

# **Finding of No Significant Impact/ Decision Notice**

## **Fire Management Program**

### **Allegheny Portage Railroad National Historic Site And Johnstown Flood National Memorial**

The National Park Service (NPS) has prepared an environmental assessment (EA) that evaluates potential impacts on cultural and natural resources associated with the development and implementation of a Fire Management Plan (FMP) for Allegheny Portage Railroad National Historic Site (ALPO) and Johnstown Flood National Memorial (JOFL). The EA was developed in order to ensure that Allegheny Portage Railroad National Historic Site and Johnstown Flood National Memorial fulfill the requirements of the National Environmental Policy Act of 1969 (NEPA) in regards to the implementation of actions described in National Park Service (NPS) Director's Order #18 (DO-18). DO-18 requires that each NPS unit capable of sustaining wildland fire develop a Fire Management Plan (FMP). Because wildland fires present a potential threat to park resources, National Park Service areas such as those found at Allegheny Portage Railroad National Historic Site and Johnstown Flood National Memorial must be able to define levels of wildland fire preparedness and develop procedural actions that provide for the protection of natural and cultural resources, park visitors, employees, and adjacent landowners. From a strictly fire suppression standpoint this is not an overly complex problem. However, from an ecological point of view, the absence of fire from current ecosystems at both Allegheny Portage Railroad National Historic Site and Johnstown Flood National Memorial has been partially responsible for a shift in the historical range of variability of some of the park's ecosystems. While neither of these parks have a strictly defined fire-dependent ecosystem, some changes have taken place to components of natural systems and cultural landscapes, which may be addressed through the thoughtful application of selected fire management-related techniques. Perhaps most noticeable is the manner in which the landscape has shifted from one characterized by the predominance of mature oak-hickory forests, combined with open meadows and fields, towards one dominated by forests of maple and mixed hardwoods, with diminishing occurrences of open fields and meadows. In addition, the presence of invasive species has further altered systems, often out-competing native vegetation, leading to reductions in their relative numbers or replacing them altogether. As a result, present-day landscapes do not represent those which would have existed during the historical time period of either of the parks. In addition, in some areas of the parks, forest structure has been altered to the point where forest fuels have accumulated to excess, creating unnatural build-ups of hazardous fuels. These fuels are present in quantities sufficient to promote the ignition and

propagation of wildland fires. Some of these fuel accumulations can be found in areas where values at risk are high. For example, there is potential for excessive fuel loading near historic structures and in areas where the protection of cultural scenes represents an important component of the parks historical setting. These areas are vital to the interpretation of the park's story to the public, and must be preserved. Boundary areas of the parks are especially susceptible to the accumulations of hazardous fuels. In those situations where a worst-case scenario was realized, a wildland fire, driven by high winds, drought conditions, and excessive fuels, could pose a potentially serious threat to human life and property, not only to resources inside of the parks, but to those outside as well.

A variety of fire management activities may be used individually or in combination to restore natural ecosystem processes, restore and maintain cultural scenes, protect cultural resources, reduce dangerous hazardous fuels, and enhance overall forest and ecosystem health. Methods used may include the use of prescribed fire, appropriate management response fire suppression, and non-fire hazardous fuel reduction. Within the applicable Environmental Assessment, all reasonable alternatives for the development and implementation of the Fire Management Plan were explored and the potential impacts were described in detail.

### **Background Discussion of Predominant Fire Management Strategies.**

In each of the alternatives that follow, predominant fire management strategies are discussed as they relate to operational implementation of each alternative. Because there are a limited number of strategies available, each alternative may be composed of a combination of strategies as defined in this section.

*Wildland fire suppression (aggressive)* – This strategy utilizes a variety of tactics in order to achieve control of a wildland fire in the most expeditious manner possible. Primary emphasis is upon limiting the fire to the smallest possible perimeter size. This may entail the use of mechanized equipment (dozers, tractor plows, engines, handcrews, and aerial resources that utilize retardants. A fireline, or area cleared to mineral soil and free of fuel, is often constructed around the perimeter of the fire.

*Wildland fire suppression (appropriate management response)* – This strategy employs tactics where fire suppression personnel utilize opportunities to allow fires to burn into areas where fuels are non-existent or reduced. As a result, the construction of fireline is often unnecessary. These types of areas are typically represented by pre-existing natural and man-made features on the landscape (i.e. streams, trails, roads, rockslides, riparian areas, or any area with light fuels). Their use often precludes the necessity of placing suppression personnel and equipment (referred to as suppression resources) in those areas where park values at risk may be damaged by their presence, thus preventing a situation

where more damage may be caused by suppression efforts than by the impacts of the wildland fire.

*Prescribed fire* – Fire intentionally ignited by fire management professionals under specific pre-determined conditions (a *prescription*) in order to meet specific objectives related to hazardous fuels or habitat improvement. A written, approved prescribed fire plan is prepared for each separate prescribed fire project application. This plan provides the information needed to implement an individual prescribed burn project, and includes measurable criteria, or prescriptions, that define the conditions under which a prescribed fire may be ignited, guides selection of appropriate management responses, and indicates other required actions. Criteria may include safety, economic, public health, environmental, geographic, administrative, social, or legal considerations, each of which is specific to the project being implemented.

