and improve passage for aquatic and semi-aquatic organisms at Forest development roads and Forest Service recreation trail crossings.

**Objective 3.1d** – Improve aquatic habitat in ponds and lakes.

#### Standards/Guidelines for Riparian Corridors

##### General

**GFW-ARR-1:** Prior to implementing any project activity, establish the site-specific boundaries of the riparian corridor. The riparian corridor includes the riparian area and upland areas within the flood-prone area, or 100 feet from the edge of the aquatic ecosystem or wetland, whichever is greater.

**GFW-ARR-2:** Manage the riparian corridor to maintain habitat diversity for aquatic and riparian-dependent species; management strategies may include:

- Maintaining water temperatures within prescribed ranges for native aquatic and semi-aquatic species
- Promoting recruitment of large woody debris
- Producing nutrients and organic matter for the aquatic ecosystem
- Promoting natural streambanks
- Maintaining or restoring habitat diversity for aquatic and riparian-dependent species

**GFW-ARR-3:** Resolve land use conflicts in favor of riparian-dependent resources.

**GFW-ARR-4:** Where possible, do not construct new facilities (such as roads, trails, campsites, and buildings) within riparian areas. Where such

facilities must be located in riparian areas, construct and maintain them to minimize adverse impacts to ecological function.

### **Filterstrips**

**GFW-ARR-5:** Where earth-disturbing activities expose mineral soil, establish filterstrips along water bodies.

- Filterstrip width along perennial water bodies should be a minimum of 100 feet, measured horizontally from the edge of the aquatic ecosystem.
- Filterstrip width along intermittent streams should be a minimum of 75 feet, measured horizontally from the edge of the aquatic ecosystem.
- Filterstrip width along ephemeral water bodies should be a minimum of 50 feet, measured horizontally from the edge of the aquatic ecosystem.

**GFW-ARR-6:** Earth-disturbing activities that expose mineral soil may occur within the filterstrip only if effective sediment control measures that minimize and/or mitigate any detrimental effects are employed.

### **Road Stream Crossings**

**SFW-ARR-7:** Design mitigation measures (e.g., sizing culverts to match the drainage area) into crossings of perennial, intermittent, or ephemeral streams to meet site-specific needs.

**GFW-ARR-8:** Design stream crossings to be at right angles.

**GFW-ARR-9:** Design and construct new permanent stream crossings (ephemeral, intermittent, and perennial streams) to maintain upstream and downstream passage of aquatic and semi-aquatic organisms.

**SFW-ARR-10:** Do not allow roads, trails, or log skidding within streambeds except at designated crossings.

**SFW-ARR-11:** If stream crossings are removed, restore banks and channel to a natural dimension and shape.

**GFW-ARR-12:** Improve existing crossings to ensure passage of aquatic organisms when maintenance and reconstruction activities are scheduled.

### **Oil/Gas Pipeline Stream Crossings**

**SFW-ARR-13:** Pipelines of nine-inch diameter or larger that cross streams on NFS land must be reviewed by the Ohio Public Utilities Commission and the Federal Energy Regulatory Commission.

**GWF-ARR-14:** Avoid the use of heavy equipment in flowing streams. Alternatives may include concentric pipe (double pipe) and plowing.

**GWF-ARR-15:** Encourage the location of pipelines at existing bridges.

**GWF-ARR-16:** When a pipeline crosses a stream on NFS land, the following should apply:

- Encourage the use of boring to locate pipeline crossings beneath Forest streams where topography, soil, and stream bottom conditions permit.
- Stabilize disturbed soil and protect streamside banks as work progresses.

**SWF-ARR-17:** Require appropriate technology on all pipelines that cross streams so that supply and flow can be shut off upon detection of a leak.

### **Removal of Materials from Streams**

**GFW-ARR-18:** Prohibit removal of sand, gravel, or other materials from streams except for:

- Excavation of deep holes in stream channels to improve fisheries or other wildlife habitat
- Incidental excavation operations for culverts, bridges, fords, dams, or other new or existing facilities
- Restoration to a more natural or stable stream channel that has been filled by sediment from strip mines or other land disturbing activities
- Removal of materials from sediment basins that have been installed to trap sediment flowing from upstream activity
- Administrative use.

**GFW-ARR-19:** Allow modification or removal of beaver dams only to:

- Open passage for sensitive aquatic organisms
- Meet objectives for fish habitat management
- Protect ecologically sensitive areas
- Reduce effects of flooding on improvements
- Reduce impacts to private property.

**SFW-ARR-20:** When removing beaver dams or other channel obstructions from streams, control hydrologic discharge to minimize the potential for downstream flooding, sedimentation, and associated impacts to channel morphology and habitat.

**GFW-ARR-21:** Do not leave logging debris in stream channels unless planned to benefit aquatic and/or riparian-dependent resources.

**GFW-ARR-22:** Remove large woody debris from streams only if it poses a risk to water quality, degrades habitat for aquatic or riparian-dependent species, impedes recreational watercraft, or when it poses a threat to private property or infrastructure. Where it impedes passage for recreational watercraft, restrict removal to the minimum amount necessary for safe passage.

### **Wetlands**

**GFW-ARR-23:** Avoid adverse impacts to ephemeral wetlands during ground-disturbing activities.

**GFW-ARR-24:** Maintain existing wetland levees and outlet works to minimize erosion and ensure continued functioning of wetland facilities.

**GFW-ARR-25:** Enhancement of wetland habitat may occur to enhance local biodiversity. Wetland construction should not occur on existing wetlands unless the added values of construction outweigh the biodiversity values of the existing wetland.

**GFW-ARR-26:** Incorporate water level controls when enhancing wetland habitat. Incorporate islands and peninsulas into wetland design.

**GFW-ARR-27:** Incorporate existing wildlife cover into the design of wetland enhancement project. Examples include vegetation on shorelines and within wetland pool areas; large living and dead trees and brushland near shorelines, on islands, and within pool areas; and emergent brush piles, logs, or limbs.

**GFW-ARR-28:** Water levels in wetlands may be manipulated periodically to manage for a variety of native aquatic plants and to eliminate fish populations.

### **Springs**

**GFW-ARR-29:** Prohibit vegetation management or ground disturbing activities within 100 feet of perennial springs, unless the activity is designed to protect water quality of the spring or integrity of the surrounding area.

### **Ponds and Lakes**

**GFW-ARR-30:** Use natural materials (e.g., brush piles, rock reefs, shoreline tree drops) in projects to enhance habitat complexity of ponds and lakes.

**GFW-ARR-31:** Maintain integrity of pond and lake dams by removing woody vegetation using methods appropriate to the site such as cutting, mowing, prescribed fire, and spot treatment with herbicides.

**GFW-ARR-32:** Consider the following when constructing new impoundments:

- Size of small lakes generally range from 2 to 25 surface acres; 5 acres or larger is preferred.
- As a general rule, the entire watershed of a prospective fishing impoundment and the lands needed for access and to protect aesthetic quality of lake surroundings, including mineral rights, should be in National Forest ownership before the impoundment is constructed. Exceptions may be made where activities on other lands are not expected to have unacceptable adverse effects on water and recreation qualities.
- Small lakes should be developed and managed to provide quality fishing experiences and a highly productive aquatic habitat.
- Creation of fishing impoundments in conjunction with borrow pits and fills made in road construction, strip mining sites, and other activities.
- Ability to draw a lake down to a small pool should be incorporated in the design.
- Islands and peninsulas should be created whenever possible.
- Retention and placement of emergent and submerged covers, such as standing trees and brush piles, should be jointly planned prior to lake construction.
- When streams capable of supporting fish are impounded, conduct a pre-impoundment fisheries survey. If necessary, undesirable fish may be eradicated.

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## 4 – Wildlife and Plants

### Goal 4.1 – Sustain Favorable Terrestrial Habitat Conditions

Promote healthy terrestrial ecosystems that sustain a variety of plant and animal communities, including viable populations of native and desired non-native species.

**Objective 4.1a** – Provide adequate habitat to support viable populations of Management Indicator Species. (See Table 2 - 2)

**Objective 4.1b** – Promote restoration and maintenance of the oak-hickory ecosystem by improving conditions for oak regeneration in the HF and HFO Management Areas.

**Objective 4.1c** – Encourage the establishment of all-aged hardwood forest and hardwood-pine forest communities with structurally diverse canopy layers to maintain forest health and increase structural diversity.

**Objective 4.1d** – Create early successional hardwood or hardwood-pine habitat, interspersed within mid- and late-successional forest habitat to:

- Provide breeding habit for shrubland-dependent species
- Increase production of wildlife foods such as soft and hard mast and insects.

**Objective 4.1e** – Regenerate existing native pine and pine-hardwood mixed communities.

**Objective 4.1f** – Annually, improve or maintain 5 to 10 percent of the existing grassland and grassland/shrubland habitat acreage in the Grassland Management Area.

**Objective 4.1g** – Establish and maintain permanent forest openings (herbaceous vegetative cover or mix of herbaceous vegetation and shrubs) on a variety of sites, including ridge tops, mid-slope benches and valley bottoms, preferably where access by machinery is possible.

**Objective 4.1h** – Construct waterholes and ephemeral wetlands to supplement limited water sources, enhance local biodiversity, and enhance aquatic insect production.

**Objective 4.1i** – Install artificial nesting or roosting structures to supplement natural cavities or snags when they are short in supply or to enhance wildlife-viewing.

**Table 2 - 2. Management Indicator Species and Habitats**

Species/Habitat	General Habitat Description	Related Objective(s) or Goal	Related Management Area Prescription*
<b>Mixed-oak Forest</b>	Forest stands dominated by oak and hickory species	4.1b, 4.1d	HF, HFO, FSM, FSMO
<b>Early Successional Hardwood Forest</b>	Hardwood stands under 20 years of age	4.1d	FSM, FSMO
<b>Pileated Woodpecker</b>	Mature to overmature hardwood forest with snags and coarse woody debris on the forest floor	4.1b, 4.1c	DCF, DCFO, FOF, FOFM, HF, HFO
<b>Cerulean Warbler</b>	Open to semi-open mature mixed oak forest, with a heterogeneous canopy layer	4.1b, 4.1c	DCF, DCFO, HF, HFO, FOF, FOFM
<b>Worm-eating Warbler</b>	Hardwood and pine-hardwood forest on hillsides, with a dense understory and coarse woody debris on the forest floor	4.1c	DCF, DCFO, FOF, FOFM
<b>Louisiana Waterthrush</b>	Riparian corridors along headwater streams	4.1c, 3.1, 3.1b, 3.1c	DCF, DCFO, FOF, FOFM, RC
<b>Pine Warbler and Native Pine Forest</b>	Pine and pine-hardwood forest	4.1c, 4.1e	FSM, FSMO, DCF, DCFO, HF, HFO
<b>Ruffed Grouse</b>	Mosaic of early- mid- and late-successional hardwood forest	4.1b, 4.1d	FSM, FSMO, HF, HFO, GFM
<b>Yellow-breasted Chat</b>	Early successional forest habitat	4.1d	FSM, FSMO, GFM
<b>Henslow's Sparrow</b>	Extensive grasslands on reclaimed mine lands	4.1f	GFM

\* Management areas and their acronyms are listed in Chapter 3.

## Standards/Guidelines for Terrestrial Wildlife and Plants

### General

**GFW-WLF-1:** Develop and maintain mast-producing stands on a variety of sites, including lowlands, mid-slopes, and ridge-tops.

**GFW-WLF-2:** When using prescribed fire as a management tool, encourage mosaic pattern burning.

### Permanent Forest Openings

**GFW-WLF-3:** When considering the need for permanent openings, take into account similar habitat provided by ephemeral openings (e.g.,

resulting from even-aged regeneration harvests, group selections), large grasslands in the Grassland Forest Mosaic Management Area, prairie remnants and barrens, and utility rights-of-way.

**GFW-WLF-4:** Coordinate with utility companies, when possible, to manage utility corridors by selective treatment of vegetation or by appropriate mowing regimes to provide quality permanent opening habitat.

**GFW-WLF-5:** Give high priority to developing permanent forest openings on old fields and homesites. Emphasize maintaining clusters of openings near the edges of large tracts of continuous forest cover rather than scattered throughout the large tract.

**GFW-WLF-6:** When oil and gas well developments meet, or can be made to meet, the objectives of permanent forest openings, designate them accordingly so they may also contribute to herbaceous habitat objectives.

