

Decision Memo

Butler County, Missouri
Poplar Bluff Ranger District,
Mark Twain National Forest
USDA-Forest Service

I. DECISION

I have decided to implement the Proposed Action to utilize thinning and burning for fuel reduction in an urban wildland intermix area of the Poplar Bluff Ranger District in Compartment 161 on 20 stands totaling an estimated 421 acres (See attached map and stand listing. **NOTE: for web viewers, the map and stand listing are those included in the original scoping package.**). Thinning would involve reducing the density of trees in the area to approximately 60-70 square feet per acre. Current density is over 100 square feet per acre. Prescribed burning treatments would entail using multiple, periodic controlled burns on an as needed basis over the next ten years to reduce and maintain fuel loading to an acceptable level.

Thinning and burning would be used to achieve the following objectives:

- Reduce risk of crown fire by eliminating or reducing the interconnection of pine tree crowns.
- Reduce fuel loading by removing, reducing, or consuming accumulated fuels.

Connected actions necessary to accomplish the proposal may include fire line construction, temporary road construction, and limited maintenance of existing roads (i.e., draining or gravelling mud holes).

The project area is located in Compartment 161, Township 25 North, Range 4 East, Sections 9, 22, and 27. This is an area that generally surrounds Beaver Lake, a dispersed recreation area on the Poplar Bluff Ranger District, Mark Twain National Forest.

This area is one of several areas on the Poplar Bluff Ranger District identified for pine fuel reduction treatments in "Category 2: Intermix Communities" as defined in the Federal Register Notice of January 4, 2001 regarding "*Urban Wildland Interface Communities Within the Vicinity of Federal Lands That Are at High Risk From Wildfire*". Urban Wildland Interface is defined as the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.

Homes occupied seasonally and year-round were constructed during the past few years near the project area. Development density ranges from structures very close together to one structure per 40 acres. An alternative definition of an intermix

community emphasizes a population density of between 28-250 people per square mile.

Prescribed burning activities will be implemented beginning in early 2005. Prescribed burning involves using a combination of hand, and sometimes aerial, ignition techniques to accomplish management objectives. Additional burning treatments over the course of the next ten years may be required based on fuel loading (See Attachment A for mitigation measures and monitoring procedures).

Prescribed burning will be implemented during winter or early spring 2005. Subsequent prescribed burns will be implemented generally on a three-year rotation cycle when conditions meet prescription parameters. The prescribed burn will include actions (Mitigation Measures, Attachment A) to minimize the potential for soil erosion, protect water quality, and mitigate other possible effects. Necessary man-made and natural firebreaks are essentially in place, such as roads and trails, and streams. Also, prescribed burns would be implemented only on days when atmospheric conditions are favorable for effective transport and dispersion of smoke and other particulate matter (Refer to the appropriate Forest Service Manual and Forest Service Handbook).

II. REASONS FOR CATEGORICALLY EXCLUDING THE DECISION

I have decided this decision may be categorically excluded from documentation in an environmental impact statement or environmental assessment as it falls within one of the categories identified by the U. S. Department of Agriculture in 7 CFR part 1b, and there are no extraordinary circumstances related to the decision that may result in a significant environmental effect.

A. Category of Exclusion

The Proposed Action falls within a category of actions established by the Chief of the Forest Service as routine actions that do not normally, in and of themselves, individually or cumulatively, have a significant effect on the quality of the human environment and, therefore, may be excluded from documentation in an environmental assessment. It does require a project or case file and decision memo (Forest Service Handbook 1909.15. They include: 1) Category 31.2{10}, "**Hazardous fuels reduction activities using prescribed fire, not to exceed 4,500 acres and mechanical methods for crushing, piling, pruning, cutting, chipping, mulching, and mowing not to exceed 1,000 acres**"; and 3) Category 31.2 {6}, "**Timber stand and/or wildlife habitat improvement activities which do not include the use of herbicides or do not require more than one mile of low standard road construction.**"

B. Relationship to Extraordinary Circumstances

1. Steep Slopes or Highly Erosive Soils.

There are no steep slopes or highly erosive soils. Topography in proposed treatment areas consists of rolling hills with moderate slopes of 10 to 40 percent conducive to the resource management activities included in the decision. Similar harvest and prescribed burning activities near this project area, conducted in the past, were determined to have no significant soil-related impacts since no heavy equipment will be used and mitigation measures will be implemented to deter significant soil-related impacts.