*Prescription* – A pre-defined range of environmental variables that must be present in order for a prescribed fire to be implemented. (For example; ambient air temperature, relative humidity, fuel moisture, mixing heights, transport speeds, wind direction, fuel loading).

*Hazardous fuel reduction* – Hazardous fuels accumulations accrue through a variety of environmental processes. The most common is the natural accumulation of fuels over a long period of time, usually exacerbated by the total suppression of wildland fire. These accumulations can also be created through the cumulative action of such events as storm, wind, insect damage, and ice and snow. Heavy fuel loadings create a significant wildland fire hazard since any fires occurring in these areas burn with intensities and spread rates that often are beyond the capabilities of suppression personnel to effectively manage. In addition, fires of this type are much more prone to damage vegetation, soils, and forest resources through the intense heat they generate and the longer residence times they produce during the life of the fire. Fuel loading can be quantitatively measured and then reduced to safe levels through the use of a variety of techniques. Depending upon location and amount of excess fuel, manual hazard fuel reduction methods or prescribed fire may be utilized effectively, either individually or in combination. In addition, herbicide application may also be a part of the treatment regime. This process is referred to as *integrated fuels management*. For example, an extremely effective tool in the maintenance of some vegetation communities is the manual hazard fuel reduction and removal of excess fuel through hand-cutting, accompanied by application of low intensity prescribed fire. Hazardous fuel accumulations may also be manually cut, piled, and then burned when environmental conditions are favorable for their removal.

*Integrated Fuels Management* – See above (hazardous fuel reduction).

*Chemical treatments* – The use of herbicides to kill unwanted vegetation, such as invasive or woody species, is an effective treatment. These types of treatments

are often used as a follow-up to an application of prescribed fire or mechanical cutting in order to eliminate stump and root sprouting that may occur after initial treatment. For example, the use of prescribed fire to place stress on black locust (*Robinia pseudoacacia*) saplings, followed by a treatment of individual stumps with an appropriate herbicide, has been shown to be very effective in reducing the proliferation of this species. These types of uses are important management tools in those areas where the primary management objective is to maintain open vistas and protect earthworks for cultural scene preservation.

Herbicides may also be effectively used in a broadcast application to eliminate non-native species. Re-seeding with a desired species is then undertaken, and prescribed fire is applied in order to maintain and aid in the proliferation of the native species. This technique is most commonly used in the restoration of native warm season grass communities that occur in areas where the restoration of historic landscapes is a priority.

*Wildland Fire Use* – Natural ignitions (lightning) are allowed to burn under prescribed environmental conditions in order to meet park management objectives.

### **Selected Alternative**

#### **Alternative II – Appropriate Management Response and Integrated Fuels Management**

This alternative would allow for the preparation of a fire management plan that includes wildland fire management preparedness actions as well as detailed procedural actions during wildland fire events. In this alternative, the suppression of all wildland fire ignitions would utilize an appropriate management response. Firefighters would have the option to utilize those control activities that provided them with the best opportunity to suppress the fire, while at the same time allowing them the option to employ suppression strategies and tactics that minimized impacts upon park resources that might result from the suppression activities themselves. This alternative would also provide a detailed action plan for preparedness and suppression of wildland fires including the mitigation of impacts, safety, and resource protection. The use of prescribed fire, either individually or as a part of an integrated management approach, would be utilized to accomplish the full range of natural and cultural resource management and hazardous fuel reduction goals. All prescribed fires would be planned and approved consistent with the method and format required by RM-18. Wildland fire use would not be permitted.

This alternative would include the use of prescribed fire for the purpose of hazardous fuel reduction. The use of prescribed fire would reduce hazardous fuel loads that have accumulated in the absence of naturally occurring fires and decrease the likelihood of a catastrophic wildland fire that presents a potential

danger to human life as well as park/private resources. In those years when drought is present, the likelihood of a human – caused wildland fire is increased significantly. In those areas where fuel loads are outside the normal range of conditions (~14 – 25 tons/acre for deciduous and mixed deciduous forest fuels), but manageable through the use of prescribed fire, a return interval of 5 -10 years is recommended for the treatment interval. Prescribed fire will be implemented in such a manner that only ground fuels will be consumed, with little or no ignition occurring in the crown structure of the forest. In those areas where fuel loading is heavier (~26+ tons/acre), particularly near structures, non-fire (manual) reduction methods will be utilized to reduce fuel loading. Where access is available, fuels will be removed and disposed of by removing them from the site. In those areas where access is limited, piles of cut debris will be constructed for burning at an opportune time. Generally this occurs during the winter months when the ground is snow covered or wet from winter precipitation, temperatures are low, and winds are minimal.