**GFW-WLF-7:** Permanent forest openings should be larger than one acre in size, unless necessary to meet the needs of a site-specific species.

**GFW-WLF-8:** Conduct permanent forest opening maintenance (mowing) during early fall (October and November) to minimize disturbance to flowering plants and nesting birds, unless early spring mowing is necessary to maintain suitable habitat for summer-flowering species.

**SFW-WLF-9:** Use rotational maintenance regimes when mowing permanent forest openings to ensure adequate habitat is available for herbaceous/shrub mix-dependent species.

**GFW-WLF-10:** When using prescribed fire to maintain or improve habitat in permanent openings for site-specific plant or animal species, burn only part of the area annually to avoid extirpation of localized populations.

**GFW-WLF-11:** In conjunction with opening development and maintenance, retain existing snags and create additional ones, unless they pose a safety hazard.

**GFW-WLF-12:** Manage approximately half of each opening as a shrubby edge or thicket where possible. Retain a variety of native shrubs and small growing trees. Shrub thickets should be scattered in irregular clumps or on the periphery of openings.

**GFW-WLF-13:** Develop and maintain approximately half of each forest opening in openland cover of native forbs and grasses. Avoid monotypic stands of legumes, fescue or other dense, domesticated grasses in permanent openings. Plant annual, non-invasive species in some openings to benefit certain species.

### Large Woody Debris

**GFW-WLF-14:** Place cover logs or brush piles in forest stands in conjunction with timber harvest and other activities involving tree felling. Edges of woodlands, brushland, and openland cover, especially near water and wetlands, are preferred sites for brush piles. Leave unused logs on the ground for various wildlife species. To reduce fire hazard and protect visual quality, do not leave large woody debris immediately adjacent to roads, trails open to motorized travel, railroad rights-of-way, or near buildings.

### Upland Waterholes

**GFW-WLF-15:** Prohibit stocking of fish in waterholes.

**GFW-WLF-16:** Design, construction, and maintenance of waterholes and ephemeral wetlands should consider the following:

- Size may vary, but should generally be 0.1 to 0.25 acres in size.
- Locate where the watershed ratio does not exceed 5:1 (generally on ridges or upper slopes). The slope of the fill should be 5:1 on both the water and the back sides. After settling, freeboard should be approximately 6 inches above a seeded or sodded spillway.
- Portions of waterholes should have a minimum depth of at least 3 feet to maintain some permanent water during dry periods of the year; 12 inch depth for ephemeral wetlands.

## 5 - Endangered, Threatened and Sensitive Species

### Goal 5.1 – Recover Federally Listed Threatened and Endangered species

**Goal 5.1.1** – Retain or develop Indiana bat roosting and foraging habitat; protect all known Indiana bat hibernacula.

**Objective 5.1.1a** – If additional Indiana bat hibernacula are discovered on NFS land, install bat-friendly gates to prevent unauthorized entry.

**Goal 5.1.2 and Objective 5.1.2a** – (Moved under Goal 5.2 due to de-listing of Bald Eagle; see Note 1 on page 2-24).<sup>1</sup>

**Goal 5.1.3** – Cooperate in efforts to reintroduce the American burying beetle.

**Goal 5.1.4** – Actively manage known populations of running buffalo clover to maintain appropriate habitat conditions.

**Objective 5.1.4a** – Maintain partial to filtered sunlight over and adjacent to occupied running buffalo clover habitat.

**Objective 5.1.4b** – Conduct annual monitoring of known running buffalo clover populations and adjacent areas to identify potential risks or management needs.

### Goal 5.2 – Conserve Regional Forester Sensitive Species

Promote conservation activities that protect, restore, or enhance habitat for Regional Forester sensitive species.

**Goal 5.2.1** – Protect bald eagle communal night roosts, daytime concentration sites, and occupied breeding territories.<sup>1</sup>

**Objective 5.2.1a** – Conduct a minimum of three annual winter searches to locate any previously unknown communal night roosts or bald eagle concentrations.<sup>1</sup>

### Standards / Guidelines for Threatened, Endangered, and Sensitive Species (See also Appendix D.)

#### Federally Listed Species

#### Indiana Bat Hibernacula

**SFW-TES-1:** Deter human access to areas surrounding known hibernacula by closing or relocating trails that lead to, or pass within, easy viewing distance of hibernacula.

**SFW-TES-2:** Establish a one-quarter mile buffer around all known hibernacula. Within this one-quarter mile buffer:

- Prohibit new trail and road construction.
- Do not conduct prescribed burning during the fall swarming period (generally mid-August to mid-October) or during the hibernation period (September 15 through April 15).

<sup>1</sup> Goal and Objective for Bald eagle changed 10/16/2008 by Administrative Correction # 3.

- Do not conduct prescribed burning during the fall swarming period (generally mid-August to mid-October) or during the hibernation period (September 15 through April 15).
- Do not permit surface occupancy for exploration or development of Federally owned minerals.
- Implement vegetation management only to maintain or improve Indiana bat roosting, swarming, or foraging habitat.

**GFW-TES-3:** Establish a one quarter-mile forested buffer around all mine openings that are known Indiana bat fall swarming sites, but where actual Indiana bat hibernation has not been established. Reduce or eliminate human disturbances within the buffer. Implement vegetation management only to maintain or improve Indiana bat roosting, swarming, or foraging habitat.

**SFW-TES-4:** Develop prescribed burning plans that specify weather conditions that would prevent smoke dispersal into known hibernacula.

**SFW-TES-5:** Before backfilling any mine openings, such as portal entrances or subsidence depressions with developed openings, conduct surveys for potential bat presence during the fall swarming period (generally mid-August to mid-October).

**GFW-TES-6:** Conduct pre-gating and post-gating mist net surveys at mines where bat-friendly gates are installed.

### **Indiana Bat Roosting and Foraging Habitat**

**SFW-TES-7:** When even-aged regeneration methods are used, retain forested flight corridors within and between early successional habitat patches. These flight corridors may include forested corridors along ephemeral, intermittent, and perennial streams (see GFW-ARR-2); and where present, clumps of snags and trees of varying size classes in the early successional habitat. When present, leave larger-sized trees on the edges of early successional patches for future maternity roosts.

**SFW-TES-8:** Within hardwood cutting units with uneven-aged vegetation management prescriptions, maintain an average of at least 60 percent canopy cover.

**GFW-TES-9:** Retain all shagbark and shellbark hickory trees  $\geq 6$  inches dbh, unless removal is necessary to protect human safety or to avoid adverse impacts to steep slopes, erodible soils, floodplains or wetlands.

**SFW-TES-10:** During the non-hibernation season (April 15th-September 15th), do not cut, unless they are a safety hazard:

- Trees of any species 6 inches dbh or more that are hollow, have major splits, or have broken tops that provide maternity habitat.

**SFW-TES-11:** Schedule any summer prescribed burning after August 15 to reduce potential effects on Indiana bat reproduction.

**SFW-TES-12:** With all hardwood timber harvests, retain a minimum of 12 live trees per acre (averaged over the cutting unit) of any species that are six inches or more dbh with large areas of loose bark, unless they pose a safety hazard.

In addition to these, retain live preferred roost trees, when present, to provide a supply of future roost trees (i.e., large, overmature trees). See Appendix D for list of tree species preferred as roost trees by Indiana bats. See Table 2-3 for preferred tree sizes. Consult with U. S. Fish and Wildlife Service regarding exceptions that may be needed to minimize adverse effects to other resources or human health and safety.

**Table 2 - 1. Indiana Bat Preferred Roost Tree Size Class.**

Indiana Bat Preferred Roost Tree Size Class	Number of live trees to retain (number per acre averaged across the cutting unit)
>20 in (dbh)	3*
>11 in (dbh) and < 20 in (dbh)	6

\*If there are few or no live Indiana bat roost trees > 20 inches dbh in the stand, retain three live trees >16 inches dbh and < 20 inches dbh per acre (averaged across the cutting unit). If there are no live trees > 16 inches dbh, retain nine additional live trees > 11 inches dbh and < 16 inches dbh per acre (averaged across the cutting unit).

**SFW-TES-13:** Prohibit the cutting of standing dead trees for firewood.

**GFW-TES-14:** Provide water sources that promote aquatic insect production and provide drinking sources for Indiana bats along suitable flight paths, especially in upland areas, and off/away from recreation sites, and designated trails and roads.

### **Bald Eagle Management**

**SFW-TES-15 - 20:** Moved to SFW- TES-37 – 42 due to delisting of Bald Eagle; see Note 1 on page 2-24. <sup>2</sup>

### **American Burying Beetle (ABB)**

**GFW-TES-21:** Discourage use of bug zappers by campers in dispersed and developed recreation sites within 10 air miles of known occupied ABB habitat.

**GFW-TES-22:** Limit ground compaction to the minimum area possible during major earth disturbing activities (including, but not limited to new road and trail construction, mineral resource exploration and development, or new facilities) that occur in suitable ABB habitat within 10 air miles of known occupied ABB habitat.

<sup>2</sup> Changed 10/16/2008 by Administrative Correction # 3

**GFW-TES-22:** Limit ground compaction to the minimum area possible during major earth disturbing activities (including, but not limited to new road and trail construction, mineral resource exploration and development, or new facilities) that occur in suitable ABB habitat within 10 air miles of known occupied ABB habitat.

**GFW-TES-23:** During the ABB activity period, use bait-away methods prior to and during the implementation of major earth disturbing activities that occur in known occupied ABB habitat.

**GFW-TES-24:** In occupied ABB habitat, design new roads with the minimum safe width necessary for planned use of the road.

**GFW-TES-25:** Within 10 air miles of known occupied ABB habitat, keep ground disturbance to a minimum during the reconstruction and maintenance of existing roads. Limit width of road, ditches, and surface materials to the minimum necessary for the planned use.

**GFW-TES-26:** Restrict the use of insecticides within known occupied ABB habitat.

### **Running Buffalo Clover (RBC)**

**SFW-TES-27:** Implement measures to protect RBC populations during prescribed fire activities. These may include, but are not limited to wetting down the occupied area, raking off fuels from the occupied area, or constructing firelines around the occupied area.

**SFW-TES-28:** Avoid mechanical construction of firelines in known occupied RBC habitat. Mechanical fireline construction adjacent to known RBC populations must maintain appropriate light conditions in known occupied habitat.

**GFW-TES-29:** Restrict the application of herbicides within 25 feet of known RBC populations.

**SFW-TES-30:** Protect and maintain known RBC populations during road and trail construction, reconstruction, and maintenance by locating ground disturbance outside the occupied habitat. The appropriate light conditions must be maintained in the occupied habitat during such activities.

**GFW-TES-31:** Conduct surveys for running buffalo clover in suitable habitat prior to implementing ground or canopy disturbing activities.

### **Regional Forester Sensitive Species**

**SFW-TES-32** Protect and improve occupied Regional Forester sensitive species habitat.

**SFW-TES-33:** Do not conduct vegetation management within a 50-foot radius of rock shelters, or within 50 feet of the base and 50 feet of the top (measured horizontally) of naturally occurring, large rock faces or outcrops, unless designed to enhance the site characteristics for a Federally listed species or a known population of Regional Forester sensitive species. Large rock faces or outcrops are defined as rock outcrop areas 15 feet or more in height and 100 feet or more in length. These rock outcrop habitats are not limited to solid “cliffs” and may include discontinuous rock faces, if the outcrop area is predominantly rock faces.

**SFW-TES-34:** Avoid vegetation management within 50 feet of the base and 50 feet of the top of smaller rock faces (approximately 15 feet or more in height and less than 100 feet in length).

**SFW-TES-35:** Do not permit collection of Regional Forester sensitive plant or animal species, except for scientific or educational purposes. Require a permit for such collecting.

**GFW-TES-36:** Localized removal of vegetation to reduce woody encroachment (e.g., mowing, brush removal in the understory, selective thinning of the overstory, or grazing) may be used to maintain or improve habitat for Regional Forester sensitive species.

### **Bald Eagle Management**

**SFW-TES-37:** Focus winter bald eagle searches in areas that eagles are known to frequent or where concentrated food sources occur near NFS land. Conduct searches during early-, mid-, and late-winter. Follow search criteria outlined in the Northern States Bald Eagle Recovery Plan.

**SFW-TES-38:** Protect any bald eagle communal night roosts and concentrations (including nests) discovered during winter surveys or during any additional field surveys of proposed project areas, following guidelines outlined in the Northern States Bald Eagle Recovery Plan.

