

**Pine Creek Historic Forest Vegetation Management Project
Decision Notice - Appendix One**

Table 2-1: Actions by Alternative				
August 8, 2007	1 NO Action	2 Proposed Harvest Burn Both Manual & Herb Trmt	3 Harvest NO BURNING Manual & Herbicide Trmt	4 NO HARVEST Burn No Herbicides Manual Trmt
Hardwood Treatment		2,309	2,309	0
Prescribed Burn		2,875		2,875
Burn harvested stands		1,092		
Burn other		1783		2,875
Fire line				
Roads used as fire line		12.4		12.4
Trails used as fire line		6.9		6.9
Streams used as fire line		1.2		1.2
New handline		3.8		3.8
Total		24.4		24.4
Mid-story treatment		3,068	3,068	3,068
Herbicide		1,036	2,761	
Manual		2,032	307	3,068
TSI in young stands		1,677	1,677	1,677
Mechanical (cut)		839	839	1,677
Herbicide (basal stem)		838	838	0
NNIS treatment				
Herbicide		199	199	199
Mechanical		41	41	41
Biological				
Treatment in native pine				
Regenerate native pine to hdwd		60	60	0
Thinning in white pine plantations		64	63	0
Roads used by project				
County roads		5.7 miles	5.7 miles	
Township roads		1.2 miles	1.2 miles	
FS System		12.5 miles	12.5 miles	
FS System + ORV Trail		5.4 miles	5.4 miles	
ORV Trail		.4 miles	.4 miles	
Unclassified		.8 miles	.8 miles	
New Temp road construction		1.0 miles	1.0 miles	
Landings (1/3 acre each)		Number = 46	Number = 46	
Skid roads (see PF 4-5)		Ac. 15 Miles = 48 Acres = 71	Ac = 15 Miles = 48 Acres = 71	
Waterholes		# = 100	# = 100	
Visitor parking areas		# = 8 Acres =	# = 8 Acres =	

Decision Notice Appendix One

In addition to all applicable standards and guidelines from the 2006 Forest Plan, the following design criteria have been incorporated into this project's design. A protection measure which is site specific is a mitigation.

Standards and Guidelines from 2006 WNF Forest Plan

All standards and guidelines from Chapter Two of the 2006 Forest Plan would apply as appropriate to any management activity. Following are more specific guidelines pertaining to the purpose and need and protection of habitats and individual species for this project.

The following are specific guidelines to determine which trees to designate for harvesting and which to retain. Trees with residual tree characteristics can be selected for harvesting to meet the desired basal area when trees not meeting the desired future condition have been selected.

Characteristics of trees that do not meet the DFC

- Live trees with 50 % or less crown.
- Suppressed or intermediate crown class
- Marketable, sound dead trees, standing or on ground
- Poor form & poor stem quality, including crooked or leaning trees
- Significant decay affecting longevity of ten years
- Non-preferred dominant species based on ELTP alliance
- Shorter lived species (scarlet oak, black oak, blackgum, red maple, etc.)
- Excessive epicormic branching on bole (an indication of high stress / poor longevity)

Characteristics of Residual Trees

- Dominant & co-dominant crown class
- Full healthy crowns
- Good form and good stem quality
- Minimal amount of decay
- Dominant forest species favored on the ELTP alliances.
- Trees with Indiana Bat characteristics. These trees generally are hollow, have major splits, have broken tops, or have large areas of loose bark. (See IB tree characteristics)
- Shagbark & shellbark hickory
- Uncommon species (butternut, fringe tree, southern red oak)
- Trees with dens or raptor nests
- Standing dead trees meeting the characteristics of retention for IB.

Guidelines for Individual Tree Selection

To achieve the goals of the project, mark the following trees that appear to have enough merchantable value to be cost-effective to be removed:

- Poor Crown Condition
- Trees on the forest floor that are over 6 inches in diameter
- Trees along access routes or log landings
- Trees clearly presenting a safety hazard to crews working in the area.
- Trees with heavy defect and/or low-vigor that would die within the next ten years or have significant increase in decay, affecting the biological life of the tree.

