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PACIFIC WEST REGIONAL OFFICE Memorandum

L7617 (PWRO-P)

DEC 16 2004

Memorandum

To: Superintendent, Fort Clatsop National Memorial
(Lewis and Clark National Historical Park)

From: Regional Director, Pacific West Region

Subject: Environmental Compliance for the Fire Management Plan

The revised *Finding of No Significant Impact* for the fire management plan is approved. To complete this particular compliance effort, the park should provide notice of the decision to all individuals, agencies, and organizations that received the supporting environmental assessment.

A handwritten signature in cursive script, appearing to read "Jonathan B. Jarvis".

Jonathan B. Jarvis

Attachment

cc:
PWR-DDR

EXPERIENCE YOUR AMERICA

The National Park Service cares for special places saved by the American people so that all may experience our heritage.

Lewis and Clark National Historical Park
Fort Clatsop
Fire Management Plan – Environmental Assessment

Finding of No Significant Impact

INTRODUCTION

Fort Clatsop was established in May 29, 1958 “For the purpose of commemorating the culmination, and winter encampment, of the Lewis & Clark expedition following its successful crossing of the North American Continent”. In November 2004 Fort Clatsop National Memorial was reestablished as Lewis & Clark National Historical Park.

This FONSI is a statement of the decision made, the alternatives considered (including environmentally preferred), measures to minimize environmental harm, public involvement and agency coordination in the environmental decision making process, and basis for the decision.

The Department of the Interior, National Park Service (NPS), has prepared this Finding of No Significant Impact (FONSI) based on the programmatic Environmental Assessment (EA) prepared to analyze alternatives for a Fire Management Plan for the Fort Clatsop National Memorial. The Fire Management Plan for the Memorial must reflect new Federal Wildland and Prescribed Fire Management Policy Guidelines, with the associated changes of terminology and implementation procedures.

Projects not specifically identified and analyzed in the programmatic Fire Management Plan EA are subject to appropriate environmental compliance before implementation. Many issues will require continued coordination and consultation with managing partners and other interested parties.

PURPOSE AND NEED

A Wildland Fire Management Plan is required by the NPS Wildland Fire Management Guidelines (DO-18), which states: “All parks with vegetation that can sustain fire must have a Fire Management Plan.” A Fire Management Plan is a detailed description of strategies and actions intended to provide direction for the effective management of wildland and prescribed fire on a particular area of land. It is developed in accordance with the Federal Wildland Fire Management Policy and Program Review (USDI/USDA 1995).

The Fire Management Plan will serve as an operational guide for managing the Memorial’s wildland fire and prescribed fire programs. It will define the level of protection needed to ensure safety, protect facilities and resources, and restore and perpetuate natural processes.

NPS policy recognizes that fire is an important ecological and evolutionary force in many terrestrial ecosystems. The policy further states that fire will be managed to fulfill the need of protecting, perpetuating, or recreating natural environments or historic scenes. Fire management strategies for individual parks must be designed based on park management objectives. The resource management objectives of the park may determine whether a prescribed fire component is needed.

The Fire Management Plan will also address the Wildland Urban Interface issue. Some private lands border the Memorial and could be affected by NPS policy regarding the management of its forest fuels. The use of prescribed fire, along with mechanical means to reduce forest fuel loads, will reduce the risk for wildland fires moving onto adjacent private property. Also, fires that burn onto the Memorial from adjacent property will be easier to control.

The wildland fire management program is guided by resource management objectives for the Memorial. It must protect cultural resources and help perpetuate and assist in the restoration of the natural resources and their associated processes and systems. The preservation of natural and cultural resources within Fort Clatsop National Memorial is the fundamental requirement for its continued use and enjoyment by park visitors as a unit of the National Park System.