**SFW-TES-39:** Report discovery of bald eagle nests immediately to the U. S. Fish and Wildlife Service (Reynoldsburg Field Office) and the Ohio Department of Natural Resources, Division of Wildlife.

**SFW-TES-40:** Protect super-canopy trees, or other identified congregation roost trees, along major river corridors and lakes in addition to following Forest-wide riparian standards and guidelines.

**SFW-TES-41:** Allow no prescribed fire within one-half mile of occupied bald eagle sites. Consider all bald eagle communal night roosts, daytime concentration sites, or occupied breeding territories as occupied sites. To prevent smoke inversion from occurring at occupied bald eagle sites, and to minimize smoke drifting toward them from prescribed fires outside the one-half mile radius of occupied sites, require burn plans to take account of wind direction, speed, and mixing height as well as transport winds.

**SFW-TES-42:** If the bald eagle is found nesting on the Wayne National Forest, monitor populations according to the recovery plan. At such time as the bald eagle is de-listed, use the de-listing monitoring plan.

**Note 1:** On August 8, 2007 the U.S. Fish and Wildlife Service, removed (delisted) the bald eagle (*Haliaeetus leucocephalus*) in the lower 48 States of the United States from the Federal List of Endangered and Threatened Wildlife due to the successful recovery of the species. The bald eagle continues to be protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. These Acts require some measures to continue to prevent bald eagle "take" resulting from human activities. The bald eagle will be on the Regional Forester's Sensitive Species list for at least the next five years (FSM 2670, R9 RO Supplement 2600-2000-1). Because of this, the protections in the 2006 Forest Plan will remain, but be moved from the Threatened and Endangered Species section to the Regional Forester Sensitive Species section of the Plan. (Wayne NF, 2006 Forest Plan Administrative Correction # 3, 9/29/2008)

## 6 – Vegetation

### Goal 6.1 – Meet Habitat Needs

Provide forest vegetation characteristics, from understory layers to the tree canopy, that meet the habitat needs of desired native and non-native plant and animal species. (See Wildlife Habitat Objectives 4.1a through 4.1g.)<sup>1</sup>

**Objective 6.1a** - Use all available silvicultural treatments, including pre-commercial and commercial thinning, regeneration harvesting, prescribed fire, shelterwood harvests, site preparation, and improvement cutting to promote the maintenance and restoration of the oak-hickory ecosystem.

**Objective 6.1b** - Use commercial timber sales and stewardship contracts to accomplish wildlife habitat objectives.

### Goal 6.2 – Improve Fire Regime Condition Class

Reintroduce fire into fire-adapted ecosystems to conserve biodiversity and promote ecosystem structure and function closer to the historic range of variability.

**Objective 6.2a** – Use prescribed fire to conserve fire-adapted plant and animal biodiversity and to maintain and restore mixed oak and native pine ecosystems.

**Objective 6.2b** – Use prescribed fire and mechanical treatments to modify current fuel composition, and fire frequency, severity and pattern.

**Objective 6.2c** – Use prescribed fire and mechanical treatments to maintain a current fire regime condition class that represents the historic range of variability.

### Goal 6.3 – Special Forest Products

Provide opportunities for the collection and use of special forest products. Manage removal of special forest products and monitor this use to sustain viable populations and future yields. Increase public awareness of special forest product harvesting impacts on populations and their ecosystems.

### Standards/Guidelines for Vegetation

#### Timber Management

**SFW-VEG-1:** Employ silvicultural methods for regeneration harvests that will result in adequate restocking within 5 years of a harvest.

**GFW-VEG-2:** Locate even-aged, final regeneration harvests in time and space so that temporary openings are at least 500 feet apart. Regenerated stands following even-aged timber regeneration harvest, such as clearcuts, two-aged cuts, and shelterwood harvests, will no longer be considered openings when trees in the new stand have reached a height of 20 feet.

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<sup>1</sup> Reference to Wildlife Objectives corrected 10/16/2008 by Administrative Correction # 1

**GFW-VEG-3:** Plan the creation of temporary openings to be of irregular, natural appearing shape arranged to meet wildlife objectives. Feather the edges of clear-cuts and two-aged openings (see GFW-SM-13).

**GFW-VEG-4:** Limit skid trails to a maximum sustained gradient of 35 percent.

**GFW-VEG-5:** Permit operation of heavy equipment only when the soil is not saturated, or when the ground is frozen deep enough to support equipment without causing excessive rutting.

**SFW-VEG-6:** Require approval by qualified Forest Service personnel of locations of roads, skid trails, and landings prior to their construction.

**GFW-VEG-7:** Adequate tree stocking should generally result from regeneration harvests through natural regeneration (sprouting, release of seedlings, and establishment of seedlings). Where tree planting is necessary to achieve adequate stocking or establish different species, consider site conditions, habitat objectives, and economic factors in determining site preparation and species selection.

**SFW-VEG-8:** Ensure quality control by monitoring the adequacy of pesticide application procedures and the accomplishment of objectives.

**GFW-VEG-9:** Regeneration harvests may be implemented in immature timber stands when necessary to meet wildlife habitat objectives.

**GFW-VEG-10:** Base wildlife habitat objectives for age-class distributions on NFS land ownership only, because future habitat provided on privately owned land is not predictable. However, consider vegetative conditions on adjacent private land when planning vegetation management projects (e.g., to avoid locating a clearcut on NFS land next to a recent clearcut on private land).

**GFW-VEG-11:** Under two-aged regeneration harvests, leave approximately 15 to 30 square feet of basal area per acre uncut. Select leave tree species and distribution to meet wildlife habitat objectives.

**GFW-VEG-12:** In two-aged regeneration harvests, clearcut and shelterwood harvests, leave dogwood, redbud, and other low growing flowering and fruiting trees and shrubs, unless the amount to be left would inhibit natural regeneration of desired tree species.

**GFW-VEG-13:** When available, use planting stock of species native to the area from known seed sources and from the same climatic zone in which they will be planted.

**GFW-VEG-14:** Treat stand understories prior to and/or after timber harvest to develop advanced reproduction of desired tree species and to control grapevines where necessary to meet regeneration objectives. Such treatments may include the use of prescribed fire and/or chemical control of understory species and soil scarification to regenerate native pines. Leave adequate grapevines to meet wildlife needs. Do not remove pigeon grapes.

**GFW-VEG-15:** Pre-commercially thin regenerated stands to favor desired species and improve health, vigor, and growth.

**GFW-VEG-16:** When conducting crop tree release treatments, girdle (rather than felling) trees which could serve as future snags.

**GFW-VEG-17:** Manage vegetation in areas of concentrated use, such as picnic areas, campsites, trailheads, and concentrated use to enhance visitor safety, prevent soil erosion, and protect or enhance scenic quality.

### **Special Forest Products**

**SFW-VEG-18:** Require a permit for all commercial collection of special forest products, and for collection of special forest products for personal use (i.e., medicinal plants, firewood). A permit is not required for personal use of berries, nuts, and pine cones.

**SFW-VEG-19:** Prohibit collection of Federally listed or Regional Forester sensitive species.

**SFW-VEG-20:** Implement rotational area or Forest-wide closure orders to prevent over-harvesting of plants and allow stressed populations of plants to recover, when such populations are identified.

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## 7 – Forest Health

### Goal 7.1 – Protect Vegetation and Wildlife from Insects, Diseases and Wildfire

Limit the effects of insects, diseases, and wildfire on forest vegetation and wildlife to within the range of disturbances that occurred in forest ecosystems prior to the arrival of non-native insects and diseases. Manage non-native invasive species (NNIS) populations using prevention, suppression, and restoration techniques to protect and restore natural communities on the Forest.

**Objective-7.1a** – Maintain an inventory of NNIS insects and diseases affecting or potentially affecting NFS resources.

**Objective-7.1b** – Cooperate with the ODNR and the State and Private Forestry Division of the Forest Service to suppress insect populations to:

- Retard advance of the gypsy moth
- Eradicate NNIS species that are present but not yet well established, such as the emerald ash borer
- Prevent the spread of non-native species currently lacking natural controls
- Protect populations of, or habitat for, endangered, threatened, or sensitive species
- Protect rare communities likely to be severely impacted by insect outbreak
- Prevent extensive tree mortality or defoliation in developed recreation areas and other areas where maintaining visual quality is a major objective
- Prevent spread onto land or into high value areas of the Forest (e.g., rare communities, developed recreation areas)
- Prevent the introduction and spread of Sudden Oak Death Syndrome.

**Objective-7.1c** – Protect the forest from wildfire by:

- Treating hazardous fuels that present a risk of wildfire.
- Treating hazardous fuels to move the forest closer to desired fire regime condition class and desired future condition.
- Maintaining areas that are at the desired fire regime condition class.

## Goal 7.2 – Control NNIS Plants

Manage NNIS populations using prevention, suppression, and restoration techniques to protect and restore natural communities. Emphasize prevention of spread and early detection of and rapid response to new infestations. Improve effectiveness of NNIS prevention practices through public and inter-agency NNIS awareness and education.

**Objective 7.2a** – Maintain and update an inventory of NNIS plant populations on NFS land. Include information on adjacent lands as gathered in cooperation with neighboring landowners.

**Objective 7.2b** – Treat and reduce populations of non-native invasive plant species with high potential for spread. Implement control treatments of infestations that threaten priority resources. Prioritize treatment areas based on risk of spread, threat to resources, likelihood of successful control/containment, and partnerships.

## Goal 7.3 – Control NNIS Aquatics

Use prevention, suppression, and restoration techniques to protect and restore natural communities in NFS waters. Emphasize prevention of spread and eradication of small populations/areas of infestation. Improve effectiveness of NNIS prevention practices through public and inter-agency NNIS awareness and education.

## Goal 7.4 – Promote Disease-Resistant Species

Re-establish populations of native vegetation (e.g., American chestnut, American elm), as disease resistant varieties become available.

### Standards/Guidelines for Forest Health

#### General

**SFW-FH-1:** Incorporate NNIS risk assessments in project planning, and include NNIS prevention and treatment in project development, analysis, and implementation.

**SFW-FH-2:** Emphasize integrated pest management to control NNIS, including silvicultural treatments, maintenance of species diversity, mechanical and pesticide treatments, and introduction of diseases and insect predators or parasites specific to the target pest.

**GFW-FH-3:** Prioritize NNIS prevention and control to:

- Prevent new infestations
- Protect known Federally listed endangered and threatened and Regional Forester Sensitive Species plant and animal sites
- Protect special areas and research natural areas from new invasions and treat established infestations in these areas

- Treat new (small) infestations
- Contain and control established NNIS infestations with the greatest probability to spread (e.g., gravel pits, trailheads, recreation areas).

### **Insect/Disease Control**

**GFW-FH-4:** Emphasize integrated pest management to control insects and diseases, including silvicultural treatments, maintenance of species diversity, and introduction of insect predators or parasites.

**GFW-FH-5:** Apply restricted-use pesticides only under the direct supervision of a certified applicator. Other pesticides may be applied by a qualified applicator or by a certified applicator. Require permitted users to meet the same environmental standards that apply to Forest Service activities.

### **Vegetation Management**

**GFW-FH-6:** Use commercial thinning of timber stands to promote growth of crop trees and to maintain forest health.

**GFW-FH-7:** When planting areas with tree seedlings, consider planting a mixture of species to:

- Reduce insect and disease susceptibility
- Increase visual variety
- Add habitat diversity.

### **NNIS Plants**

**SFW-FH-8:** Forest contracts and permits shall include appropriate clauses for the prevention and/or treatment of NNIS.

**GFW-FH-9:** Reduce the spread of NNIS by cleaning off-road Forest Service equipment after fieldwork.

**SFW-FH-10:** Ensure that seed mixes or cultivated plants used for restoring disturbed areas or landscaping on NFS land do not include any species on the Forest's NNIS list or NNIS species identified by the State of Ohio or its neighboring states (i.e., Kentucky, Pennsylvania, Michigan, Indiana, and West Virginia).

**GFW-FH-11:** When restoring disturbed areas, prevent NNIS plant invasion or spread by using the following measures:

- Use weed-free mulch and forage when available.
- Use natural re-vegetation of native species for small-sized disturbances (e.g., utility rights-of-way, firelines) where the threat of erosion and sedimentation is limited.

- When seeding is necessary to accomplish re-vegetation, prioritize the composition of the seed mix as follows:
  - Native species with local genotypes (locally adapted)
  - Native species with non-local genotypes (not locally adapted)
  - Desirable non-native species that are non-aggressive and non-persistent (annuals)
  - Encourage the use of locally grown/adapted native plant materials.