Additional guidelines for marking:

- Salvage merchantable standing dead trees, retaining an average of 8 per acre.
- Thin from below after above considerations are made.
- Leave a satisfactory residual stand with an average minimum basal area of 55 sq. ft./acre on upland and dry-mesic sites and 70 sq. ft./acre on mesic and rich-mesic sites. Initial harvests may vary from these figures in order to salvage trees not expected to occupy the canopy beyond the initial ten year timeframe of historic forest restoration.
- Avoid cutting pulpwood and/or smaller sawtimber (less than 13" dbh) meeting the DFC species for the associated ELTP alliance.
- Release all known American chestnut tree sprouts to maintain the germ-plasm on the landscape.

Group Selection System

Guidelines for small group openings

Select groups where there is a pocket of short-lived species. There are pockets of black oak, scarlet oak, and chestnut oaks which are nearing the end of their rotation age and would provide an opportunity to create a small gap. Create larger gaps up to two acres in areas where there is a preponderance of short-lived or severely damaged trees.

- Keep the basal area around the group higher to not lose the uneven-aged characteristic.
- Limit the number of groups along major travel corridors
- Locate groups as possible in areas of log landings and where several skid trails collect.
- Commercial Thinning

Soil and Water

Standards and Guidelines for soil and water protection.

1. 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 , measures 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.
2. 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.
 3. GFW-ARR-8: Design stream crossings to be at right angles
 4. SFW-ARR-10: Do not allow roads, trails, or log skidding within streambeds except at designated crossings.

Design Criteria Applied to All Action Alternatives

All new construction and/or reconstruction for roads and trails that results in barren soils on side slopes should be seeded and mulched within 14 days of the disturbance. This measure will ensure that soil transport during storm events would be minimized. Additional recommendations, based on site specific field visits with Stephen J. Hamilton, Soil Scientist, Division of Soil and Water Conservation, are described below. Mr. Hamilton's recommendations have been provided to the project file (Project File 7-2). Guidance for these criteria is found in GFW-WSH-10 and 11.

- 1) Slope in this area is the number one consideration because skid trails can hold water and cause slippage.
- 2) Look for breaks and benches and place skid trails in these areas.
- 3) When locating skid trails, avoid slopes with evidence of landslides.
- 4) Place log landings on soils with a sandstone base, particularly the Steinsburg and Gilpin units.
- 5) Plan to use stone where rutting potential is high for both roads and skid trails.
- 6) Keep equipment on slopes less than 40%.
- 7) Keep skid trails on level benches.
- 8) Any disturbance on a 25% or greater slope will be seeded and mulched within 24 hours of the cut.

Smoke Management

Based on standards and guidelines GFW-FIRE-6, and GFW-AIR-1 through 4:

- Public notification will take place prior to ignition of the burn by WNF employees.
- Public residences within close proximity to the burn area will be notified both before the burn and the day of the burn. They will be provided with information on prescribed burning as well as information on how to minimize impacts. WNF employees will ask each household if any resident within the house has health problems that may be impacted by smoke emissions in the area. If there is a resident that has health-related issues in close proximity to the burn unit, the WNF may give the option to stay in a hotel during the day of the burn.
- County Emergency Services will be notified the day of the burn, and the appropriate media will be contacted by the Forest Public Affairs Officer.
- The WNF will remain in compliance with the current Ohio EPA Open Burning Standard by meeting the standards set forth by the Ohio

Administrative Code Rule 3745-19-04 for Open Burning in Unrestricted Areas. WNF will use preferred meteorological conditions to ensure adequate smoke dispersion, taking into account the National Weather Service predicted winds, mixing heights, and atmospheric stability during the day of the burn.