The Wildland Fire Management Plan for the Memorial includes the following objectives:

- Provide for firefighter and public safety. This is the first consideration and highest priority when implementing elements of the Fire Management Plan.
- Develop a systematic approach to dealing with wildland fires as well as the planning and implementation of prescribed fire projects.
- Promote interagency planning wherever possible.
- Include rehabilitation techniques and standards that comply with resource management plan objectives and mitigate safety threats.
- Develop a wildland fire prevention plan appropriate for the park.
- Develop a fuels analysis plan.
- Develop a risk analysis for projected wildland fires in the park.
- Prevent, where possible, all wildland fires from burning onto adjacent lands.
- To the extent possible considering the small size of the unit, provide for a natural role of fire in the ecosystem through the use of prescribed fires consistent with the protection of life, cultural/natural resources, air quality, property, and adjacent land values.
- Mechanically treat fuels, including thinning of trees, in preparation for the use of management-ignited fires or treatment of areas where management ignited fires are not deemed appropriate.
- Manage vegetation, through mechanical manipulation, to replicate a natural ecosystem.
- Develop a prescribed fire-monitoring plan.
- Respond appropriately to the needs of adjacent landowners regarding wildland urban interface needs.

SELECTED ACTION

Fort Clatsop National Memorial will implement Alternative B, identified as the action that best satisfies the Memorial's long-term management objectives. Under this alternative, the NPS will

have more management options at its disposal to manage the park's vegetative cover to maintain and/or restore natural and healthy conditions. Full suppression actions would be taken on all human/natural-caused wildland fires, mechanical treatment of vegetation would be performed and prescribed fire could be used for resource management purposes. All wildland fires would be suppressed as quickly as possible, while ensuring public and firefighter safety and protection of natural/cultural/historic resources and developments.

Prescribed fire would be used to:

Restore the natural landscape. Prescribed fire would be used to help enhance wildlife habitat, notably elk habitat, which was an important part of the landscape experienced by the Lewis and Clark party.

Treat forest fuels. Prescribed fire use would treat piles of woody debris resulting from forest restoration and hazardous fuel reduction projects.

Control unwanted vegetation. Prescribed fire could be applied to help control noxious weeds and exotic plants including reed canary grass, if determined to be effective.

Prescribed fire is defined by the National Wildfire Coordinating Group as: A management ignited wildland fire that burns under specified conditions where the fire is confined to a predetermined area and produces fire behavior and fire characteristics required to attain planned fire treatment and resource management objectives.

Prescribed fire would only be applied to achieve identified management objectives in the Fire Management Plan and only when prescribed conditions were met. A prescribed fire prescription includes measurable criteria that define conditions under which a prescribed fire may be ignited. Prescription criteria may include weather, specific control and holding forces, firing techniques, and timing. Measures will be taken in project implementation to protect cultural resources, sensitive plants and animals, and wildlife habitat.

Mechanical fuel treatment and vegetative management projects may be conducted to accomplish some objectives in the Memorial, including hazard fuel reduction and stand thinning. Mechanical methods include the use of chainsaws to fall, limb and buck trees. Handsaws and, or, power saws would be used to prune tree branches thereby reducing ladder fuels. Small size tractors or rubber tire skidders could be used to remove woody materials, or it may be chipped with a mechanical chipper and left on-site. Mechanical hazard fuel reduction would also be utilized around structures (including historic buildings) to provide defensible space should a wildland fire occur. Debris associated with these projects could be lopped and scattered, chipped and scattered, piled and left to deteriorate, or hauled off-site. This treatment may also be used around sensitive natural resources such as rare plant populations or cultural resources. Any mechanical equipment used would meet established requirements for protecting natural and cultural resources in the Memorial. There would be no new roads constructed for these purposes. This treatment may also be used to protect natural resources such as rare plant populations and cultural resources.

Some forest stands will require mechanical thinning to reduce the risk of catastrophic wildland fire. Such treatment would be designed to reduce fuel loading and ladder fuel continuity in project areas containing dense, small and suppressed trees. After treatment, wildland fires that do occur would be easier to suppress. Individual large snags will be retained where they don't pose a significant safety hazard and occasional untreated patches within the project areas will be left for wildlife habitat purposes.