**GFW-FH-12:** Consider NNIS situations on adjacent lands when planning and conducting management activities.

**GFW-FH-13:** Use only NNIS-free forage and mulch on NFS land.

**GFW-FH-14:** Encourage recreational riders and livestock permittees to use weed-free forage for stock.

**GFW-FH-15:** Encourage the construction and use of NNIS cleaning stations at trailheads.

**GFW-FH-16:** Work with local nurseries and other partners to educate the public on the use of native species instead of NNIS.

### **Pesticide Use**

**SFW-FH-17:** Train workers who apply pesticides to ensure their safety, minimize adverse environmental impacts, and maximize effectiveness.

**SFW-FH-18:** Follow label directions and guidelines for pesticide mixing, application methods, rates, and timing to protect human, wildlife, and environmental safety.

**SFW-FH-19:** Do not clean application equipment, pesticide containers, clothing worn during treatment, or skin in open water or wells. Mixing and cleaning water must come from a public water supply.

**SFW-FH-20:** Allow only pesticides approved for aquatic use within riparian areas.

**GFW-FH-21:** In areas undergoing herbicide treatment, create buffer zones around threatened and endangered species and Regional Forester sensitive species.

**SFW-FH-22:** Do not conduct prescribed burning after herbicide application until the herbicide has had time to be effective and residues are no longer present.

**GFW-FH-23:** To minimize human exposure to pesticides, schedule treatment of high visitor use areas, such as recreational areas, during low-use periods, or when the areas are temporarily closed and signed.

**GFW-FH-24:** Sign areas of human use prior to and after pesticide application.

**GFW-FH-25:** Emphasize selective treatments (e.g., cut surface, basal stem, foliar spray and soil spot) over broadcast treatments (manual/mechanical broadcast and aerial).

**GFW-FH-26:** Monitor effectiveness of treatments to ensure that goals of treatment are met and to allow for adaptive measures to improve management efficiency and effectiveness.

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## 8 – Fire Management

### Goal 8.1 – Integrated Fire Prevention

Safely implement the fire and fuels program of the Wayne National Forest. Promote State and Federal interagency cooperation in wildland fire and fuels management.

**Objective 8.1a** – During any fire or fuel management activity, give highest priority to safety of employees, cooperators, and the public.

**Objective 8.1b** – Safely extinguish wildland fires using ground and/or air resources.

**Objective 8.1c** – Reduce hazardous fuels within communities at risk in cooperation with local, State, and Federal agencies.

**Objective 8.1d** – Modify wildland fire behavior to reduce adverse effects, such as reduction of soil productivity and mortality of large diameter trees by reducing the stocking of small trees, creation of fuel breaks, and prescribed fire to reduce fuel loading. Move toward fire-resilient stands, maximizing the retention of larger diameter trees.

**Objective 8.1e** – Provide training to local volunteer fire departments in wildland fire suppression.

**Objective 8.1f** – Facilitate treatment of private land where hazardous fuels pose a threat to National Forest System land (Stephens Funding).

**Table 2 - 4. Wildland Fire Suppression Direction**

Management Area Direction	Wildland Fire <i>Unplanned Ignitions</i>					Prescribed Fire Planned Ignitions		
	Wildland fire use authorized in fire management units with approved plans	Must be managed as unwanted wildland fires if either human caused and approved fire use plan does not exist OR when fire presents unacceptable threat to human safety or values to be protected					May be implemented by management action authorized by approved burn plans	
		STRATEGIES AND TACTICAL OPTIONS						
		Perimeter Strategy	Area Strategy		ME	AR	Prescription Strategy	
Control	Confine or Contain	Monitor						
Candidate Areas	X	X	X	X	X <sup>1</sup>	X <sup>1</sup>	X	
Developed Recreation		X			X <sup>1</sup>	X <sup>1</sup>	X	
Diverse Continuous Forest	X	X	X	X	X	X	X	
Diverse Continuous Forest w/OHV	X	X	X	X	X	X	X	
Forest and Shrubland Mosaic	X	X	X	X	X	X	X	
Forest and Shrubland Mosaic w/OHV	X	X	X	X	X	X	X	
Future Old Forests		X	X	X	X	X		
Future Old Forest w/ Mineral Activity		X	X	X	X	X		
Grassland and Forest Mosaic	X	X	X	X	X	X	X	
Historic Forest	X	X	X	X	X	X	X	
Historic Forest w/OHV	X	X	X	X	X	X	X	
Research Natural Areas	X	X	X	X			X	
River Corridor	X	X	X	X	X <sup>1</sup>	X <sup>1</sup>	X	
Special Areas	X	X	X	X	X <sup>1</sup>	X <sup>1</sup>	X	
Timbre Ridge Lake		X	X	X	X <sup>1</sup>	X <sup>1</sup>	X	

X = Allowed

<sup>1</sup> = District Ranger approval

ME = Mechanized equipment (such as dozers, graders, etc) allowed

AR = Aerial retardant application

OHV = Off-highway vehicles

## Fire Management

**SFW-FIRE-1:** Every wildland fire requires an appropriate suppression response, as outlined in Table 2 - 4. Base wildland fire prevention, detection, and suppression on the Forest-wide risk assessment. Base value-at-risk on the following criteria:

- Ignition probability
- Proximity to urban interface/intermix
- Density of structures within the Forest Protection Boundary
- Response times
- Fuel models
- Proximity to sensitive resources.

**SFW-FIRE-2:** In cooperation with other agencies, define suppression action plans that are compatible with management area objectives.

**GFW-FIRE-3:** Consider local resource management goals and objectives when developing suppression plans.

**GFW-FIRE-4:** Consider wildland fire use (i.e., transition from wildfire to prescribed fire) where burning conditions are favorable and there is no unusual risk to the public, firefighters, or improvements.

**GFW-FIRE-5:** Do not conduct prescribed burning within developed recreation sites when they are open to public use.

**GFW-FIRE-6:** Include smoke management and mitigation in all prescribed burning plans. Use best available smoke management practices and control measures to assure that prescribed fires do not adversely affect public health, public safety, or visibility. Conduct prescribed burning in, or adjacent to, counties with forecasted high Air Quality Index (AQI) values (AQI = Orange or higher) only if meteorological conditions ensure that smoke will be carried away from the high AQI area. Minimize impact of smoke from any prescribed fire by identifying smoke-sensitive areas, monitoring smoke impacts, informing adjoining landowners prior to prescribed fire ignitions, and following applicable guidance.

**GFW-FIRE-7:** Use existing natural or man-made barriers – such as drainages, cliffs, streams, roads, and trails – instead of constructed firelines for fire suppression when the value-at-risk is low and where practical and safe for firefighters and the public. Do not disk, blade, or plow firelines within stream channels, including ephemeral channels. Use stream channels as natural firebreaks. Provide the same suppression strategies as on NFS land, unless suppression measures are specifically qualified by the protection agreement.

**GFW-FIRE-8:** Allow growth of existing on-site vegetation to revegetate soils disturbed by constructed firelines.

**GFW-FIRE-9:** Monitor burned areas (wildfire and prescribed fires) to determine effects on presence and spread of non-native invasive plants.

**GFW-FIRE-10:** Avoid constructing firelines in recreation sites and known heritage sites.

**GFW-FIRE-11:** Cut or remove as necessary standing dead trees that constitute a safety hazard for the public or for safe fire suppression operations.

**GFW-FIRE-12:** Implement adequate erosion control measures (water bars, rolling dips, etc.) on all constructed fire lines where necessary to reduce the amount of sediment leaving a given area. Erosion control should occur as soon as possible after suppression activity is complete.

**GFW-FIRE-13:** When using heavy equipment for fire suppression, cross stream channels at right angles. Stabilize and/or re-vegetate the crossing as soon as possible after the fire is controlled. (See also GFW-WSH-6, 7 and 8.) Do not apply chemical fire retardants directly over water bodies unless needed for firefighter or public safety.

**GFW-FIRE-14:** Prescribed fire treatments in areas that currently qualify as old growth should be planned to maintain or contribute to the restoration of old growth characteristics.

## 9 – Air Quality

### Goal 9.1 – Protect air quality

Ensure that Forest management activities comply with Federal and State laws protecting air quality.

#### Standards/Guidelines for Air Quality

##### General

**GFW-AIR-1:** Coordinate management activities with air quality regulatory authorities and with research activities on the impact of air pollution on Forest resources.

**GFW-AIR-2:** Coordinate with air quality regulatory authorities and with research activities on preventative practices to control any significant air pollution emissions resulting from National Forest management activities.

**GFW-AIR-3:** Conduct management activities (including permitted activities) in a manner that does not contribute significantly to violations of National Ambient Air Quality Standards or violations of applicable provisions in the State Implementation Plan.

**GFW-AIR-4:** The Forest Supervisor will advise the Regional Forester on the potential effects of proposals by the State of Ohio to modify air quality standards or attainment areas and the identification of present and potential impairment of Forest resources attributable to air pollution.

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## 10 – Minerals

### Goal 10.1 – Provide mineral commodities

Provide a supply of mineral commodities for current and future generations, while protecting the long-term health and biological diversity of ecosystems. Facilitate the orderly exploration, development, and production of mineral and energy resources on land open to these activities.

**Objective 10.1a** – Coordinate with the Bureau of Land Management to offer leases of Federally owned minerals.

**Objective 10.1b** – Process plans of operation/applications for permit to drill on Federal leases in a timely manner.

### Goal 10.2 – Respect owners' rights and protect surface resources

While respecting privately held mineral rights, negotiate operating terms and conditions and mitigation measures to protect other Forest resources.

**Objective 10.2a** – Process plans of operation (and applications for major modifications) for privately owned minerals (reserved and outstanding rights) within 60 days.

**Objective 10.2b** – Restore lands disturbed by minerals exploration and production when the minerals activity is completed.

**Objective 10.2c** – Plug wells when production ceases.

### Standards/Guidelines for Minerals

#### Federally and Privately Owned Minerals

**SFW-MIN-1:** Prevent or eliminate occupancy that is not reasonably incident to, or required for, legitimate mineral operations.

**SFW-MIN-2:** Require that all proposed surface-disturbing mineral activities have an approved operation and reclamation plan before the activity begins.

**SFW-MIN-3:** Require that operators conduct activities and maintain equipment to prevent the discharge of oil or brine onto the ground or into surface waters.

**SFW-MIN-4:** Upon discovery or notification of an accidental spill of crude oil or brine that discharges, or threatens to discharge, into surface waters, notify the Ohio Environmental Protection Agency Emergency Response and Special Investigations unit in Columbus.

**SFW-MIN-5:** The operator, as directed by Ohio EPA, is responsible for remedial action for cleanup of soil and water resources and timely repair of damaged wells, pipelines, or tanks.

**GFW-MIN-6:** Do not permit mineral development within 50 feet of recreation trails.

**SFW-MIN-7:** Evaluate the potential for mineral development prior to committing substantial Forest Service capital investments, such as for recreation developments.

**SFW-MIN-8:** Require owners and lessees to plug oil and gas wells when production ceases. Work with cooperating agencies to plug abandoned non-producing wells without identified owners.

### **Federally Owned Minerals**

**SFW-MIN-9:** Apply the No Surface Occupancy (NSO) stipulation to new Federal leases in the following Management Areas:

- Future Old Forest
- Developed Recreation
- Timbre Ridge Lake
- Special Areas
- Research Natural Areas
- Candidate Areas.

(See Appendix H for a complete list of standard notifications and stipulations for Federal leases).

**SFW-MIN-10:** Within management areas where surface occupancy is generally permitted, apply the No Surface Occupancy stipulation for new Federal leases where the following conditions occur:

- Slopes in excess of 55 percent and areas prone to mass soil movement
- Areas within ¼ mile of Indiana bat hibernacula
- Cultural resource sites of known significance.

**SFW-MIN-11:** Within management areas where surface occupancy is generally permitted, apply the Controlled Surface Use stipulation for new Federal leases where the following conditions occur:

- Riparian areas and wetlands
- Managed wildlife openings
- Developed recreation sites (located outside the Developed Recreation Management Area)
- Areas of land with a Scenic Integrity Objective of ‘High’ or ‘Moderate’
- Known locations of Federally listed species

- Known locations of Regional Forester Sensitive Species
- Portions of floodplains outside riparian areas
- Slopes between 35 and 55 percent.