- Burning will occur during the dormant season with biologist's concurrence and will conclude no later than 6:00 p.m. on any burning day. (SFW-TESS-4)

Site-specific mitigations:

- Smoke monitoring equipment will be placed down-wind of the burn unit in order to monitor smoke emission rates during the day of the burn, and the following 2-3 days after the burn.
- "Smoke Ahead" signs will also be located on roads surrounding the burn unit. In addition, smoke patrols will be conducted by vehicles on nearby public roadways to monitor smoke dispersal and visibility.

Wildlife

Standards and Guidelines

- Triclopyr (ester formulation) or surfactants used with glyphosate (terrestrial version) will not be applied within ephemeral, intermittent, or perennial stream corridors (as defined by GFW-ARR-1), or within 100 feet of lakes, ponds, or wetlands.
- Logging debris will generally not be left in streams or ponds, except to improve habitat for fish, turtles or other aquatic wildlife. Logging debris placement for wildlife habitat improvement will be coordinated with a Forest Service wildlife biologist.
- Prescribed fires should be planned when convection patterns would lift smoke relatively straight up, never allowing it to reach the vicinity of swarming sites or hibernacula; OR when winds are blowing from the west, south or east, which would push smoke away from the numerous portals located to the south, as well as known swarming sites and hibernacula. Coordination with biologists should occur prior to commencement of any burn to ensure that known or suspected hibernacula would not be jeopardized. The preparation of a burn plan is a normal procedure in a prescribed fire program and these design criteria should be incorporated into prescribed burn plans for this project.
- Firelines may not be constructed within 50 feet of rock outcrops unless necessary to protect human safety or to avoid excessive soil disturbance.
- Temporary roads, log landings, skid trails (to drag trees from woods to landing) and firelines will be located where soil disturbance and number of trees cut would be minimized.
- Avoid whenever possible burning during the bird nesting period (approximately May through July).

Site-specific mitigations implementing Goal 5.2 to promote conservation of RFSS:

- Contractors will be advised at pre-work meetings of the potential to encounter rattlesnakes and what steps he/she should take to avoid killing, harming, or harassing any individuals. Any sightings should be reported to a member of the Forest Service contracting team as soon as possible, no longer than one business day after the sighting. The Forest Service contracting team will then report the sighting to a Forest Service biologist immediately, if possible, and no later than one business day after the sighting is reported to them.
- Contractors shall report bear or bobcat sightings (individuals, prints, scat) to the Forest Service contracting team when discovered. The Forest Service contracting team will then report this to a Forest Service Biologist within one business day. In the event that a den is discovered, the contractor should stop all work within 700 feet of the den to avoid disturbance of the animal until the Forest Service determines that the work will no longer disturb the animal or den.
- If rattlesnakes are determined to be present in the project area, avoid conducting burns after mid-April or prior to mid-October within 700 feet of known or suspected den sites when rattlesnakes may be active. If any rattlesnakes are encountered during prescribed burn activities, every effort should be made to avoid the snake but protect it from fire, and any sightings should be reported to a Forest Service Biologist as soon as possible, and no longer than one day after the sighting. Avoid whenever possible burning during the bird nesting period (approximately May through July).
- Known four-toed salamander locations in prescribed burn units will be protected from prescribed fire activities. Protections may include surrounding known locations with a fireline, wetting surrounding vegetation before and during prescribed burn operations, or other measures deemed necessary, as determined by a Forest Service Biologist, to protect the individuals and their habitat.

Botany

Standards and Guidelines:

- Seeding and mulching activities to prevent erosion should be cleared with a Forest botanist in order to choose seed mixes of desired species, and mulches (e.g. straw) that minimize NNIS seed introductions (SFW-FH-10 and 11).
- To reduce the likelihood of new non-native invasive species (NNIS) introductions or spread of current infestations, it is recommended that all off-road equipment used for road construction, timber harvesting, pond construction and parking lot construction be cleaned of soil, seeds, vegetative matter or other debris that could hold seeds, before entering the project area (SFW-FH-8 and 9).