The use of prescribed fire to achieve resource benefits and cultural scene preservation will be confined to the restoration and maintenance of native herbaceous and warm-season grasses (the lakebed and open fields at JOFL for example) as well as selected hardwood forest remnants that are found in several areas of ALPO. It will also be used as a part of an integrated management approach to reduce invasive species in those areas where treatment is indicated. The presence of herbaceous species and warm season native grasses is an important component of the historic scene and also serves as nesting habitat for birds and insects. Treatments with prescribed fire, applied at the appropriate time of the year, usually in the early spring on a 1-3 year rotation, have been shown to be effective to propagating these species and increasing the density of existing populations. Hardwood forests in the parks, particularly those with a significant oak-hickory component, are believed to be very similar in structure to the forests that were present during the historical periods of each of the parks. As such, they are important historical and natural resource components of the parks and should be retained to the extent practicable. Promoting the rehabilitation and reproductive success of these remnant oak-hickory forests is a goal identified in the parks resource management plans. In addition, the promotion of oak-hickory forest/ woodland would help achieve the broad National Park Service goal of natural resource protection and preservation through the propagation of native vegetation species and promotion of natural ecological processes. The use of prescribed fire would help achieve these goals in a cost-effective, expeditious, and safe manner.

## **Alternatives Considered**

The Environmental Assessment analyzed five action alternatives. Two of the alternatives initially considered were dismissed as unfeasible for reasons discussed in the following section. The other alternatives considered are described below.

## **Alternative I - No Action**

This alternative would provide for a continuation of current fire program direction. Not only would this alternative not meet current NPS standards for development of a park fire management plan, but it would also allow the degradation of existing natural and cultural resources as well as providing opportunities for more serious wildland fire events to accrue through the accumulation of additional dead and down forest fuels and proliferation of more fire-prone pine forests. This alternative would suppress all wildland fire ignitions using the most expeditious means necessary (aggressive fire suppression). This could lead to suppression activities whereby more resource damage to cultural and natural resources would occur as a result of the suppression activity than from the impacts of the wildland fire. In the long run, the number and size of fires would most likely increase due to the presence of hazardous fuels accumulating in or near developed areas over time. The plan would not address any actions for the reduction of the accumulation of hazardous fuels, nor would it permit prescribed fire in order to meet resource management objectives. As a result, fire would not be returned to its natural role in park ecosystems and a continual degradation in forest and meadow composition and structure would take place. Wildlife that used these areas as habitat would also be affected. Under the guidance of an already approved plan for management of invasive vegetation, chemical treatments would still be used to meet management objectives in regards to invasive species, though these treatments would probably be less effective without the benefit of adjunctive treatments of prescribed fire.

## **Alternative III – Appropriate Management Response and Non-Fire Fuels Management**

The fire management program under this alternative would, as in Alternative II, suppress all wildland fire ignitions using the appropriate management response. It would also allow for the use of non-fire mechanical fuel reduction and the use of chemical herbicides, either individually or in combination, to achieve park cultural landscape, natural resource, and fuels management objectives. Prescribed fire would not be used in this alternative. The inability to use prescribed fire as a management tool would greatly limit the ability of park management to meet cultural and resource protection needs for reasons discussed in the selected alternative.

## **Alternative IV – Wildland Fire Use**

Under this alternative, a full range of available fire management strategies including appropriate management response, wildland fire use (the use of wildland fire ignitions to meet resource management objectives) and prescribed burning would be used. This alternative would also allow for the use of mechanical treatments and chemical herbicides. The implementation of this alternative was considered and rejected because it is not feasible to safely

manage a wildland fire to achieve resource benefit with the limited size and staff of either of the parks (ALPO or JOFL).

### **Alternative V – No Management**

Under this alternative, all unscheduled wildland fire ignitions (lightning) would be allowed to burn unimpeded by management actions until the objectives were met. Prescribed fire, mechanical treatment of fuels and chemical herbicide use would not be utilized in this alternative. This alternative was considered and rejected because it could threaten the integrity of ALPO / JOFL cultural resources, cultural landscapes and natural resources. In addition, it does *not* ensure the safety of park visitors, employees or surrounding landowners.

### **Environmentally Preferred Alternative**

The environmentally preferred alternative is the alternative that will promote the national environmental policy as expressed in section 101 of the National Environmental Policy Act. This includes:

1. Fulfilling the responsibilities of each generation as trustee of the environment for succeeding generations;
2. Assuring for all generations safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
3. Attaining the widest range of beneficial uses of the environment without degradation, risk of health and safety, or other undesirable and unintended consequences;
4. Preserving important historic, cultural and natural aspects of our national heritage and maintaining, wherever possible, an environment that supports diversity and variety of individual choice;
5. Achieving a balance between population and resource use that will permit high standards of living and wide sharing of life's amenities; and
6. Enhancing the quality of renewable resources and approaching the maximum attainable recycling of depletable resources (National Environmental Policy Act, Section 101).

Simply put, "this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources".

The environmentally preferred alternative is **Alternative II – Appropriate Management Response and Integrated Fuels Management**. Alternative II as identified in the ALPO/ JOFL FMP/ EA meets all the criteria set forth in the preceding paragraphs and thus should be considered the environmentally preferred alternative. It surpasses Alternative I and Alternative III in realizing the full range of national environmental policy goals as stated in §101 of the National Environmental Policy Act. For example, the use of prescribed fire to enhance herbaceous and native warm season grass populations, treat invasive species, enhance oak hickory forest habitat, and reduce heavy fuel accumulations provides a clear advantage over the other alternatives that do not utilize techniques that most closely replicate natural processes. Manual methods of hazardous fuel reduction can be effective, but, in and of themselves they do not offer as many of the advantages as an application of scientifically applied prescribed fire. Careful application of prescribed fire is considerably more cost effective than manual hazardous fuel reduction, and can be applied in a manner that enhances the safety of the crews doing the work. The negative impacts of smoke from prescribed burns cannot be totally eliminated, but they can be directed and minimized through the use of a variety of implementation techniques that relate to time of ignition, the ignition pattern used, fuel moisture at the time of the burn, and adherence to the environmental parameters or prescriptions that relate to the height of convection column rise and dispersion of smoke and associated pollutants.