**SFW-MIN-12:** Consider approval of plans of operation based on applicable regulations and analysis of:

- Surface/subsurface resources
- Any restrictions and mitigations determined by an environmental analysis
- Road construction standards
- Standard BLM lease stipulations
- Appropriate lease-specific oil and gas notifications and stipulations (See Appendix H – Lease Specific Oil and Gas Notifications/Stipulations).

**SFW-MIN-13:** Make mineral materials available for administrative, commercial, or personal use only where surface disturbance can be mitigated.

**SFW-MIN-14:** Allow the public to collect small quantities of rocks, minerals and invertebrate fossils for non-commercial purposes (scientific, educational, and recreational, including recreational gold panning). Such collecting is prohibited in archeological sites, caves, and abandoned mines to protect these sensitive resources. Prohibit gold panning in specific stream segments where needed to protect aquatic habitat for species such as mussels.

Require a special-use permit for:

- Collecting for commercial use
- Activities involving motorized excavation
- Collecting activities that cause movement of more than incidental amounts of sediment into or within streams.

### **Privately Owned Minerals**

**SFW-MIN-15:** Administer private mineral rights so that their activities/operations are consistent with:

- Rights granted by deed
- Best management practices to mitigate surface disturbances
- Applicable Federal and State regulations.

**SFW-MIN-16:** Ensure that land management decisions do not preclude the reasonable exploration and development of privately owned minerals, as defined by deed and applicable Federal and State regulations.

**SFW-MIN-17:** Require that owners and lessees of mineral rights provide the Forest with satisfactory evidence of authority to exercise reserved and/or outstanding mineral rights.

**SFW-MIN-18:** Coordinate with owners and lessees of mineral rights so that they provide the Forest with at least 60 days advance written notice of surface occupancy by submitting a proposed operating plan, or for any major modification of a mutually agreed upon operating plan.

**SFW-MIN-19:** Work with operators to ensure compliance with operating plans, including implementation of mitigation measures, in the development of reserved and outstanding mineral rights.

**SFW-MIN-20:** The exercise of all reserved and outstanding mineral rights are subject to applicable State and Federal laws and regulations pertaining to mining, real property, and environmental protection, including the Surface Mining Control and Reclamation Act with regard to coal.

**SFW-MIN-21:** Provide the Bureau of Land Management (BLM) with lease-specific stipulations, when term private leases are non-competitively converted to Federal leases in accordance with the Comprehensive National Energy Policy Act of 1992.

## 11 – Recreation

### Goal 11.1 – Provide broad range of recreation

Provide a broad range of developed and dispersed outdoor recreation opportunities and experiences within the ecosystem’s acceptable limits of change. Manage recreation facilities and opportunities to respond to public demands and promote local economic development. Emphasize recreation opportunities which can be better provided on the Forest than on private or other public land.

**Objective 11.1a** – By the end of this planning period, add at least one camping facility for OHV use and one for equestrian use. This could be accomplished by the Forest Service or concessionaire on NFS land or by the private sector on adjacent private property.

**Objective 11.1b** – Provide quality wildlife-based recreational opportunities to the public, including hunting, fishing, and wildlife viewing.

**Objective 11.1c** – Use interpretive and education services and programs to increase public understanding of Forest Service management, develop public interest and understanding of the Forest’s natural and cultural environment, and educate the public on the safe and legal use of the Forest.

### Goal 11.2 – Provide Safe, Quality Trails

Construct and maintain trails and associated facilities to provide a safe quality experience within the capabilities of the land and appropriate to the management area.

**Objective 11.2a** – Cooperatively manage the North Country National Scenic Trail with the USDI National Park Service and the North Country Trail Association per the established Memorandum of Understanding (as amended).

**Objective 11.2b** – By the end of this planning period, relocate/reconstruct five miles of the North Country Trail where the trail is currently located on roads.

**Objective 11.2c** – Maintain and administer the Forest’s motorized trail system to provide safe/enjoyable trail riding opportunities and reduce resource impacts.

**Objective 11.2d** – Where maintenance methods prove ineffective and monitoring confirms unsafe conditions or unacceptable resource damage, close and rehabilitate and/or re-locate/reconstruct sections of OHV trails.

**Objective 11.2e** – Reduce, and strive to eliminate illegal OHV use by:

- Prohibiting cross-country travel or riding on undesigned user-created trails
- Prohibiting riding trails designated for other uses.
- Prohibiting riding on designated trails during closed seasons.
- Closing at least 20 miles of illegal off-highway vehicle trail within the next decade to:
  - a) Protect Federally listed species
  - b) Protect Regional Forester’s sensitive species
  - c) Improve watershed health

**Objective 11.2f** – Maintain the Forest’s non-motorized trail system to provide safe/enjoyable trail hiking, horseback riding, and biking opportunities with minimal resource impacts.

**Objective 11.2g** – Construct new trails during the next 10 to 15 years within the ranges and densities shown in Table 2 - 5.

**Table 2 - 5. Trail Construction Objectives**

Type of Trail	New Trail Construction <sup>2</sup> (Miles)	Current Trail (Miles)	Trail Density Limit (Miles per Sq. Mile)
OHV	50 - 124	116	2.4 – 3.5
Hiking	5 – 30	81	Up to a total of 2.5 mi /sq mi
Horseback	5 – 50	75	(this figure includes all types of non-motorized trails)
Mountain Bike	15 - 30	0	

## Standards/Guidelines for Recreation

### Developed Recreation

**GFW-REC-1:** Develop and manage Forest Service roads to conform to the appropriate Recreation Opportunity Spectrum (ROS) class.

**SFW-REC-2:** Operate and maintain existing and new recreation facilities to meet all current mandatory critical standards. If public health and safety cannot be reasonably ensured, close developed sites until this critical standard is met.

<sup>2</sup> New trail construction miles are based on the primary trail use. Newly constructed multi-use trails will only be counted as new trail construction for the primary use.

**SFW-REC-3:** Prepare comprehensive, detailed site plans prior to recreation facility and site construction or reconstruction in accordance with Forest Service policy.

**SFW-REC-4:** When choosing location of recreational developments, give priority to:

- Correcting health and safety problems
- Protecting the environment
- Complementing prescribed recreation opportunities
- Meeting public demand
- Availability of suitable access
- Cost of construction, operation, and maintenance.

**GFW-REC-5:** Consider adjacent State or local recreation facilities, their uses and long-term objectives, before proposing any new recreation development.

**GFW-REC-6:** Remove hazard trees within developed recreation sites as needed to provide for public safety.

**SFW-REC-7:** Clearly mark and sign the boundaries of all developed recreation sites.

**SFW-REC-8:** Prohibit hunting, shooting, and bow fishing within the boundaries of developed recreation sites.

**GFW-REC-9:** Limit regulation, constraint, and supervision of recreation use to the minimum necessary for resource protection, visitor satisfaction, and public and employee safety.

**GFW-REC-10:** Annually update the Forest's developed recreation sites, concentrated use areas (CUAs), and trails information in the appropriate forest service corporate databases to improve data accuracy.

**GFW-REC-11:** When constructing new campgrounds, maintain larger mast producing trees to enhance wildlife viewing opportunities, provide shade and screening, and enhance scenic quality.

### **Dispersed Recreation**

**GFW-REC-12:** Allow only manually-powered watercraft or those powered by electric trolling motors on the Forest's lakes and ponds.

**SFW-REC-13:** To protect populations of Regional Forester sensitive species, allow rock climbing and rappelling only at designated sites.

**SFW-REC-14:** Allow geo-caching with the following restrictions:

- Require special-use authorization for any geo-caching activity.
- Prohibit motorized vehicles use off of roads or trails to access geo-cache sites.
- Explosives, flammable materials, drugs, and other items that may pose a public health or safety risk are prohibited. Include a list of prohibited geo-cache materials in the special use authorization.
- Prohibit geo-caching on developed recreation sites, heritage resource sites, research natural areas, special areas, and candidate areas.
- Allow no soil disturbance on the Forest for geo-cache placement. Caches must be covered with leaves or woody debris if the geo-cacher chooses to screen the cache at the site.
- To minimize resource impacts, require geo-cachers to remove their cache if the site receives a large number of visits by others, as evidenced by a well-worn trail or path.
- After one year, regardless of site activity, geo-caches must be moved to a new location or removed from the Forest.

**SFW-REC-15:** Prohibit cross-country travel by ATVs, OHMs, mountain bikes, horses, or other pack stock. These uses shall be restricted to designated trails only. **Exception:** Cross-country travel is permitted for administrative purposes and/or during emergency search and rescue missions approved by a Forest line officer.

### **Trails**

**SFW-REC-16:** OHV, mountain bike, and horse trails are open (unless posted closed) for riding from April 15th through December 15th. Close these trails (except for foot travel) during the winter period (December 16th through April 14th) to minimize environmental impacts and maintenance costs. **Exception:** Trails may be used for administrative purposes and operation/maintenance of approved oil and gas facilities.

**GFW-REC-17:** Manage the North Country National Scenic Trail and adjacent Forest lands according to standards incorporated in the act establishing the trail and in accordance with the NCT's Memorandum of Understanding (as amended).

**GFW-REC-18:** Follow the USDI National Park Service's North Country NST – Trail Design, Construction, and Maintenance Handbook for the support structure design, construction, and maintenance of the North Country Trail.

**GFW-REC-19:** Construct, maintain, and sign trails to Forest Service standards and in accordance with the Forest’s sign plan.

**GFW-REC-20:** Manage trails to comply with the management area’s Recreation Opportunity Spectrum objective.

**GFW-REC-21:** Unless a site is interpreted, plan location of trails so that known heritage sites are not readily visible from the trail corridor.

**SFW-REC-22:** Allow pedestrian travel throughout the Forest except where prohibited and signed.

**SFW-REC-23:** Allow wheelchair use in designated non-motorized areas as long as the wheelchair meets the definition as in Title V Section 507c (2) of the American with Disabilities Act: “a device designed solely for use by a mobility impaired person for locomotion, that is suitable for use in an indoor pedestrian area.”

**SFW-REC-24:** Prohibit motorized vehicle use in designated non-motorized areas. Except for:

- Wheelchairs as defined under Title V Sections 507c (2) of the American with Disabilities Act
- Administrative purposes
- Search and rescue missions
- Operation/maintenance of approved oil and gas facilities.

**GFW-REC-25:** Require a special use authorization for any proposed competitive racing or other organized trail riding event. Consider possible environmental impacts and impacts on other users.

**SFW-REC-26:** Allow mountain bikes and horses on hiking trails only where designated and signed.

**SFW-REC-27:** Construct and maintain trails and associated facilities to be cost-effective and minimize user conflicts.

**GFW-REC-28:** After abandoned mine lands have been reclaimed 10 years or more, consider them for the development of trails and associated recreation facilities.

**GFW-REC-29:** Discourage construction of new trails within riparian areas. Where trails are located in riparian corridors, construct and maintain them to minimize adverse impacts to the ecological function of the area.

**GFW-REC-30:** Maintain hiking and mountain bike trail tread with natural surfacing to a width of 18 to 24 inches.

**GFW-REC-31:** Maintain horse trail tread to an average width of 36 inches.

**GFW-REC-32:** Allow horse, mountain biking, and hiking trails to cross motorized trails/areas. Sign crossings in accordance with the Forest’s sign plan for trails.

**GFW-REC-33:** Favor loop and two-way trails for hiking, horse, and mountain bike trails.

### **Off-Highway Vehicles (OHV)**

**SFW-REC-34:** Limit ATV and OHM use to designated trails in specific management areas:

- Diverse Continuous Forest with OHVs (DCFO)
- Historic Forest with OHVs (HFO)
- Forest/Shrubland Mosaic with OHVs.

**SFW-REC-35:** Except for administrative purposes and/or for oil and gas maintenance operations, prohibit motorized vehicles greater than 50 inches wide on trails.

**SFW-REC-36:** Allow motorized OHV use in designated non-motorized areas only for:

- Search and rescue
- Forest management activities
- Operation and maintenance of approved oil and gas facilities.

### **OHV Trail Construction and Maintenance**

**SFW-REC-37:** OHV trails are designed, constructed, and maintained in accordance with Forest Service standards.

**SFW-REC-38:** Locate OHV trails to obtain the minimum safe sight distance for the designed speed. Apply this requirement when locating trail intersections. Use appropriate STOP and YIELD signs.

**SFW-REC-39:** Install approved signing needed at trailheads and junctions and for on-trail guidance before a trail is considered complete and ready for traffic.