Specific project mitigations:

- If any access road locations are altered, these areas will be reviewed, as possible, by a botanist prior to construction. If rare species are found, the

botanist shall work with project and contract coordinators to determine appropriate mitigations or alternatives for construction sites.

- Treat stiltgrass infestations along skid roads, haul roads and fire lines prior to any timber or fire activities in order to reduce spread immediately after implementation. Running buffalo clover and Asiatic stiltgrass prefer similar habitats.
- Treat known infestations of tree-of-heaven and princess tree prior to or within 12 months of any timber or fire activities in order to reduce spread immediately after implementation.
- Do not cut any umbrella magnolia, butternut, fringe or Southern red oak trees.
- Consult with Botanist on the locations of state-listed plant species that should be avoided.

Herbicide Application

Herbicide treatments would follow all applicable federal and state laws and regulations and Forest Plan standards and guidelines (SFW-FH-17 through 26):

- 1) Applications would be supervised by a State-certified applicator.
- 2) No mechanized or aerial broadcast spray methods would be used. Only hand application methods would be used.
- 3) Riparian areas along all perennial, intermittent and ephemeral stream channels would not be treated with herbicides. Herbicide application would not be closer than 100 feet from all bodies of free or flowing surface water, unless the herbicide is approved for aquatic use.
- 4) Application equipment, empty herbicide containers, clothes worn during treatment, and contaminated skin would not be cleaned in open water or wells.
- 5) Mixing and cleaning water would be from a public water supply and be transported in separate labeled containers.
- 6) Herbicide mixing, loading or cleaning areas in the field would not be located within 200 feet of private land, open water or wells, or other sensitive areas.
- 7) Areas to be treated with herbicide will be signed for foot travel at access points.
- 8) Herbicides would be applied at the lowest rate effective in meeting project objectives. Application rate and work time would not exceed typical levels.

The revised provision reads as follows:

BT6.35 Equipment Cleaning Clause (for complete reference see Appendix 3, Botany BE, Project File 5-08.

- (a) Areas, known by Forest Service prior to timber sale advertisement, that are infested with invasive species of concern are shown on Sale Area Map. A current list of invasive species of concern and a map showing the extent of known infestations is available at the Forest Supervisor's Office.
- (b) Purchaser shall not move any Off-Road Equipment, which last operated in an area that is infested with one or more invasive species of concern onto Sale Area without first taken reasonable measures to make each such piece of equipment free of soil, seeds, vegetative matter, or other debris that could contain or hold seeds. Purchaser shall identify the location of the equipment's most recent

- operations. If the prior location of the Off-Road Equipment cannot be identified, Forest Service will assume that it is infested with seeds of invasive species of concern. In addition, prior to moving Off-Road Equipment from a cutting unit on this timber sale that is shown on Sale Area Map to be infested with invasive species of concern to any other unit that is indicated on Sale Area map as being free of invasive species of concern, Purchaser shall again take reasonable measures to make each such piece of equipment free of soil, seeds, vegetative matter, or other debris that could contain or hold seeds.
- (c) Purchaser must advise Forest Service of measures taken to clean Off-Road Equipment and arrange for Forest Service inspection prior to such equipment being placed in service or moved from cutting units infested with invasive species of concern to units that are free of such invasive species. Forest Service shall have 2 days, excluding weekends and Federal holidays, to inspect equipment after it has been made available for inspection. After inspection or after 2 days, Purchaser may proceed with operations. Reasonable measures shall not require the disassembly of equipment components or use of any specialized inspection tools. Equipment shall be considered free of soil, seeds, and other such debris when a visual inspection does not disclose such material.
 - (d) Off-Road Equipment includes all logging and construction machinery, except for log trucks, chip vans, service vehicles, water trucks, pickup trucks, cars, and similar vehicles.
 - (e) If Purchaser desires to clean Off-Road Equipment on National Forest land, such as at the end of a project or prior to moving to a new unit that is free of invasive species of concern, Purchaser and Forest Service shall agree on locations for the cleaning and control of off-site impacts, if any.
 - (f) New infestations of invasive species of concern to Forest Service, identified by either Purchaser or Forest Service on Sale Area, shall be promptly reported to the other party and operations shall be delayed or interrupted at that location, under BT8.33, until Purchaser and Forest Service agree on treatment methods.
 - (g) Nothing in this Subsection shall be interpreted as creating any warranty that all locations of invasive species of concern have been described herein, elsewhere in the contract, or designated on the ground.