This alternative would provide for continued suppression of all unscheduled wildland fire ignitions with several key advantages over the other alternatives, primarily in areas relating to safety and resource protection/ preservation. This approach would allow managers to choose a suppression alternative that would minimize ground and vegetation disturbance activities, while at the same time extinguishing the fire. It would also provide the best alternative from a safety standpoint for suppression resources by allowing them the option of suppressing the fire in areas where the terrain was best suited to control activities. In this way, suppression resources could avoid steep terrain and heavy fuel accumulations; traditionally two areas that represent some of the most significant hazards to firefighters in almost every fire suppression effort. Generally, these hazards are manifested in the form of greater fire intensity (longer flame lengths), faster rates of spread (fires spreading faster than suppression crews can maneuver), and potential long-range spotting (embers being carried aloft over already established control lines). This alternative would also provide for use of prescribed fire, mechanical fuel reduction, and chemical herbicides, used individually or in combination (integrated fuels management), to achieve natural resource, cultural landscape and fuels management objectives. The wildland fire suppression operations as utilized in this alternative would ultimately provide for better protection of natural and cultural resources, health and safety of visitors, park neighbors and employees because of their ability to reduce hazardous fuel loadings in a proactive manner *before* a catastrophic wildfire event occurs. In addition, the natural and cultural resource values of the park are enhanced

through the use of prescribed fire to propagate native herbaceous and warm season grass populations and through improvement of oak – hickory forests in the parks. This alternative would satisfy each of the provisions of the national environmental policy goals. In addition, the environmentally preferred alternative incorporates the use of fire suppression strategies and tactics that allow for suppression of wildland fires while still allowing opportunities to utilize methods and techniques that minimize damage to cultural and natural resources. The use of prescribed fire is used to closely mimic the presence and effects of naturally occurring fire in those portions of the park where fire – dependent ecosystem components are found (such as oak-hickory forest, and native grassland meadows). The implementation of this alternative would provide for the most natural method of restoration and maintenance of open meadows, park forests, and the wildlife that inhabit them. In the long term, park cultural and natural resources would be protected in a manner consistent with section 101 of the National Environmental policy Act.

### **Alternatives Analyzed but *not* Meeting Criteria for the Environmentally Preferred Alternative.**

Of the alternatives analyzed in the EA, the following ***do not*** meet the criteria for inclusion as the environmentally preferred alternative for the following reasons:

***Alternative I - No Action*** would aggressively suppress all wildland fires. It would allow for an increased potential of ground disturbing activities during wildland fire suppression operations due to the impacts of the use of heavy equipment (bulldozers and tractor plows) used in aggressive suppression activities. Hand line construction by suppression crews also may lead to increased ground disturbance in this alternative. Additionally, since fires may be suppressed at their smallest size, fuel accumulations in un-burned areas of the park could be expected to build-up over time presenting a more serious threat in the long term. Therefore, this alternative does not meet criteria 1, 2 and 3 as well as Alternative II because it would not result in the same level of protection for natural and cultural resources and the public over the long-term. Additionally, the inability to use prescribed fire as a tool to reduce hazard fuel accumulations, and restore natural systems such as the oak-hickory forest and open meadows dominated by native warm-season grasses and forbs is an important ingredient missing from this alternative. Consequently, this alternative does not satisfy Provision 4 of NEPA Section 101.

***Alternative III - Appropriate Management Response and Non-Fire Fuels Management*** would provide some of the same advantageous elements as those described in Alternative II with one critical difference. While this alternative would be effective in suppressing wildland fires in the same manner as described for alternative II, it would rely solely upon non-fire methods for hazardous fuel reduction. As has already been discussed, these methods have proven to be partially effective in and of themselves, but are limited in scope and do little to

enhance species diversity. Prescribed fire, which mimics natural processes, has been shown to be very effective in enhancing vegetative diversity. However, the use of prescribed fire to achieve natural resource, cultural landscape and fuels management objectives would not be included in this alternative. Thus, this alternative excludes one of the best potential methods available for cultural and natural resource protection. Primarily due to the exclusion of prescribed fire as a management option, this alternative does not satisfy provisions 3, 4 and 6 of NEPA Section 101.

### **Mitigation Measures**

Fire suppression, the use of prescribed fire, non-fire hazardous fuel reduction, and vegetation management activities undertaken as a part of a fire management program all have the potential to impose impacts upon components of the ecosystem. Soils, vegetation, air quality, riparian resources, and wildlife may all be subject to impacts that are less than desirable. Although it is not possible to mitigate *every single* potential impact, the use of thoughtfully planned and implemented mitigation measures are integral to the implementation of an effective fire management program. They can be very effective in lessening the intensity of some impacts upon resources. Mitigation measures that are integral to the selected alternative are included in the attached table (see attachment 1).