MITIGATION MEASURES

The NPS will implement the following mitigation measures as part of the preferred alternative. These measures are designed to minimize impacts to natural and cultural resources.

Mitigation Measures

Mitigation	Critical Milestones	Responsible Party
Minimize impacts to cultural resources	<p>Measures will be incorporated to prevent adverse effects to cultural resources through avoidance. Conducting a cultural resource survey for each project and developing avoidance stipulations for cultural sites during the Section 106 process will accomplish this. These stipulations may include, but not be limited to, any of the following:</p> <ul style="list-style-type: none"> • Foaming of wooden structures and artifacts; • Clearing of brush around structures; • Restrictions on the use of heavy equipment on cultural sites; • Restrictions on the use of hand lines or other ground disturbing activities on cultural sites; • Preservation of brush and trees that cover features on cultural sites. • Monitoring by a cultural resource specialist who will be on-site during any ground disturbing activity. <p>If it were determined after further analysis and consultation that the cultural resources of a particular unit could not be adequately protected through implementation of the above or similar measures, then proposed activities would be substantially modified or cancelled. In the event that archeological or historic materials are discovered during project activities, work in the immediate vicinity will be discontinued, the area secured, and the State Historic Preservation Office (SHPO) the Historic Preservation Officer (THPO) notified as appropriate.</p>	Planning & Resources Management; Maintenance; Resource & Visitor Protection
Minimize impacts to sensitive species	<p>Adverse impacts will be mitigated through identification and, if necessary, avoidance of sensitive plant species in project planning and implementation.</p> <ul style="list-style-type: none"> • Areas scheduled for prescribed burns and mechanical 	Planning & Resources Management

Mitigation	Critical Milestones	Responsible Party
	<p>thinning will be surveyed for the presence of sensitive species. If found within the project area, the NPS will consider boundary adjustments or additional fire line construction within the project boundary to avoid areas of plant concentrations. Plots will be established to monitor effects on existing plants and the NPS will re-evaluate its implementation plans based on results of these efforts.</p> <ul style="list-style-type: none"> • To mitigate for potential impacts to winter roosting bald eagles, surveys of winter communal roosts will be conducted. Identified communal roosts will be avoided by establishing a buffer as recommended by the Pacific Bald Eagle Recovery Plan. If thinning activities occur within the buffer, they will be conducted outside of the winter roosting period. Prescriptions will include measures to reduce ladder fuels around the communal roost areas and remove small trees thereby freeing up resources for the remaining older growth roost trees and reducing potential wildland effects. Aircraft should use flight paths that avoid raptor nests, ie one-half mile from active nests and 1,300 feet above the canopy. • Information on threatened, endangered, or species of concern and their habitat should be available to fire staff through pre-suppression briefings, maps with areas of concern shown, and species management plans. 	
Minimize impacts to air quality	Prescribed fires will only be conducted when optimal smoke dispersion periods are present. Fuels will be adequately dried before burning to facilitate cleaner burns.	Resource & Visitor Protection
Minimize impacts to water quality	<p>If necessary, install water bars to prevent soil erosion on areas of soil disturbance. Avoid treatment near existing springs.</p> <p>Avoid using retardant with YPS (sodium ferrocyanide), and use the least toxic fire foams available.</p> <p>Avoid using chemicals when there is potential for water contamination.</p> <p>Keep retardant at least 300 feet from all water bodies.</p> <p>Drop retardant at least 200 feet above ground level to avoid damage to late-successional stages.</p>	Resource & Visitor Protection
Minimize impacts to soils	<p>Mechanical equipment such as tractors will not be used during wet periods when significant soil compaction cannot be avoided.</p> <p>Low ground pressure machines will be used in any skidding</p>	Resource & Visitor Protection; Maintenance