Recreation

Site-specific mitigations

- To mitigate the delay in opening the new OHV trails as proposed in the Kosmos analysis, the logging operator needs to close and rehabilitate the roads that will be trails so they are narrow and curvy, not wide and straight. Operator will install drainage dips instead of waterbars.
- To mitigate the use of existing OHV trails, signs must be placed at each end of the impacted trail segments on the Lyra, Telegraph and Wolcott trails and at the trail heads notifying OHV riders of the trail closures during operations. Physical barriers will need to be placed in the trail during active timber harvest and prescribed burn activities.
- Upon completion of the harvest activities, the base and drainage of trails utilized during harvest activity will be restored as close as

possible to pre-harvest condition. This will include replacing the rock and gravel tread base that was in place for the trail segments prior to the harvest activities.

- To minimize the impact of logging operations on the operation of designated trails, skidding down the trail corridor will be minimized and done in agreement with the trail manager.

To minimize the impact of logging activities on the operation of the designated trails, the following requirements should be included in the contract specifications.

1. Skidding down the trail corridor is discouraged. As needed, trail crossing locations will be designated for skidding.
2. When cutting a unit which includes a designated trail, cut the area along the trail first so that the trail can be reopened while timber activities continue in the rest of that unit.
3. Slash must be removed from a zone five feet each side of the designated trail, and lopped and scattered to within two feet of the ground outside of that trailside zone. Lopped and scattered material should be allowed to form a blockage at the edge of the five foot slash-free zone to discourage motorized vehicles from leaving the designated trails.
4. Impacts will be lessened if prescribed burns take place between December 16 and April 14. If it is necessary to perform the prescribed burns during the OHV trail season, signs must be posted at trailheads and actual locations along the trails to show which trails are impacted and for what period they will need to be closed in order to complete the project. Fire lines intersecting with designated trails must be effectively blocked to discourage illegal OHV use of the fire line.
5. All roads constructed, reconstructed, or reopened for the proposed activities should be closed effectively to keep out illegal motorized vehicles.
6. Herbicide applications along designated trails during trail season must be coordinated with the District Recreation Manager to minimize the impact to trail riders.
7. If waterholes are to be constructed or located within view of the designated or proposed trails, construction plans should include fencing and signs to discourage ATV riders.
8. Piled logging slash around landings will discourage illegal ATV trails as well as provide potential wildlife habitat.
9. If the timber operation is scheduled when the trails are closed to OHV use, December 16 to April 14 annually, there would be less impact to the recreating public and reduce the potential conflicts.
10. If the timber harvest is started in the area that has the Telegraph trail passing through it, at the north end of project area, and is moved to the Lyra trail next and

then finish with the south end of the Wolcott trail and migrate to the north end of Wolcott, this could reduce the length of time the users will be impacted by the harvest activities.

Archeology

Flag the locations and boundaries of known significant heritage sites wherever possible prior to salvage or burning activities in order to protect these resources.

On-site monitoring of salvage and burning activities by a professional archaeologist (who meets the Secretary's Standards) to: a) protect and reduce adverse effects to heritage sites throughout the APE especially emphasizing areas of known heritage sites and also including newly identified heritage sites, b) record/document as appropriate newly identified sites, c) record/document observed site damage especially emphasizing significant heritage sites, and d) conduct selected post-harvest/post-burning investigations where feasible.