### **Why the Selected Alternative will not have a Significant Effect on the Human Environment.**

As documented in the EA, the National Park Service has determined that the selected alternative can be implemented with no significant adverse impacts to vegetation, cultural resources, wetlands, floodplains, soils, wildlife habitat, socio-economic environment, firefighter and public safety, and air quality. The environmental impacts are summarized below.

#### **1. Impacts that may have both beneficial and adverse aspects and which on balance may be beneficial, but that may still have significant adverse impacts that require analysis in an EIS.**

The implementation of the selected alternative will not have a significant effect on the human environment as defined in 40 CFR 1508.27. The expected result of the implementation will be the improvement of the overall environmental condition of the parks, though not in a significant manner. As documented in the Environmental Assessment, the selected alternative would have minor impacts on some elements of the environment. The presence of smoke and the by-products of combustion, largely made up of air-borne particulates of various sizes and chemical configuration, have impacts upon air quality. While the presence of smoke cannot be totally eliminated, its impacts are relatively minor since they are of short duration and can be effectively mitigated through the diligent application of measures applied during the planning and implementation phases of wildland

fire operations. Impacts to vegetation and soils are also evident, though these too are minor. These impacts are generally confined to short term soil compaction and trampling of vegetation caused by the presence of crews performing manual and mechanized cutting and fuel removal. The use of techniques as described in Attachment 1, largely mitigate these short-term impacts. Other minor impacts that result from the implementation of the selected alternative may occur to wildlife, both avian and terrestrial. These impacts are short-lived and are linked to changes in vegetative structure that result from the implementation of the selected alternative. Since these impacts generally occur in small scale and at pre-selected areas of the parks, their overall impact is minimal. In addition, when possible, activities are scheduled at times of the year when impacts upon wildlife are minimized, ensuring that breeding and nesting are carried on without disturbance.

## **2. The degree to which public health and safety are affected.**

Public health and safety concerns for employees and visitors in the parks, as well as for those living adjacent to the park boundary, would be improved through the implementation of the selected alternative. This would be largely achieved through a program of hazardous fuel reduction, utilizing both prescribed fire and non-fire methods. These activities would be implemented in those areas where the greatest risk to human resources was present. In this way, the potential for the ignition of unwanted wildland fires would be greatly decreased, as also would the potential for a conflagration occurring should an unplanned ignition take place. Despite all of these benefits, there is always the potential for a prescribed fire exceeding projected intensity levels and escaping control lines. While the chances of this occurring are small, appropriate pre-planning and the development of alternatives outlining responses to such an event are found in the prescribed burn plan developed for each prescribed fire use. Prescriptions, or sets of environmental parameters, set maximum (and minimum) limits for fire behavior, and must be strictly adhered to during the planning and implementation phases of a prescribed burn. In this way, prescribed fire managers can avoid situations where extreme fire behavior occurs. It also allows prescribed fire planners to predict extreme fire behavior and plan accordingly; pre-staging suppression resources at critical locations, utilizing alternative ignition techniques that achieve desired results, and employing the use of natural and man-made barriers to fire spread.

Smoke produced as the result of un-wanted wildland fires or that result from prescribed fires can have impacts upon both human safety and health. These impacts are usually manifested in the form of visible smoke. Left unmitigated, it can present a serious hazard to drivers if it is allowed to drift across roads and highways, reducing visibility and obscuring the vision of drivers in traffic. Perhaps even more important are the invisible components of smoke; particulates and chemical by-products of the combustion process. Their presence directly affects those that must breathe the smoke-filled air. Some of these materials can have a

direct impact upon human health and safety by impairing breathing and oxygen exchange and exposing sensitive bodily systems to carcinogens. Overall, the impacts of smoke from wildland fires would be reduced due to the reduction of available fuels that result from the implementation of the selected alternative. Because the smoke produced from prescribed fires can be managed in terms of both intensity and location, only those locations and time periods in which smoke dispersion could be maximized would be selected for implementation activities. Direct impacts from prescribed fire smoke would be short lived, generally lasting from between 12 and 24 hours. Impacts of prescribed fire smoke can be effectively mitigated by a series of actions developed in the planning stage and implemented as a part of the prescribed fire treatment. By burning small units as opposed to a single larger unit, overall smoke production is minimized. Conducting prescribed burning with mixing heights greater than 500 meters and when transport winds are greater than 12 miles per hour ensures excellent smoke dispersion in the atmosphere. Designation of critical targets before implementation provides the opportunity to only use fire when wind direction is favorable. This protects those elements of society that may be especially prone to the deleterious effects of smoke; i.e. the aged, infirm, and those pre-disposed to lung disease. Once a prescribed fire has been implemented, rapid extinguishment of residual fire reduces smoke production within a very short time period. In some cases, the presence of large quantities of large diameter dead and downed fuels (such as logs) can increase the longevity with which residual fires burn. This can be prevented by pre-treatment removal of these types of fuels or otherwise isolating them from the fuel complex.