Mitigation	Critical Milestones	Responsible Party
	<p>operations. Skid trails will be designated before cutting operations begin. An integrated arch to lift one end of logs will be required. Skid trails will be mitigated after skidding operations</p> <p>Piles will be burned during the winter season to minimize soil temperatures.</p> <p>For Burned Area Emergency Rehabilitation (BAER) efforts, roads, trails, fire-line, and all stream crossings should be rehabilitated to pre-fire conditions with adequate drainage structures to prevent resource damage. Efforts should focus on damage done by fire suppression activities.</p>	
Minimize spread of noxious weeds	<p>In areas that require mechanical treatment prior to burning, noxious weeds will be surveyed to determine the extent of weeds present before ground disturbing activities are conducted. If found, measures will be implemented to help avoid spreading and increasing the abundance of the weeds. Measures such as regular cleaning of equipment, minimal ground disturbance, and avoidance of areas by equipment may be needed.</p>	Resource & Visitor Protection; Maintenance
Minimize impacts to wildlife and wildlife habitat	<p>Known raptor nest trees will be identified and protected during any mechanical treatment or prescribed burning. Waterfowl nesting areas will be identified and protected as part of project planning and implementation. Snags will be left when determined to be not a safety hazard and occasional patches of untreated trees will be left for wildlife habitat needs</p> <p>For fire line construction, favor hand over machine-built methods in late-successional, riparian, and wet meadow habitats. Use historic line, existing skid trails, roads and trails, existing safety zones, and natural features as fuel breaks whenever possible, reducing the need to clear additional habitat.</p> <p>When felling trees for safety and to maintain the fire line, keep wood in large lengths. In riparian zones, consider dropping trees toward the water body to assist with bank stabilization and fish habitat enhancement.</p>	Planning & Resource Management; Resource & Visitor Protection; Maintenance

OTHER ALTERNATIVES CONSIDERED

In addition to the proposed action (as identified in the programmatic EA), a “no action” alternative was also examined. Under this alternative, the current policy of aggressive full

suppression of all wildland fires, regardless of cause, would continue. Prescribed fire would not be available as management tool to benefit natural resources.

Although a wider range of alternatives is sometimes presented when developing fire management strategies, analysis of issues identified during scoping led to the conclusion that no other alternatives were feasible at this time.

The critical decision under consideration in the EA is whether to use prescribed fire to help achieve resource management objectives. Thus, the range of alternatives was limited to the addition of prescribed fire as a management tool where determined to be appropriate or continuation of forest management without the use of prescribed fire.

Under either alternative, mechanical treatment of forest areas will likely be needed to achieve resource management objectives, regardless of whether prescribed fire is used.

BASIS FOR DECISION

After careful consideration of comments received throughout the conservation planning process, including comments on the EA, the selected action was determined as best accomplishing identified management goals and desired future conditions, without causing significant impacts. A summary of expected effects of the preferred alternative follows:

Air Quality

Air quality impacts in the form of smoke from wildland fires within the Memorial would generally be short term in nature. Because of the relatively small size of the Memorial, most wildland fires would be quickly suppressed.

Prescribed fires will only be conducted when optimal, or near-optimal, smoke dispersion periods are present leading to minor air quality impacts in the immediate area. In general, prescribed fires produce less smoke/emissions because they are carried out under less extreme conditions and burn less fuel than many wildland fires.

Prescribed fire use at the Memorial would help create forest conditions less likely to experience frequent wildland fires. Forest fuel loads would be reduced and fuel ladder situations decreased. This would cause direct and positive long term effects to air quality although the extent of the impacts would be slight since few wildland fires occur in the Memorial now.

Water Quality

The overall effect to water resources is positive in the short-term because of the immediate suppression of all wildland fire policy. The potential for negative impacts to water quality from

wildland fire suppression activities is small because of the long intervals between fires at the Memorial. There is a slight chance that soil disturbing equipment would be used during a wildland fire emergency situation to construct fire lines as part of the suppression strategy. If this were to occur, negative effects would generally be short-term in nature because of the ability of existing soils to heal relatively quickly. The potential for severe and long-lasting negative effects is very slight because of the concern the Park Service would have for cultural resources at the Memorial.