### **4-wheel Drive and High-clearance Vehicles**

**SFW-REC-40:** Do not construct new roads specifically for recreational 4-wheel drive use.

**SFW-REC-41:** Prohibit recreational uses that are incompatible with Forest Plan objectives or where environmental damage could not be mitigated.

**SFW-REC-42:** Before permanent closure of roads, consider for possible use by high-clearance/four-wheel drive vehicles.

## 12 – Scenery Management

### Goal 12.1 – Maintain scenic resources

Maintain or enhance the quality of scenic resources to provide desired landscape character. See management area scenery objectives in Chapter 3, and Appendix I.

#### Standards/Guidelines for Scenery Management

##### General

**GFW-SM-1:** Resource management activities should not reduce scenic integrity levels below the prescribed objective for a given area or Concern Level 1 or 2 travelway or use area, except in the case of specific resource rehabilitation activities to meet management area objectives and desired future condition. In such cases, a viewshed rehabilitation plan should be included in the overall project plan.

**GFW-SM-2:** Guidelines for high and moderate scenery integrity objective (SIO) areas should be met within one full growing season after the completion of a project. Guidelines for low SIO areas should be met within two full growing seasons following the completion of a project.

Existing projects and areas not currently meeting scenic integrity objectives should be rehabilitated based on the following criteria:

- Relative scenic value of the seen area and the amount of deviation from the scenic integrity objectives
- Length of time needed for restoration and natural processes to reduce visual impacts
- Benefits to other resource management objectives to accomplish scenic integrity rehabilitation.

**GFW-SM-3:** Concern Level 1 and 2 use areas and travelways (corridors ½ mile each side of centerline or ½ mile from the outside perimeter of a use area or any seen area if less than ½ mile from a travelway or use area) should adopt the landscape theme of the management area in which they occur. Manage the areas seen from these Concern Level 1 and 2 use areas and travelways according to the Forest's scenic integrity objectives map.

**GFW-SM-4:** Minimize, remove, or clean up any evidence of temporary activities (such as staking, paint, flagging, equipment maintenance, and/or staging areas) immediately after project completion.

##### Facilities

**GFW-SM-5:** All structures and materials, including signs, bridges, fish and wildlife improvements, and other facilities, should be consistent with the guidelines developed in the Built Environment Image Guide and the Forest Service Sign Guide.

**GFW-SM-6:** New structures should be compatible with valued cultural features in the landscape such as historic structures. See the landscape character description for identification of the valued cultural features and the Built Environment Image Guide.

**GFW-SM-7:** Material selection, color, and shape of administrative and recreation facilities should minimize contrasts and blend with natural surroundings and landscape character.

**GFW-SM-8:** Emphasize the use of native materials.

**GFW-SM-9:** Use plants native to southeast Ohio as much as possible when landscaping. Plants listed on the Forest’s NNIS list, as well as Ohio and other neighboring states’ NNIS lists should not be used for landscaping.

**GFW-SM-10:** Use “landform grading” techniques (naturalized contours) when regrading areas disturbed by construction or other activities such as mining. Replant with native species wherever possible. Do not use plants listed on Federal or State NNIS lists.

### Openings

**GFW-SM-11:** Shape openings created by vegetation management to blend with the adjacent landscape and achieve a natural appearance that mimics natural openings found in the adjacent plant community.

**GFW-SM-12:** Avoid straight-line boundaries even where the scenic integrity objective is low. Vary opening size and shape to avoid uniformity of appearance.

**GFW-SM-13:** To create a natural appearing edge and reduce the sharp contrast of openings, feather the height of remaining trees along opening boundaries to transition gradually from the full-crowned trees in the undisturbed adjacent stand. Also, thin the edges of the adjacent stand in order to soften the transition from the new opening to the undisturbed adjacent stand.

**GFW-SM-14:** Take advantage of existing natural openings when creating vistas or enhancing views.

### Utilities

**GFW-SM-15:** Bury new utility lines and use existing rights-of-way whenever possible.

**GFW-SM-16:** Ensure that utility corridor maintenance agreements allow some regrowth of native vegetation prior to periodic maintenance to help reduce the visual impact of the corridor.

**GFW-SM-17:** For high voltage transmission lines, encourage use of polymer insulators, non-reflective wire, and acid-washed towers or paint them a flat, dark color; e.g., such as flat black (3 parts) mixed with meadow green (2 parts). Also use these guidelines when replacing existing insulators, wire, or towers during routine maintenance or repairs.

**GFW-SM-18:** Allow native vegetation to regenerate as long and as high as possible before removing for necessary maintenance. Where possible and appropriate, explore alternatives to lattice steel towers.

**GFW-SM-19:** Wherever possible, use techniques that reduce the visual impact of cellular antennas. Avoid use of lattice steel towers when possible.

**GFW-SM-20:** Avoid the construction of a greater number of towers by requiring towers to serve multiple purposes (e.g., cellular phone, radio, etc.) and be shared among different service providers. (e.g., more than one cell phone company to share a single tower).

**GFW-SM-21:** Avoid the need for lighted towers, particularly in locations visible from a lake or in the viewshed of a Concern Level 1 or 2 travelway or use area.

**GFW-SM-22:** When technically feasible, make every effort to use the shortest possible tower in a given location. Give consideration to a series of shorter, strategically placed, non-lighted towers rather than constructing a tall, lighted tower (i.e., towers should be less than 200 feet above ground level).

**GFW-SM-23:** Reduce visual impact of current and future obstruction lighting requirements as much as technology and FAA and FCC requirements will allow.

**GFW-SM-24:** Reduce visual impact by using such techniques as, but not limited to, directional lighting, tilting, shields, etc.

**GFW-SM-25:** Maximum intensity of lighting shall be the minimum required by FAA and/or FCC. Unless otherwise required by the FAA, only white (preferable) or red strobe lights should be used at night, and these should be the minimum number and intensity, with the minimum frequency of flashes (maximum duration between flashes), as required by the FAA.

### **High SIO Areas**

**GFW-SM-26:** Locate new overhead utility structures, cellular towers, and right-of-way clearings out of view of the traveling or recreating public unless no other feasible options exist.

### **Moderate SIO Areas**

**GFW-SM-27:** Minimize the visibility to the traveling or recreating public of new overhead utility structures, cellular towers, and right-of-way clearings.

### **Low SIO Areas**

**GFW-SM-28:** New overhead utility structures, cellular towers, and rights-of-way clearings may be located adjacent to roads and other travel corridors.

### **Shorelines, Riparian Areas, and within Streams**

**GFW-SM-29:** Configuration of in-stream structures should appear natural and not impede or pose a hazard to motorized and/or non-motorized use (where applicable).

**GFW-SM-30:** Anchors used to submerge fish habitat structures should not be visible.

**GFW-SM-31:** Shoreline and in-stream installations should maintain the appearance of the natural lake edge or stream meander.

**GFW-SM-32:** Revegetation of exposed areas (including bank/slope stabilization, excavation, etc.) should include the following:

- Stockpile native topsoil and scatter on exposed slopes/areas in conjunction with seeding and planting.
- Plant grass-seed mix and seedlings within one year of completion.
- Plant a mix of small (3 feet tall) trees and shrubs of the same species in the surrounding area.
- Minimize “manicured appearance” of slope and revegetation.

### **Signs**

**GFW-SM-33:** All signs should conform to the Forest Service Sign Guide, especially in regard to size and color.

**GFW-SM-34:** Metal signs (especially those used on roads and trails) should be painted the same color on the back as the front. This is to avoid the aluminum glare that could hinder visibility to oncoming traffic.

**GFW-SM-35:** Use natural materials and colors for markers and sign posts to the extent practical.

### **Roads/Trails / Obliteration and Closure**

**GFW-SM-36:** Where feasible, use natural appearing barriers such as large rocks or vegetated berms to effectively block roads/trails and re-vegetate.

**GFW-SM-37:** Limit the use of tank traps to block roads/trails. Seed tank traps. Encourage the use of slash, large rock boulders, or other natural materials to block roads/trails.

**GFW-SM-38:** When practical (i.e., along visually sensitive areas), plant a mix of vegetation, (3-feet tall or higher) from edge of clearing to edge of travelway where needed to blend closure with existing edge vegetation.

**GFW-SM-39:** When feasible, use natural appearing drainage control measures.

**GFW-SM-40:** Scarify roadbed/trailbed, and if necessary, plant with seed mix. Plant seedlings on side slopes, especially in areas readily visible from an open road, trail, or use area.

**GFW-SM-41:** Roads and trails to be permanently closed should be graded to blend with the surrounding topography. If grading is not feasible, round transition of cuts and fills and/or vegetation to lessen visual impacts.

**GFW-SM-42:** Where possible, conceal abrupt and visible edges in resource management practices (i.e., mowing, prescribed burns, and fencing) from prominent viewing areas.

#### **High and Moderate SIO Areas**

**GFW-SM-43:** Round cut-and-fill slopes to approximate original contours and use landform grading to naturalize contours.

**GFW-SM-44:** Stockpile native topsoil to re-vegetate cut-and-fill slopes.

**GFW-SM-45:** Within one year, plant a mixture of small (3-feet tall or higher) native trees and/or shrubs to cover 50 percent or more of the area, 50 feet back from the vegetation line at road intersections.

**GFW-SM-46:** When possible, minimize the use of gates. Use natural barriers, such as boulders.

#### **Culverts / High and Moderate SIO Areas**

**GFW-SM-47:** Ensure that culvert ends match the angle of the adjacent slopes, or use rocks or other natural-appearing materials to help culverts blend into the landscape.

#### **New Roads / Trails / High and Moderate SIO Areas**

**GFW-SM-48:** For guardrails, use natural materials and colors that blend with the surrounding landscape. (Avoid shiny steel guardrails and jersey barriers.)

**GFW-SM-49:** Whenever possible, use naturalized contours for cut-and-fill slopes rather than straight lines.

**GFW-SM-50:** Re-vegetation of exposed areas (including bank/slope stabilization, excavation, etc.) should include the following:

- Stockpile native topsoil to scatter on exposed slopes/areas, where this can be accomplished without increasing the area of disturbance.
- Plant grass-seed mix and/or native tree or shrub seedlings within one year of completion.

**GFW-SM-51:** When possible, new roads and trails should be located along the periphery of large open areas to maximize opportunities for scenic views from trails and recreation sites.

### **Minerals and Geology / New Projects**

**GFW-SM-52:** Reclaim land disturbed by mining activities or facilities as soon as possible.

**GFW-SM-53:** Reclamation work should reflect the landscape character of the surrounding landscape, which includes grading to the natural landform/contour and revegetation.

**GFW-SM-54:** Native soil should be removed and stockpiled before ground disturbance.

**GFW-SM-55:** Provide appropriate natural screening from mining operations and production facilities adjacent to travelways (open roads and designated trails), recreation sites, navigable streams/rivers, lakes/ponds, and private property.

**GFW-SM-56:** Reclamation measures should ensure that the project area would meet the area's SIO as soon as practicable.

### **Vegetation Management**

**GFW-SM-57:** Review guidelines for constructing temporary openings and managing slash on a project-by-project basis with integrated resource management input. Guidelines should strive to minimize the seen area or apparent size of temporary openings and maximize the natural appearance of the opening.

**GFW-SM-58:** If the objective is to create a scenic vista, manage the project area to maximize the seen area.

**GFW-SM-59:** Vegetation management visible from Concern Level 1 and 2 travelways, use areas, and water bodies should strive to:

- Enhance views, create vistas, feature natural openings
- Retain canopies over travel routes
- Encourage vegetative diversity and seasonal color contrast

- Feature big tree appearance
- Avoid straight lines and even spacing.

**GFW-SM-60:** Vegetation management which creates temporary openings should strive to:

- Feather heights of clearing edges; leave full-crowned trees as leave trees.
- Feathering is the partial cutting of trees along the cutting unit boundary to create transition in vegetation height and/or density between the opening and adjacent forest canopy. Feathering is appropriate in all zones high scenic integrity objectives and is required in all Concern Level 1 areas. Feathering is accomplished by using several different techniques singly or in combination. Possible techniques include:
  - Leaving the existing understory just inside the cutting unit boundary
  - Thinning the overstory canopy along the interior edge of the cutting unit boundary
  - Leaving vegetation of progressively greater height from the interior of the cutting unit to the boundary.