### **3. Any unique characteristics of the area (proximity to historic and cultural resources, wild and scenic rivers, ecologically critical areas, wetlands and floodplains, etc.)**

Allegheny Portage Railroad National Historic Site and Johnstown Flood National Memorial serve as important sanctuaries for both natural and cultural resources. As development occurs in areas immediately surrounding the parks, and the land base changes from one characterized primarily by agricultural and rural uses, to one of human development, both residential and industrial, the refuge that the parks provide for vegetation, wildlife, and other natural and cultural resources becomes increasingly important. The enabling legislation of each of the parks sets them aside as areas unique in both content and context. As a result of the implementation of the selected alternative, important cultural scenes would be restored to more closely approximate the appearance and structure they engendered during the historical time periods; those chosen as the benchmark for preservation. For example, prescribed fire would be used to restore and enhance open meadows (including the historic lakebed at JOFL) and elements of the historic oak-hickory forest (at ALPO); important components of the parks cultural scene. Restoration of selected meadow habitats with native herbaceous species and warm season grasses, primarily through the application of prescribed fire, is expected to enhance populations of grasses, forbs, and the

wildlife that utilize these areas for their feeding, breeding and other life activities. Short-term negative impacts would be almost totally aesthetic, and even those after-effects from fire would disappear with vegetative green-up after just a few weeks. In order to protect bird nesting and breeding, prescribed burns in the open meadow areas would only proceed prior to or after breeding and nesting have occurred. In forested areas, some trees would show the impacts of prescribed fire for a longer period of time, largely manifested in the form of scorch marks on trunks and blackened leaf litter that was not consumed by the fire. These results are largely cosmetic and have little or no impact upon the majority of mature hardwood tree species. Smaller trees and pole-sized saplings would be consumed entirely, or otherwise be killed by the effects of the fire. These impacts are desirable, as they reduce the density of these less than desirable species in the forest, allowing the more fire-resistant hardwood species to flourish. The restoration and maintenance of hardwood forests, particularly the remnant oak-hickory forests in the parks, will lead to greater species diversity and promote a forest ecosystem that is more fire tolerant and that supports systems indigenous to the parks. Some mature trees will probably be lost to old age and some may be manually cut in order to open the forest canopy and provide for more effective re-seeding in those areas where the canopy is removed. In this way, sunlight can reach the forest floor, thus expediting the regeneration process for new growth. These adverse impacts disappear completely within a few years of the initial treatment. The positive impacts that they provide are important contributors to many park species. For example, dead trees provide habitat for nest cavity species and serve as food resources for many others. The re-growth of succulent herbaceous vegetation provides an important food resource for some species, and occurs generally within a few weeks of having been treated with prescribed fire.

Historic structures and archeological sites would benefit from the removal of vegetation found in their immediate proximity. The removal of this vegetation would provide protection against the effects of flames and heat produced should the vegetation ignite as the result of an un-wanted wildland fire. Vegetation composition and structure would also be enhanced through a program of restorative prescribed fire. As a result, some short-term impacts would result from the use of prescribed fire (already discussed) as well some potential ground disturbance. The latter would primarily manifest itself in the form of soil compaction resulting from foot traffic imposed by fuel reduction crews and their associated activities such as the felling and bucking of dead, down, and live trees, and the cutting and removal of brush and ground cover. Some trampling of ground cover would occur, though this would be a very short-term impact that would be self-correcting, generally in just a few weeks. In more severe cases, re-seeding and erosion protection measures could be undertaken to mitigate impacts upon soil and vegetation.

The removal of invasive species is often difficult and time-consuming. It generally is one that requires a multi-faceted approach as a part of the restoration process,

involving manual removal, use of prescribed fire, and herbicide application. Some negative impacts can be expected to occur. This generally takes the form of an initial short-term increase in invasive populations, at least until the results of prescribed burning, manual reduction, and herbicides can be expected to take full effect, generally after several years. After this point in time, invasive populations can be expected to decline according to the scope and extent of the reduction program. In the interim, impacts from treatments and methods discussed can be expected to be short-term and minimal. The impacts and mitigation procedures for prescribed fire and non-fire manual reduction have previously been discussed, although the potential impacts of herbicide use have not. All uses of herbicides in the NPS must conform to the stringent application qualifications and procedures outline in NPS-77 (Resource Management Guideline). Application of herbicides only may occur in accordance with the application and mitigation measures outlined in the mentioned document. Since short-term applications of relatively benign herbicides are indicated, impacts produced are sufficient to assist in the reduction of invasives, but do not produce impacts that will have a significant effect on the environment.

Fire suppression operations as outlined in the selected alternative will pose a very minimal risk to either wetlands or floodplains. This occurs largely as the result of a combination of the avoidance of wetlands and floodplains during the planning process of both prescribed burns and wildland fire suppression, as well as by the natural characteristics of the fuels found in these specific areas. Most of the areas that comprise wetland and floodplain landforms and vegetation in the parks possess qualities that provide a natural resistance to fire. This is largely due to the presence of standing water, higher relative humidity, and vegetation types that are more succulent by virtue of their presence in a water-related environment. As a result, they generally are little affected by fire, since fires either go out altogether or burn at very low intensities. In those cases where fires do occur, vegetative growth readily occurs post-fire, aided by the presence of moisture, greatly reducing the potential for plant loss and/ or erosion along stream banks.