2. Threatened and Endangered Species or Their Critical Habitat.

The Endangered Species Act requires that federal activities do not jeopardize the continued existence of any species federally listed or proposed as threatened or endangered, or result in adverse modification to such species' designated critical habitat.

A determination has been made by the Poplar Bluff Ranger District Wildlife Biologist that, these actions will not have a direct, indirect or cumulative effect to the Bald eagle, Indiana bat, Gray bat, Pink mucket, Curtis' pearly mussel, Running buffalo clover or Hine's emerald dragon fly beyond those that were previously disclosed and discussed in the US Fish & Wildlife Service's Biological Opinion of June 23, 1999. On June 12, 2003, the US Fish & Wildlife Service concurred with that determination. This is documented in the Federal Biological Evaluation and concurrence letter (Project File).

3. Floodplains, Wetlands, or Municipal Watersheds.

Floodplains: Executive Order 11988 requires avoiding adverse impacts associated with the occupancy and modification of floodplains. Floodplains are defined by this order as, "*... the lowland and relatively flat areas adjoining inland and coastal waters including flood prone areas of offshore islands, including at a minimum, that area subject to a one percent or greater chance of flooding in anyone year.*" Proposed resource management activities will not impair the function of any floodplains. Similar past projects near these areas have been determined to have had no significant floodplain-related impacts. Therefore, this decision should not result in significant floodplain-related impacts.

Wetlands: Executive Order 11990 directs us to avoid adverse impacts associated with destruction or modification of wetlands. *Wetlands are defined by this order as, "...areas inundated by surface or ground water with a frequency sufficient to support and under normal circumstances does or will support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction."* The project is not located in or near wetlands. Topographical map review, field

visits, and District records review support this determination. Therefore this decision will have no affect on wetlands.

Municipal Watersheds: Municipal watersheds are designated by Congress, and managed under multiple use prescriptions in forest plans. There are no congressionally designated municipal watersheds on the Forest. This decision will not affect municipal watersheds.

4. Congressionally Designated Areas –Wilderness. This decision, with impacts limited to the immediate area of activity, will not adversely affect any wilderness area. The nearest wilderness area is the Irish Wilderness, an estimated 50 miles southwest of the project area.

This project meets the State Air Quality Regulations (Forest Plan, p. IV -22). Similar past projects in this area were determined to have no significant impacts to the wilderness. This decision should not result in significant wilderness-related impacts.

Wilderness Study Areas

There are no Wilderness Study Areas on the Forest (Forest Plan FEIS, p. 111-23). This decision will not affect Wilderness Study Areas.

National Recreation Areas

There are no National Recreation Areas on the Forest. Therefore, this decision will not affect National Recreation Areas.

5. Inventoried Roadless Areas.

The project is not within an inventoried roadless area (Forest Service Roadless Area Conservation Final Environmental Impact Statement [FEIS]). Therefore, this decision will not result in inventoried roadless area-related impacts.

6. Research Natural Areas. There are no Research Natural Areas on the Forest, (Forest Plan FEIS, p. 111-25,26.) This decision will not affect any Research Natural Areas.

7. Native American Religious or Cultural Sites, Archeological Sites, or Historic Properties or areas.

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effect of a project on any district, site, building, structure, or object that is included in, or eligible for inclusion in the National Register. Section 106 of the National Historic Preservation Act also requires federal agencies to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment. The Archaeological Resources Protection Act covers the discovery and protection of historic properties (prehistoric and historic) that

are excavated or discovered in federal lands. It affords lawful protection of archaeological resources and sites found on public and Indian lands.

The Native American Graves Protection and Repatriation Act covers the discovery and protection of Native American human remains and objects that are excavated or discovered in federal lands. It encourages avoidance of archaeological sites that contain burials or portions of sites that contain graves through "in situ" preservation, but may encompass other actions to preserve these remains and items. This decision complies with the cited Acts.

The Zone Archeologist has determined that this action does not have the potential to affect historic and unevaluated properties. The State Historic Preservation Office has concurred with the determination that the project "will have no adverse effect" on historic properties with mitigation measures applied (June 16, 2003).

III. PUBLIC INVOLVEMENT

Discussions were held with members of the Butler County Commission and Butler County Fire Department. A scoping letter detailing the project and requesting public input was mailed to individuals and organizations on the Poplar Bluff Ranger District mailing list on December 16, 2003. The project was also posted on the worldwide web. Three responses were received. The first commenter stated that he supported the thinning project, especially if some commercial products were realized from the thinning. He also stated that he felt that fire suppression efforts had not hindered the management of US Forest Service lands and did not see how fire suppression efforts would have impacted fire intervals in these stands. He further stated that he felt that the agency had to some degree created part of the fuel problem by favoring management of short-leaf pine, and that the agency should carefully review its pine management policy and consider reducing it. Lastly, he expressed support for some prescribed fire to reduce fuel loads in dense pine stands. These comments are considered outside the scope of this analysis. These comments are included and addressed in the Project File, as well as e-mail correspondence regarding the project.