The technique used depends heavily on site conditions and should be determined on a case-by-case basis. The width of the feathered edge should at a minimum equal the height of adjacent uncut stand.

- In Concern Level 1 and 2 travelways and use areas, treat slash resulting from harvest or other management activity so it is no higher than 2 feet above the surface of the ground at least 100 feet from edge of road, trail, or use area, by lopping, chopping, crushing, burning, chipping, or removal, or a combination of these methods.
- Highlight and maintain character trees, such as large-diameter trees, “wolf trees,” open-grown trees, mast-producing trees, etc.
- Keep temporary openings 500 feet apart with a stand of trees at least 20 feet tall.

**GFW-SM-61:** After trees in the re-established stand reach 20 feet in height, openings created by even-aged timber regeneration harvest, such as clear-cuts, two-aged cuts, and shelterwood harvests, should be considered closed.

**GFW-SM-62:** Address specific rehabilitation and enhancement needs and opportunities for the scenery resource during project planning.

**GFW-SM-63:** Screen log landings as viewed from Concern Level 1 and 2 travelways and use areas and water bodies. Rehabilitate log landings after project completion to mimic natural openings.

**GFW-SM-64:** Strive to schedule mechanized activities along Concern Level 1 and 2 travelways, use areas, and water bodies to occur during low-use periods to alleviate noise and visual impacts.

**GFW-SM-65:** Locate furrows, trenches, plantations, etc., to reduce linear appearance as viewed from travel routes, use areas, and water bodies.

**GFW-SM-66:** Design natural-appearing edges rather than straight edges. Avoid straight lines and even spacing and strive for random spacing in tree planting projects.

**GFW-SM-67:** Retain and protect mid-story and understory species with desirable flowering characteristics.

**GFW-SM-68:** Allow no more than 30 contiguous acres of a clear-cut or seed-tree regeneration area with a leave-tree basal area of less than 10 square feet per acre to be visible from the travel-way (open road or trail).

**GFW-SM-69:** Avoid numerous even-aged regeneration areas in close proximity (no closer than 500 feet) during the same planning cycle.

**GFW-SM-70:** Retain groups of trees or large single trees within cutting unit boundaries. Retain trees in accordance with the management area's desired future condition.

### **High SIO Areas**

**GFW-SM-71:** Human interventions may only repeat the form, line, color, and texture found in the natural or natural-appearing landscape. The high scenic integrity objective excludes human alteration or management activity that will be visually evident.

**GFW-SM-72:** Use even-aged regeneration to create spatial diversity, mimic natural processes, or facilitate restoration of wildlife habitat or natural plant communities. Give priority to shelterwood as the even-aged regeneration method for areas with a high scenic integrity objective.

**GFW-SM-73:** No more than 15 contiguous acres of a clear-cut or seed-tree regeneration area should be visible from any given point on a travelway.

**GFW-SM-74:** Temporary openings (including log landings) should be infrequent and should strongly mimic the size, shape, and edge characteristics of natural openings or natural disturbance processes. Once ground cover is established, an opening should resemble a natural occurrence within one growing season after project completion.

**GFW-SM-75:** Slash should be reduced to 24 inches in height within 200 feet of a Concern Level 1 travelway or use area. Use mechanical methods (e.g., roller chopping, lopping), or prescribed burning to lower or reduce slash height.

**GFW-SM-76:** Stumps should be cut within one foot of the ground if within 50 feet of a Concern Level 1 travelway or use area.

**GFW-SM-77:** Do not pile or windrow slash adjacent to the treatment zone. The treated zone should extend 200 to 600 feet beyond the edge of the travelway's cleared right-of-way; the actual width is to be determined on a case-by-case basis or in consultation with a landscape architect.

**GFW-SM-78:** Complete slash treatment within one year of slash production. In the most sensitive areas, such as within developed recreation sites, more intense treatment may be required, such as chipping and scattering or outright removal.

**GFW-SM-79:** Within the boundaries of developed recreation sites and other highly sensitive locations, use cut-tree marking. If leave tree marking should be used, obliterate by over-painting with dark gray paint within one year after the timber sale is closed.

**GFW-SM-80:** Locate all log landings out of sight in travelways with a high scenic integrity objective.

#### **Moderate SIO Areas**

**GFW-SM-81:** Human interventions may repeat form, line, color, and texture of landscape elements normally found in the natural-appearing landscape character being viewed. Interventions may also introduce form, line, color, and texture that are found infrequently or not at all in the landscape character, but these new scenic attributes should remain subordinate to the visual strength of the natural or natural appearing landscape character being viewed and consistent with the landscape character goal.

**GFW-SM-82:** Intermediate/thinning and regeneration prescriptions are appropriate in this area.

**GFW-SM-83:** Temporary openings and harvest activities may be more evident or frequent, but they should continue to mimic the size, shape, and edge characteristics of natural openings or natural disturbance processes. Once ground cover is established, the opening should look like a natural occurrence within one growing season after project completion.

**GFW-SM-84:** Slash within 100 feet of a Concern Level 2 travelway or use area should be reduced to 24 inches in height. Use mechanical methods (e.g., roller chopping, lopping) or prescribed burning to lower or

reduce slash height. Complete treatment within one year of the slash-producing activity.

**GFW-SM-85:** Minimize the number of log landings visible from a travelway.

### **Low SIO Areas**

**GFW-SM-86:** In lands with a low scenic integrity objective, human alterations and management activities dominate the original scenic attributes of the natural or natural appearing landscape character. They borrow from naturally established design attributes – form, line color, and texture.

**GFW-SM-87:** Areas with a low scenic integrity objective are most appropriate for large regeneration prescriptions. In areas of rehabilitation and restoration, temporary openings should generally have a natural appearance. However, these openings may appear larger than openings in other SIO areas.

**GFW-SM-88:** Temporary openings and harvest activities are most evident and most frequent in low SIO areas. As much as possible, however, they should continue to mimic the size, shape, and edge characteristics of natural openings in the landscape or natural disturbance processes. Two growing seasons (after project completion) may be needed to achieve this natural appearance.

**GFW-SM-89:** These openings may include slash and coarse woody debris to achieve other resource goals.

**GFW-SM-90:** Do not pile or windrow slash adjacent to the treatment zone. The treated zone should extend at least 50 feet beyond the edge a travelway's cleared right-of-way. Complete treatment within one year of the slash producing activity.

**GFW-SM-91:** Minimize the number of log landings visible from a travelway.

### **Fuels Management**

**GFW-SM-92:** When possible, limit the number of newly constructed fuelbreaks; utilize existing natural or man-made barriers as fuel breaks. Locate fuelbreaks to reduce linear appearance as viewed from travel routes, use areas, and water bodies.

**GFW-SM-93:** Revegetate newly constructed fuelbreaks upon project completion.

**GFW-SM-94:** Limit the number of high intensity fires (unless prescribed) to reduce long-term charring and scarring of trees.

### **Recreation Areas**

**GFW-SM-95:** Enhance visitor experience by locating new recreation sites and trails at or near large attractive trees (for shading), unique topographic features, scenic vistas, cultural sites of interest, and/or large bodies of water.

**GFW-SM-96:** Utilize natural materials and colors when constructing new or maintaining existing recreation sites/facilities.

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## 13 – Heritage

### Goal 13.1 – Identify, Manage Heritage Resources

Provide current and future generations the opportunity to experience and appreciate the Forest’s diversity of human history and the relationship between people and the land.

**Objective 13.1a** – Increase awareness and appreciation of the cultural heritage of the National Forest through interpretation and public education programs.

**Objective 13.1b** – Promote the scientific study of Forest heritage resources through partnerships with universities, heritage organizations, and government agencies.

**Objective 13.1c** – Reduce the backlog of heritage sites that require formal evaluation for eligibility to the National Register of Historic Places.

**Objective 13.1d** – Develop management plans for the long-term preservation of heritage resources that are either listed on or eligible for the National Register of Historic Places.

### Standards / Guidelines for Heritage Resources

#### Heritage Resource Inventory

**SFW-HERT-1:** Conduct heritage resource inventories on scheduled project areas (defined as an “undertaking” in the National Historic Preservation Act) prior to any activity that could adversely impact heritage resources.

**SFW-HERT-2:** Use only professionally qualified archaeologists and archaeological technicians, or certified archaeological paraprofessionals under the guidance of a professionally qualified archaeologist, to conduct heritage inventories. Utilize volunteers only under the supervision of a qualified archaeologist.

**SFW-HERT-3:** Identify any site, district, building, structure, sacred site, traditional cultural property, or object that is included in or potentially eligible for inclusion on the National Register of Historic Places when conducting heritage inventories.

**SFW-HERT-4:** Develop a list of areas likely to harbor significant heritage resources to establish priority of need; then schedule programmatic surveys accordingly.

#### Heritage Resource Site Evaluation

**SFW-HERT-5:** Evaluate sites that could be affected by Forest Service activities for significance and potential listing on the National Register of Historic Places.

**SFW-HERT-6:** Consider any site not formally evaluated as potentially eligible for listing in the National Register of Historic Places. Extend protection to those sites.

**SFW-HERT-7:** Protect all unevaluated, eligible, and listed sites from ground-disturbing activities. An activity proponent and the Forest archaeologist must develop protective measures. If a project will adversely affect an NRHP-eligible heritage resource and it cannot be redesigned, develop and implement a mitigation plan in consultation with the Ohio Historic Preservation Office and the Advisory Council on Historic Preservation (ACHP).

### **Treatment of Human Remains**

**SFW-HERT-8:** If human remains are discovered on the Forest, ensure they remain in place until Forest Service law enforcement is notified. If remains prove to be historic or pre-historic, subsequent treatment must comply with the Native American Grave Protection and Repatriation Act (NAGPRA).

### **Curation**

**SFW-HERT-9:** Curate the Forest’s heritage resource collections (e.g., artifacts and archival records) according to Federal standards (36 CFR 79). All materials recovered from NFS land will remain the property of the Federal government.

### **Historic Structures**

**SFW-HERT-10:** Maintain, stabilize, restore, and rehabilitate all NRHP-eligible and listed structures and properties in accordance with the Secretary of the Interior’s Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings.

**SFW-HERT-11:** Formally document eligible properties that cannot be maintained or stabilized using the Historic American Buildings/Historic American Engineering Record (HABS/HAER) standards to mitigate the effect of deterioration.

### **Interpretation of Heritage Resources**

**SFW-HERT-12:** Interpret for the public only those heritage resources determined not at-risk of damage or vandalism, both on and off site. Where possible, include in interpretive materials information on rules, regulations, and policies relating to site protection.

**SFW-HERT-13:** Develop interpretive products for heritage resources in accordance with Forest-wide interpretive goals and the Underground Railroad Management and Interpretive Plan for the Forests of the Eastern Region of the U.S. Forest Service, consistent with site protection values.

### **Charcoal Kiln Sites**

**SFW-HERT-14:** The remains of charcoal kilns dating to the early iron furnace period are not considered eligible for the National Register of Historic Places, per consultation with the Ohio Historic Preservation Office (OHPO). Record each kiln (e.g., UTM location, condition, and dimensions) and submit information to OHPO for assignment of a State site number. Once documented, preservation and avoidance is no longer necessary. Preserve representative undisturbed examples for public interpretation where convenient.

### **Inadvertent Discoveries**

**SFW-HERT-15:** When heritage resources are discovered during project implementation, cease all activities within the vicinity until a professional archaeologist has made an on-site assessment and a final determination has been made on what type of protection or mitigation is necessary. The Ohio Historic Preservation Office will be consulted if necessary, prior to the final determination being made.

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## 14 – Land Ownership

### Goal 14.1 – Consolidate Ownership

Adjust land ownership within the Forest proclamation boundary to enhance public benefits and improve management effectiveness.

**Objective 14.1a** – Purchase, exchange, accept donations, or convey lands and mineral rights on a willing seller, willing buyer basis. Give high priority to acquisition of land that will:

- Consolidate National Forest ownership
- Provide access to NFS lands and waters
- Protect or enhance threatened and endangered species habitat, sensitive species, heritage resources, or other special areas
- Provide opportunities for the creation, expansion or management of wetlands, lakes and ponds, or for recreational facilities
- Eliminate or correct sources of water pollution
- Consolidate surface and mineral estates
- Enhance opportunities for local community development.