#### **4. The degree to which impacts are likely to be highly controversial.**

Impacts from the implementation of the selected alternative are unlikely to be highly controversial. This is largely due to the fact that the impact analysis has been based upon the best scientific knowledge available regarding fire management practices. Impacts that result from fire program management implementation are well documented and are part of a large body of scientific knowledge that has accumulated and been tested and refined across a wide range of users. The continued use and refinement of time-tested and established practices crosses interagency lines and currently includes access to world-wide resources and information. At the local level, the development and use of resource information gained through comprehensive inventory and monitoring of results has been critical to the ongoing evaluation and improvement of fire

management programs. The ability to predict outcomes and the nature and extent of impacts is reasonably assured as a result of these practices.

The pro-active approach through which the parks have undertaken the development and implementation of operational programs is a major contributing factor to the development and perpetuation of a non-controversial environment. Management activity has always been characterized by active participation from both the public and cooperating agencies. The development of a comprehensive fire management program that embraces planning and implementation between the parks and its cooperators is no exception. All activities relating to fire management, have been the result of closely coordinated efforts between the parks and her sister agencies and the public. For example, in both the internal scoping and public review process of the EA, no negative or questioning comments were received from the public or other agencies reference the development or implementation of the Allegheny Portage Railroad National Historic Site / Johnstown Flood National Memorial fire management plan.

**5. The degree to which the potential impacts are highly uncertain or involve unique or unknown risks.**

Prescribed burning and the use of non-fire methods of hazardous fuel reduction have been adequately addressed in NPS policy and implementation documents. The availability of detailed procedural and programmatic guidelines and policy make it highly unlikely that unique and/ or unknown risks will surface that have not already been adequately covered in great detail, In addition, a rigorous program of certification for individuals participating in the fire management program provide quality control at all levels of program development and implementation. Data on the impacts of fire on vegetation, soils, air, water, and wildlife has been painstakingly researched and collected. The requirement for a project-specific plan to be developed and approved prior to implementation, be it for non-fire or prescribed fire application, further serves as a buffer against uncertain or unique results or risk. For example, if during the planning process, environmental conditions exist that run contrary to those necessary to achieve desired results, implementation will not occur until environmental ( or social, political, etc) parameters fall within the acceptable range of values.

**6. Whether the action may establish a precedent for future actions with significant effects, or represents a decision in principle about a future consideration.**

The development of a fire management plan for Allegheny Portage Railroad National Historic Site/ Johnstown Flood National Memorial is done in response to a National Park Service requirement to have such a plan in place. It utilizes well established and universally accepted strategies for fire management. Therefore, the proposed action does not establish a precedent. With regard to the selection of Alternative II for implementation, as the process of natural and cultural

resource habitat and site restoration progresses, the need to apply components of the selected alternative occurs on a less frequent basis. As ecosystems in the park and cultural scenes are restored through time, the use of fire and non-fire methods becomes largely one of maintenance. While their use represents a commitment to the future, it is one of more widely spaced time interval treatment relating to maintenance rather than restoration. The effectiveness of monitoring programs specifically developed as a part of this alternative's implementation, allows management to make adjustments and fine tune treatments as actual results realized are compared to those results expected. In this way impacts are tracked and can be monitored along the entire continuum of a project's life.

**7. Whether the action is related to other actions that may have individual insignificant impacts but cumulatively significant effects. Significance cannot be avoided by terming an action temporary or breaking it down into small component parts.**

The present trend of development, both private and commercial, close to park boundaries, represents the potential for cumulative impacts upon cultural and natural resources. In the past, areas outside of the parks were generally characterized by rural, agricultural uses that were relatively consistent with the land-uses and rural character engendered by the parks. The major exception was the presence of extensive coal mining activity in and around the parks. But, even these areas have undergone changes whereby alternative land-uses, some still potentially in conflict with park purpose, are being sought for the land that was once productive for mining.

The development and implementation of a fire management plan, utilizing the selected alternative, allows park management the opportunity to directly protect, enhance, and restore park resources. By implementing a fire management plan that identifies potential cumulative impacts and integrates planning and implementation activities consistent with those relationships that exist between the impacts and the proposed action(s), park management has the opportunity to maximize protection of park cultural and natural resources. For example, in each of the parks there are areas along the boundary where accumulations of forest fuels have the potential to reach levels that may present an increased fire danger to both the park and public and private land. Since these areas are becoming more and more prone to human development of many different types, the potential for human ignitions of wildland fire is greatly increased. Through the use of an integrated management interagency approach using prescribed fire and non-fire (manual) fuel reduction (as identified in the preferred alternative), hazardous fuels can be largely eliminated both in and outside of the parks. In addition, the forest buffers in many boundary areas will be converted to a less fire-prone and more cultural-scene appropriate natural forest system of oak-hickory and hardwoods. Smoke production from prescribed fires in these areas may be heavy at times, but mitigation actions as described in previous paragraphs and the adherence to proper prescriptions (mixing heights, transport

wind speeds, wind direction, atmospheric instability, etc) will allow for dissipation of smoke and reduce the presence to a very short time period (12-24 hours). Most smoke will dissipate into the atmosphere at levels well above ground level. The parks may have to impose short-term closures in the designated burn areas in order to ensure the safety of visitors and the public. As a result, impacts are not significant in terms of their impacts upon park resources.