Two organizations responded to the scoping letter in one consolidated response which both signed. Both commenters stated that the scoping document was unclear. They also stated that they sent multiple requests for clarification, but that the Forest Service refused to provide clear responses to specific questions. Also, the information was inaccurate. These comments are considered outside the scope of this analysis. These comments are included and addressed in the Project File, as well as e-mail correspondence regarding the project.

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All three commenters were concerned about the short (15 day) scoping period. In the past, the Poplar Bluff Ranger District requested comment on similar projects and received no new information and very little comment. My decision concerning the length of the scoping period was based upon: 1) the nature of the project, which is considered to be a normal, routine project that normally does not have significant environmental impacts; and 2) responses to previous scoping requests received regarding similar activities.

IV. FINDINGS RELATED TO OTHER LAWS AND REGULATIONS

This decision will comply with all applicable laws and regulations. I have summarized some below:

Forest Plan Consistency (National Forest Management Act) -This Act requires the development of long-range land and resource management plans for individual National Forests. The Mark Twain Forest Plan was approved on June 23, 1986, as required by this Act. The plan provides for guidance for all natural resource management activities on the Forest. The Act requires that all projects and activities be consistent with the Forest Plan. The Forest Plan has been reviewed in consideration of this project. This decision is responsive to guiding direction contained in the Plan, as summarized in this document in Section I, and is consistent with Plan Standards and Guidelines.

Vegetation Manipulation (National Forest Management Act) -This Act and its implementing regulations require that vegetation manipulation of tree cover for any purpose must comply with seven requirements found at 36 CFR 219.27(b).

1. **Be best suited to the goals in the Forest Plan.** The applicable goals are stated in the Section I of this document. This decision is responsive to those goals and is best suited to meet those goals.
2. **Assure that technology and knowledge exists to adequately restock lands within five years after treatment, except where permanent openings are created for wildlife habitat improvement, vistas, recreation uses, and similar practices.** Restocking is part of the restoration activities. The forested areas will become adequately stocked as a result of project implementation. Permanent openings are created for wildlife habitat improvement and for the other identified purposes. None are part of the proposal.
3. **Not to be chosen primarily because they give the greatest dollar return or the greatest output of timber (although these factors shall be considered).** This decision was based on a variety of reasons identified in Section I of this decision. It was not chosen for its expected dollar return. The project does not include any timber outputs.

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4. **Be chosen after considering potential effects on residual trees and adjacent stands.** The effects on residual trees and adjacent stands have been considered. The overall direction, and Standards, and Guidelines, described in the Forest Plan are designed to produce the desired effects of management practices on future resource values. This decision is consistent with the Forest Plan and is expected to produce the desired effect on residual and newly planted trees.
5. **Be selected to avoid permanent impairment of site productivity and to ensure conservation of soil and water resources.** This decision avoids permanent impairment of site productivity. The nature of the project and use of mitigation measures will protect soil and water resources.
6. **Be selected to provide the desired effects on water quality and quantity, wildlife and fish habitat, regeneration of desired tree species, forage production, recreation users, aesthetic values, and other resource yields.** This decision will produce the desired effect on the above resources. The overall direction and Standards and Guidelines contained in the Forest Plan are designed to produce the desired effects of management practices on the other resource values. This decision is consistent with the Forest Plan and produces the desired effect on the above resources.
7. **Be practical in terms of transportation and harvesting requirements and total costs of preparation, logging, and administration.** The project area is adequately roaded. No new permanent or temporary roads are necessary to implement this decision. The project does not include any timber harvest or logging operations. The treatment in this decision is appropriate to accomplish project objectives, and is economically practical.

Endangered Species Act - See Section II, Item B2 of this document.

Sensitive Species (Forest Service Manual 2670) -This Manual direction requires analysis of potential impacts to sensitive species, those species for which population viability is a concern. On February 29, 2000, the Regional Forester approved the sensitive species list. Potential effects of this decision on sensitive species have been analyzed and documented in a Biological Evaluation (Project File). This decision should have no adverse impact on sensitive species.