Direct effects to water quality from prescribed fire use may include increased water runoff causing soil erosion from the following activities:

- Removal of vegetation by prescribed fire use to improve wildlife habitat or to remove undesirable vegetation.
- Creation of hydrophobic conditions at pile burning sites.

Prescribed fire use is conducted under pre-determined conditions designed to minimize effects such as soil erosion. Therefore, negative effects to soils, and in turn water quality, from prescribed fire use is expected to be small. Pile burning would be conducted during conditions which would limit soil temperatures. Additional mitigating measures to protect soils and water quality are documented in the EA.

The selected alternative may eventually lead to the reduction of impacts of wildland fire on water quality. The resultant reduction of fuels with the use of prescribed fire will lead to smaller and lower intensity wildland fires in areas that have been treated.

The mechanical treatment of vegetation to reduce hazardous fuel situations, or to help restore historic vegetative conditions, could also impact soils and in-turn, water quality. Because of the sensitive nature of the cultural landscape at the Memorial, the Park Service would not likely permit the use of mechanical equipment having the potential to cause soil damage during vegetative treatment activities.

Soils

Since the strategy of the preferred alternative is immediate suppression of all wildland fires, the overall direct effect to soil from wildland fire suppression activities is positive in the short term. The long-term effect to soil is also positive as the fuel treatment program leads to less frequent and severe wildland fires, resulting in less impact from wildfire suppression activities.

The use of prescribed fire may reduce the risk of large and severe wildland fire in the long-term which would reduce the acute and long-term impacts to soils from suppression activities. This reduction will lead to a reduced need to use heavy equipment in an unplanned way on the landscape. Prescribed fires will be conducted in a way to avoid soil damage by any equipment use.

Vegetation

Prescribed fire use to dispose of hazardous fuels and vegetation removed to help restore historic conditions could have negative effects on soil quality which in turn could decrease soil productivity

and the ability to grow healthy vegetation. For these activities, forest materials removed would be piled and burned within the Memorial. Effects can be minimized by careful implementation of the burn plan and mitigation measures identified in Chapter 3. The main mitigation measure is to burn during conditions which would limit soil temperatures.

Prescribed fire use to improve elk habitat would have positive short-term benefits for native vegetation. Improving elk habitat helps meet one of the goals of the Management Plan for the Memorial. Elk served as an important food source for Expedition members during their stay at the Memorial site. Prescribed fire would also be used to help reduce unwanted vegetation such as reed canary grass. This would have long-term, positive effects to the Memorial creating more natural vegetative conditions, a goal of the Management Plan.

The mechanical treatment of vegetation to create more natural conditions and reduce hazardous fuels will have some long-term, positive effects on vegetation. Mechanical treatment will accelerate the restoration of the vegetative type existing during the Lewis and Clark stay at the Memorial site. The use of mechanical treatment methods to reduce hazardous fuels would serve to reduce the fuel load and extend the interval between large and severe wildland fires.

Wildlife and Fish

Stand replacing wildland fires cause severe and long-lasting effects to wildlife and fish habitat. The preferred alternative will decrease the potential for these large fires resulting in a positive effect for wildlife and fish.

The use of prescribed fire and mechanical treatment in the selected alternative will cause some minor direct negative effects to wildlife in the short term but will likely lead to over-all positive indirect effects in the long-term. There will be no noticeable effects to fish and fish habitat from prescribed fire or mechanical treatment activities.

Sensitive Species

No potential bald eagle roost or nest trees will be disturbed by actions under this alternative. Long-term improvements to riparian vegetation may enhance eagle habitat within the Memorial.

Because the strategy in the selected plan is immediate suppression of all wildland fires, the overall direct effect to federally listed species is mainly no-effect in the short term but it may lead to positive effects in the long-term for certain species dependent on old-growth habitat.

The use of prescribed fire and mechanical treatment for beneficial purposes may lead to fewer, severe wildland fires in the long-term which would be a positive effect to habitat for those sensitive species dependent on old growth for their survival.