**Objective 14.1b** – Acquire rights-of-way or property to improve access to NFS land.

**Objective 14.1c** – Foster good neighbor relations with local communities by:

- Not acquiring land that local communities identify as having high potential for development or that is prime farmland
- Considering land exchanges that provide opportunities for development of local communities and their economies
- Facilitating special use authorizations for utilities services to local communities within and near NFS ownership
- Co-locating Forest Service and local community-service communication facilities.

### Goal 14.2 – Maintain Boundary Lines

**Objective 14.2a** – Survey and post landlines not currently marked. Maintain lines previously marked on a 10-year cycle.

**Objective 14.2b** – Resolve trespass/encroachment situations.

#### Standards / Guidelines for Landownership

**SFW-LAND-1:** Ensure that land surveys conform to Federal and State legal requirements and methodology.

**SFW-LAND-2:** Use condemnation authority only to acquire critically needed rights-of-way, complete critical water impoundment projects, or to clear title. Use condemnation only after all other efforts have failed.

## 15 – Special Uses

### Goal 15.1 – Special Use Authorizations

Allow special uses that enhance or maintain appropriate public access and use.

Authorize special uses that:

- Serve the public
- Promote public health and safety
- Protect the environment
- Cannot be reasonably accommodated on private land.

### Goal 15.2 – Communication Sites

Allow communication sites on NFS land to provide public benefits. Design and engineer sites to minimize adverse environmental and visual impacts.

**Objective 15.2a** – Manage the following communication sites for administrative and cooperators' use:

- Johns Creek – Ironton Ranger District
- Shawnee Tower – Athens Ranger District.

**Objective 15.1b** – Permit agricultural uses, including haying, where continuing existing uses will facilitate land acquisition.

### Standards / Guidelines for Special Uses

**GFW-SPEC-1:** Require adequate bonds or other security instruments for special use authorizations that have potential for disturbances that may require rehabilitation or when needed to ensure other performance.

**GFW-SPEC-2:** Do not permit roads to cross NFS land for access to private land when public road access is adequate (or can be made adequate) or where a legal right-of-way via non-NFS land is available.

**GFW-SPEC-3:** Require underground placement of utility distribution lines, unless the environmental impacts of buried lines exceeds those of overhead lines.

**GFW-SPEC-4:** Locate new utility corridors outside wetlands and riparian areas.

**GFW-SPEC-5:** Minimize adverse effects on wildlife from mowing/haying by not mowing during the major bird-nesting period from early spring through June.

**GFW-SPEC-6:** Locate roads and utilities for access to private land or to privately held mineral rights in the same corridor.

### Communication Sites

**SFW-SPEC-7:** Design communication towers and related ridge-top developments to minimize adverse impacts to bats and migratory birds. Encourage modification of existing communication towers to minimize adverse impacts on bats and migratory birds.

## 16 – Range

### Goal 16.1 – Range Management

Permit livestock grazing to:

- Facilitate land acquisition by permitting current use by livestock
- Contribute to wildlife habitat objectives
- Help control non-native species.

#### Standards/Guidelines for Range

**SFW-RANGE-1:** Limit grazing to existing suitable open land. Neither woodland nor brushland may be converted to rangeland.

**SFW-RANGE-2:** Require grazing pastures to be fenced.

**GFW-RANGE-3:** Grazing pastures should retain a minimum 4-inch stubble height to protect plant vigor, insure proper ground cover, and provide for wildlife forage needs.

**GFW-RANGE-4:** Use fencing and placement of salt to manage livestock access to lakes, ponds, rivers, streams springs, or wetlands to reduce adverse impacts to these resources. (GFW-ARR-2 will also apply.)

**GFW-RANGE-5:** Do not seed or plant non-native grasses to enhance forage for grazing.

**GFW-RANGE-6:** Forage for grazing will normally consist of native cool-season grasses. Consider planting native warm-season grasses on suitable areas to extend the grazing period and enhance wildlife habitat and visual quality.

**GFW-RANGE-7:** Apply lime or fertilizer primarily to enhance native grasses, establish legume or other wildlife forage or to maintain pasture. Apply lime or fertilizer according to soil test results from the specific area to be treated. Do not exceed the soil's nutrient retention capacity.

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## 17 – Facilities and Transportation System

### Goal 17.1 – Buildings and Structures

Provide safe, efficient facilities and related structures that meet the needs of Forest visitors.

**Objective 17.1a** – Conduct detailed inspections of facilities every five years, more often if needed.

**Objective 17.1b** – Decommission facilities that are no longer needed.

### Goal 17.2 – Safety and Effectiveness of Dams

Maintain dams as safe and effective water storage facilities.

**Objective 17.2a** – Maintain dams to standard.

**Objective 17.2b** – Inspect high hazard dams annually.

**Objective 17.2c** – Decommissioned or appropriately dispose of dams no longer needed.

### Goal 17.3 – Transportation System

In cooperation with local, State, and Federal government agencies, provide a safe, efficient transportation system for moving people, equipment, and forest products.

**Objective 17.3a** – Reduce sedimentation and improve passage for aquatic and semi-aquatic organisms at Forest development road stream crossings and Forest Service recreation trail stream crossings.

**Objective 17.3b** – Decommission temporary and system roads when they are no longer needed for administration of the Forest or its resources.

**Objective 17.3c** – Maintain all roads in a condition that protects the government's investment. If funds do not allow for regular preventive maintenance, close roads or restrict traffic to protect resources or investment.<sup>1</sup>

**Objective 17.3d** – Maintain at Maintenance Level 3, or higher, roads intended for passenger vehicles.<sup>1</sup>

**Objective 17.3e** – Maintain at Maintenance Level 2 roads intended for high clearance vehicles.<sup>1</sup>

**Objective 17.3f** – Maintain at Maintenance Level 1 roads that are closed to public travel.<sup>1</sup>

**Objective 17.3g** – Remove hazard trees along Forest development roads from September 15 to April 15.<sup>1</sup>

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<sup>1</sup> Numbering corrected 10/16/2008 by Administrative Correction # 1

## Standards / Guidelines for Facilities and Transportation System

### Facilities

**GFW-TRANS-1:** Design and construct facilities in accordance with the Built Environment Image Guide or the current most applicable publication.

**GFW-TRANS-2:** When purchasing lands that contain dam structures, require an engineering evaluation to determine if the facility will be accepted as part of the land agreement. Generally, do not accept dams in administrative class A or B (as detailed in FSM 7500 section) as part of land purchases.

**GFW-TRANS-3:** Regularly update emergency action plans for moderate- and high-hazard dams as needed to reflect current management and condition of the structure.

### Transportation System

**SFW-TRANS-4:** Allow motor vehicles licensed for travel on the State and Federal highways to use National Forest System roads at Maintenance Levels 2 to 5.

**GFW-TRANS-5:** Place load limits on roads that are susceptible to damage.

**SFW-TRANS-6:** All roads are closed to the public unless the Forest road atlas specifically lists them as Maintenance Level 2 to 5 (open to the public).

**GFW-TRANS-7:** Avoid co-locating motorized trails with Maintenance Level 2 to 5 roads.

**GFW-TRANS-8:** Avoid new road construction:

- Within 50 feet of OHV or pedestrian trails (except at crossings)
- Within riparian areas
- Within the filterstrips of streams and waterways, except for infrequent crossings
- On mechanically unstable soils.

**GFW-TRANS-9:** Require permit holders to install and maintain an appropriate physical barrier on special use roads to prevent unauthorized use. If special use roads remain in place without a barrier, the permit holder must reconstruct the road to Maintenance Level 3.

**GFW-TRANS-10:** New road construction should follow the design guidance provided in Appendix A of the Forest-wide Roads Analysis document.

**GFW-TRANS-11:** Use existing roads as an alternative to construction of new roads whenever possible.

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## 18 – Public Health and Safety

### Goal 18.1 – Law Enforcement

Highly trained, equipped, and visible law enforcement officers and Forest personnel contribute to safe and enjoyable experiences for visitors. Effective law enforcement protects public and employee safety, and public property.

**Objective 18.1a:** Prevent violations of law through:

- Education
- Information and regulatory signing
- Improved facilities
- Effective citing and prosecution of violations
- Public notice of prosecutions and penalties
- Presence of uniformed Forest Service personnel
- Working with cooperating agency law enforcement officials at times and locations of heavy public use.

**Objective 18.1b:** Focus law enforcement efforts on Forest priorities to reduce incidence of:

- Illegal OHV use
- Arson fires
- Trespass and timber theft
- Trash dumping.

**Objective 18.1c:** Establish cooperative law enforcement agreements with State and local agencies. Review and adjust cooperative law enforcement (CLE) agreements every five years. Annually review and adjust operating plans developed under these agreements.

**Objective 18.1d:** Report violations of laws and regulations.

### Goal 18.2 – Public Health and Pollution Control

Prevent contamination of National Forest soil, water, and air resources.

Manage and mitigate known contaminated sites to protect public health and Forest resources.

**Objective 18.2a:** Ensure that water supplies and wastewater facilities meet relevant State and Federal laws.

**Objective 18.2b:** Promote public education campaign to prevent illegal dumping and debris disposal on public lands.

## Standards / Guidelines for Public Health and Safety

### General

**SFW-SAFE-1:** The Forest Service will:

- Enforce Federal laws and regulations relating to the WNF
- Cooperate with local and State law enforcement agencies in the enforcement of all State and local laws on lands within the WNF
- Aid in the enforcement of State laws concerning livestock, the prevention and extinguishing of wildland fires, and the protection of fish and wildlife; and on issues of dumping and motorized recreation as agreed to with State, County and local law enforcement agencies.
- Aid other Federal agencies in the performance of their duties as they relate to the WNF.

**SFW-SAFE-2:** Law enforcement will be an integral part of overall WNF management involving all Forest Service employees. It will consist of:

- Preventing, detecting, investigating, and reporting violations of laws and regulations, including those actions leading to criminal and civil proceedings
- Cooperating with and aiding other enforcement agencies in fulfilling their responsibilities
- Helping deter arson fires on both NFS and private land within the Fire Protection Boundary.

**SFW-SAFE-3:** Annually establish emphasis areas for law enforcement.

**SFW-SAFE-4:** Respond proportionately to the frequency, severity, and types of violations.

**SFW-SAFE-5:** Make all law enforcement contacts in a courteous and professional manner.

**SFW-SAFE-6:** Conduct enforcement actions in a manner that promotes better understanding of laws, regulations, and the need for compliance.

**SFW-SAFE-7:** Give high priority to educating Forest visitors and users of applicable laws and regulations as a means to reduce and prevent criminal violations.

**SFW-SAFE-8:** Use appropriate publicity to deter violations of laws and regulations.

**SFW-SAFE-9:** Plan, design, and engineer facilities to help prevent violations.

**SFW-SAFE-10:** Take action to discover and investigate violation of laws. Continue investigations until responsibility is established or until every reasonable lead has been exhausted. Bring responsible parties to account through appropriate criminal and/or civil action. Protect government interest through investigation of actual or potential claims.

**SFW-SAFE-11:** Cooperate with and aid local State, and Federal agencies in the fulfillment of their responsibilities. Make maximum use of cooperative law enforcement agreements (16 U.S.C. 551a).

**SFW-SAFE-12:** Review and adjust Cooperative Law Enforcement (CLE) agreements every five years. Annually review operating plans developed under these CLE agreements based on:

- Forest law enforcement needs
- Quality of service available
- Availability of funds.

**GFW-SAFE-13:** Apply recommended security measures that are cost efficient in relation to risk and value of potential loss at all facilities.

**GFW-SAFE-14:** Give priority to law enforcement patrols in high-use areas during peak periods.

**GFW-SAFE-15:** Emphasize curtailment of illegal off highway vehicle use with the help of cooperating law enforcement agencies. (36 CFR 261.13 and 36 CFR 261.56).

**GFW-SAFE-16:** Consistent with normally assigned duties, cooperate with and assist, as requested, the Ohio Department of Natural Resources in the enforcement of Ohio fish and game laws (36 CFR 261.8) and in the prevention of water pollution and littering on NFS lands and waters.

### **Hazardous Materials**

**SFW-SAFE-17:** Post warnings of dangerous conditions and threats of immediate concern for the safety of Forest employees and the public.

**SFW-SAFE-18:** Issue closure orders to protect the public when clear and present dangers cannot be mitigated in a timely manner.

**SFW-SAFE-19:** Prohibit disposal of non-Federal wastewater on Federal lands.

**GFW-SAFE-20:** Store fuels and other toxicants only when they are needed for ongoing management activities. Store and transport hazardous materials only in approved containers and facilities. Properly dispose of such items when no longer needed.

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