Clean Water Act -This Act is intended to help restore and maintain the integrity of waters. The Forest Service complies with this Act with the application of Best

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Management Practices (BMP's). This decision incorporates BMP's to ensure protection of soil and water resources, in compliance with this Act.

Wetlands (Executive Order 11990) - See Section II, Item B3 of this document.

Floodplains (Executive Order 11988) -See Section II, Item B3 of this document.

Clean Air Act - Under this Act, areas of the country were designated as Class I, II, or III airsheds for Prevention of Significant Deterioration purposes. Class I areas generally include national parks and wilderness areas. Class I provides the most protection to pristine lands by severely limiting the amount of additional human-caused air pollution that can be added to these areas. Hercules Glades Wilderness, an estimated 150 miles west of the project area, is the only Class I airshed on the Forest. The remainder of the Forest is classified as a Class II airshed. No areas on the Forest have been designated as Class III. The prescribed burn will not affect the Class I airshed because the wilderness is well over 100 miles to the west. Also, implementation will only occur when the wind direction – generally from the south - would disperse the smoke away from any major population areas. Prescribed burning activities will be coordinated with the State of Missouri, and follow the State Implementation Plan to protect air resources.

Federal Cave Resources Protection Act -This Act is intended to secure, protect, preserve, and maintain significant caves, to the extent practical. Site features and field review substantiates that there are no known caves in the decision area. Therefore, no known cave resources will be affected by this decision.

National Historic Preservation Act - See Section II, Item B7 of this document.

Archaeological Resources Protection Act - See Section II, Item B7 of this document.

Native American Graves Protection and Repatriation Act - See Section II, Item B7 of this document.

American Indian Religious Freedom Act - This Act protects American Indians' inherent right of the freedom to believe, express, and exercise their traditional religions. The federal government has trust responsibilities to Tribes under a government-to-government relationship to insure that the Tribes reserved rights are protected. No tribal concerns were identified for this project.

Environmental Justice (Executive Order 12898) - This Order requires consideration of whether projects would disproportionately impact minority or low-income populations. This decision complies with this Act. Public involvement occurred for this project, the results of which I have considered in this decision-making. Public involvement did not identify any adversely impacted local minority or

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low-income populations. Therefore, this decision will not adversely impact minority or low-income populations.

National Environmental Policy Act - This Act requires public involvement and consideration of potential environmental effects. The entirety of documentation and district records for this decision supports compliance with this Act.

V. ADMINISTRATIVE REVIEW OR APPEAL

This decision is not subject to appeal pursuant to 36 CFR 215.8(a)(4). It may be implemented immediately upon signing of this decision.

VI. IMPLEMENTATION DATE

The thinning treatments will be scheduled over the course of the next five years beginning in 2004, and prescribed burning treatments will be implemented over the next ten years on an as needed basis.

VII. CONTACT PERSON

Further information about this decision can be obtained from Bill Paxton, Integrated Resource Analyst, Poplar Bluff Ranger District, 1420 Maud Street, Poplar Bluff, Missouri 63901; (573) 785-1475; fax (573) 785-0267, e-mail bpaxton@fs.fed.us.

VI. SIGNATURE AND DATE

/s/ Don Fish _____
DON FISH
Acting District Ranger

February 26, 2004
Date

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Attachment A Mitigation Measures

Cultural Resources

1. Fire Lines

(a) Generally, all archeological sites will be avoided and protected. Archeological sites, if any, located along any existing roads which will be used as fire lines will be protected by hand-clearing those sections of the fire line that cross sites. Although most of the firelines will be cleared of combustible debris by small dozer and/or handtools, those sections crossing archeological sites will be cleared using leaf blowers and leaf rakes. There will be no removal of soil or disturbance below the ground surface during fire line cleaning.

(b) Use of creeks running through, or adjacent to, archeological sites, as firelines will not affect those archeological sites. No mitigation with the respect to fireline preparation is required.

(c) Archeological sites and features that may be located along proposed routes of dozer constructed fire lines, where roads do not now exist, will be avoided.

2. Unit Interior

(a) Combustible elements at any known archeological sites within the burn unit will be protected from damage during the prescribed burn by removing fuels from the feature vicinity, and, where necessary, by burning out an area around the feature prior to igniting the main burn. Burning out will be accomplished by constructing a set of two hand lines, 30 -50 feet apart around the feature and burning the area between the two lines, thus creating a fuel-free zone around the combustible elements. Photographs taken prior to the burn will also document the combustible features pre and post-burn.

(b) Those sites containing aboveground, non-combustible, cultural features and exposed artifacts will be protected by removing by handtools any concentrations of fuels that may have built up on the sites/features.