Cultural Resources

Since the strategy in the selected plan is immediate suppression of all wildland fires, the overall direct effect to Cultural Resources is positive in the short term. The use of prescribed fire and

mechanical treatment for beneficial purposes may lead to fewer, severe wildland fires in the long-term which would be a positive effect to cultural resources.

Public Safety/Visitor Use

Long-term impacts on visitor use could diminish as hazard fuels are removed and wildland fires move from potential high intensity, long duration, to lower intensity, shorter duration events. The safety of visitors and park employees will improve as the potential for large fires decreases.

The reduction of fuel loads in the park will in turn decrease the risk of wildland fire spreading to adjacent private property (Wildland Urban Interface) and make it safer for people living next to the Memorial boundary in the long-term.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The alternative which causes the least damage to the cultural and biological environment and that best protects, preserves, and enhances resources was deemed to be Alternative B (identified and analyzed in the programmatic EA as the agency preferred alternative). Specifically, Alternative B is “environmentally preferred” because:

It includes the use of mechanical methods for the treatment of forest fuels where the use of prescribed fire would not be acceptable.

Fire, under prescribed conditions, is used as a natural tool to help reduce forest fuel loads and improve forest health, where appropriate.

Mitigation measures are included to help protect cultural resources, soil, air quality and sensitive plants and animals.

Overall, it best meets the purpose for Fort Clatsop National Memorial to preserve, conserve, and protect the integrity of natural, cultural, and scenic resources.

PUBLIC REVIEW AND CONSULTATION

Initial scoping for the programmatic Fire Management Plan EA was done internally to gather concerns and comments from National Park Service employees. Following that, a scoping letter explaining the Fire Management Plan and the EA process was sent to all park neighbors, partners and other agencies, including the Fish and Wildlife Service, Oregon Department of Forestry, Oregon DEQ and the state SHPO. Three letters were received from this first scoping letter. Issues raised included smoke management and how wildfires would be suppressed. All comments received were carefully reviewed in preparing the EA and re-considered by the NPS in the preparation of this FONSI.

A notice of availability for review of the environmental assessment/FMP was mailed to 36 interested parties on October 29, 2004. A 30 day public review and comment period began on

that date and ended on November 29. A public meeting was held at the Fort Clatsop National Memorial headquarters on November 9, 2004. Local newspapers and the radio station received copies of the EA and were notified about the location and time of the public meeting.

Approximately 10 people attended this meeting. Issues raised at the meeting generally related to the conditions under which prescribed fire might be used, the decision making process, how potential impacts to adjoining private lands would be taken into account, smoke management and advance notification of adjoining landowners. No formal responses from any agency or the public were received in the form of letters during the review and comment period.

IMPAIRMENT - The impacts potentially resulting from the selected action (Alternative B) will not impair any park resource or value necessary to fulfill specific purposes for which the park was established and is to be managed. The impacts documented in the EA will not affect resources or values key to the natural or cultural integrity of the park or alter opportunities for enjoyment of the park. This alternative with the identified mitigation will not impair park resources and will not violate the NPS Organic Act.

CONCLUSION - Based on the programmatic Environmental Assessment, the mitigation measures to reduce or eliminate impacts, and with due consideration of public comment and consultations completed, the NPS has determined that the selected plan is not a major federal action that would significantly affect the human environment. There are no adverse cumulative impacts or indirect effects foreseen. Therefore, an environmental impact statement will not be prepared, and the fire management plan action may be implemented subject to additional analysis and consultation as described herein.

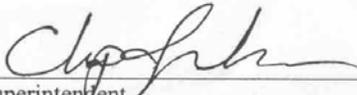
Recommended: _____ Date: _____
Superintendent
Fort Clatsop National Memorial

Approved: _____ Date: _____
Regional Director
Pacific West Region

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Recommended:  Date: 12/10/04
Superintendent
Fort Clatsop National Memorial

Approved:  Date: 12/16/04
Regional Director
Pacific West Region