(c) No mitigation measures are proposed for any other sites, features, and isolated finds in the burn interior as it is expected that these will either not be harmed by this burn, or that they are ineligible for the National Register and so require no mitigation.

3. Adjacent to Fire Lines

(a) Those sites, if any, which may be adjacent to fire lines, but outside the burn unit, and which also contain either combustible materials, or above-ground features greater than 50 years of age, could be affected if the fire escapes in the vicinity of these sites.

4. If aerial ignition is employed

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- (a) Fuels will be raked away from wooden elements/features, if any, inside the black zone.
- (b) A "no drop" zone will be established around each site containing the wooden elements into which no balls will be dropped. The size of the "no drop" zone will be determined in consultation with the Forest's Fire Management Officer, the Burn Boss for each fire, and individuals with experience with aerial ignition on other Forests. It is expected that the zones will be approximately 200 to 500 feet in size.
- (c) Each archaeological site with wooden elements will be marked with a stake and ribbon streamers, so as to be clearly visible from the air.
- (d) The Ignition Boss in the helicopter will be provided with a map indicating the locations of the archaeological sites to be avoided and will be briefed on the sites and their locations prior to the burn.
- (e) There will be persons on the fireline near the archaeological sites that are located just outside the burn so that quick action can be taken to protect these sites should the burn escape the firelines. For safety reasons, there will not be persons stationed at the sites in the burn unit interior during aerial ignition.
- (f) An archeological specialist will be present at the safety briefing for ground and aerial crews.
- (g) A USFS District person will be assigned to any non-FS crew assigned to the prescribed burn.

Soil and Water

- (a) Firelines will be located on the ground by Forest Service personnel.
- (b) Fire line construction equipment operations will not be undertaken during wet periods to minimize potential for rutting and compaction.
- (c) Equipment will not use streams as roads.
- (d) Special attention will be focused on intermittent stream branches and floodplains.
- (e) Proper water control structures will be constructed and maintained on firelines before, during, and after the burn event.
- (f) All fireline slash will be placed on the downstream side of the fireline whenever possible to act as filter strips at each channel location.
- (g) All firelines will be monitored, and repaired and reseeded before the winter season as needed.

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(h) All areas of soil disturbance will be seeded with an approved noninvasive, nonexotic seed mix and fertilized as soon as possible after the prescribed burn is completed.

T & E Species

(a) Large snags (> or = to 16" dbh) will be protected from fire and smoke, unless they need to be removed for safety purposes.

Smoke Emissions/dilution/dispersion

(a) The burn will occur during favorable moisture and weather conditions.

(b) A backing fire will be utilized to reduce smoke production.

(c) Ignition will be completed on or around 1600 hours the date of the burn to reduce nighttime residual smoke.

(d) The prescribed burn will occur when the weather system is moderately unstable.

(e) Mixing heights will be greater than 1600 feet and transport winds at 3 mph or greater.

(f) Firing patterns will be established to generate enough heat for good lift.

(g) Ignition will be started early in the day to take advantage of atmospheric heating and updraft conditions.

Public and Firefighter Safety

The Prescribed Fire Complexity Rating (Project File) for this prescribed burn has been rated as "moderate risk" and "moderate technical difficulty".

(a) Traffic controllers will be located along forest system roads as necessary to minimize traffic problems during smoky conditions. This will be coordinated with State and local agencies as appropriate.

(b) The public, including adjacent and nearby landowners, will be informed of the planned prescribed burn days.

(c) Resources to handle any small slopovers and spot fires will be located on site. These resources would generally include from 11-13 personnel, as well as a John Deere 450 dozer, Type VI wildland Fire Engine, and, if available, Type III helicopter with water bucket and pilot. Additional resources, should the fire be declared a wildland fire, will be ordered through the Missouri Interagency Coordination Center. Standard procedures are identified in the Prescribed Burn Plan, Contingency Plan (Project File).

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Monitoring

Post-project monitoring will be conducted to determine whether or not prescribed burn objectives have been met. Post- monitoring will also be conducted at selected cultural resource sites to assess the actual effects of the burn on the sites, if any, against the expected effects. SHPO consultation will be carried out with respect to mitigation for any sites that suffer unexpected damage during the burn, or that suffer damage from indirect effects following the burn.

The prescribed burns, including all associated firelines, will be monitored over the course of the next growing season or next three months, whichever is greater, to ensure compliance with the above mitigation measures. Individual areas will also be monitored yearly to determine whether or resource management objectives are being met, and if additional treatments are necessary.