**8. The degree to which the action may adversely affect historic properties in or eligible for listing in the National Register of Historic Places, or other significant scientific, archeological, or cultural resources.**

Allegheny Portage Railroad National Historic Site and Johnstown Flood National Memorial were created through legislation designed to preserve the cultural and historical values of both the land and the structures now found within their respective park boundaries. No component of the selected alternative derogates the value or places at risk any of the known historic structures, archeological sites, or cultural scenes in the parks.

Allegheny Portage Railroad National Historic Site and Johnstown Flood National Memorial have a total of 28 structures of national significance; 25 of the structures are located at ALPO and 3 at JOFL. In 1992 Allegheny Portage Railroad National Historic Landmark Multiple Property Documentation was initiated by the Pennsylvania Historical and Museum Commission in a concentrated effort to update National Register documentation for these two parks. This was done primarily in order to identify and evaluate all extant resources related to the operation of the Allegheny Portage Railroad which still retain their integrity. While the Allegheny Portage Railroad and Staple Bend Tunnel are listed as National Historic Landmarks, significant resources within a National Historic Site, they lack adequate National Register/ National Historic Landmark documentation, precise boundaries, and a complete inventory. At Johnstown Flood there still exists the need for complete inventory for National Register documentation, even though the park has been designated a National Historic Landmark through inclusion on a National Park Survey of Historic Sites and Buildings. The National Park Service List of Classified Structures (LCS) has recently been updated and contains 42 classified structures at ALPO and ten at JOFL.

Prominent structures at ALPO are the Lemon House, Staple bend Tunnel, Engine House #6, the Skew Arch Bridge, the Portage Railroad Trace, Inclines 6-10 (and the resources associated with them), and a number of sites such as the Lemon Coal Mine, the Quarry, stone bridges and sleepers associated with the railroad, historic road traces, and other items such as culverts, retaining walls, and sub-surface archeological sites.

JOFL's primary resources consist of the South Fork Dam Ruins, Unger Farm (house, barn, and Springhouse), the lakebed, and various resources associated

with the site such as the, spillway and remnants of the old carriage road. The recent acquisition of four structures (P.L. 108-313 of October 13, 2004) including the historic clubhouse, annex, and two cottages of the former South Fork Fishing and Hunting Club, as well as associated acreage contained in the present day Village of Saint Michael, are all currently included in the National District Registry, There are a number of sites, road traces, and structures that are on the NPS List of Classified Structures, but are not presently documented for inclusion on the National Register.

The protection and enhancement of these values will be attained through the implementation of the preferred alternative. Hazardous fuels will be removed from the close proximity of structures and known archeological sites, cultural scenes will be restored, and there is a real possibility that new and as yet unknown sites may be discovered as covering vegetation is removed from areas where significant accumulations have developed over time. Non-fire methods of fuel reduction, such as hand cutting and pruning, may be used in those areas where cultural features might be too sensitive to utilize prescribed fire. Historic features (structures, earthworks, archeological sites) will be treated with these non-fire methods of fuel reduction in order to protect them from degradation, not only from un-wanted wildland fire, but from the deleterious impacts of vegetative encroachment. For example if left untreated, the root systems of saplings, pole-size, and mature trees, growing in proximity to or on earthworks and near historical structures, can cause severe and sometimes irreversible damage. The removal of large quantities of soil resulting from root-ball movement during storm events, and the intrusion of root systems into structures can all result in serious damage. Their removal through the methods indicated in the selected alternative will provide for the over-all protection of these resources. Negative impacts associated with removal of vegetation near cultural resources, largely resulting from compaction and foot-traffic, are negligible, short-lived, and therefore not significant.

**9. The degree to which an action may adversely affect an endangered or threatened species or its habitat.**

Other than an occasional transient species, there are no federally listed threatened or endangered species found in either park. However, communication between the parks and the U.S. Fish and Wildlife Service and the State of Pennsylvania Heritage Program will continue regarding species status in and around the parks. No adverse impacts are anticipated.

**10. Whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment.**

No activities earmarked in the selected alternative are in derogation of any federal, state, or local law or requirements imposed for the protection of the environment.

## **Impairment of Park Resources or Values**

The National Park Service Organic Act of 1916, as well as related laws and regulations, mandate that the units of the national park system must be managed in a way that leaves them “unimpaired for the enjoyment of future generations”. These laws and regulations give NPS the management discretion to allow certain impacts to park resources and values when necessary and appropriate to fulfill the purposes for which the park was established, so long as the impact does not constitute impairment of the affected resources and values. Director’s Order #12 states that environmental documents will evaluate and describe impacts that may constitute an impairment of park resources or values. In addition, the decision document will summarize impacts and whether or not such impacts may constitute an impairment of park resources or values. An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;
- Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or;
- Identified as a specific goal in the park’s general management plan or other relevant NPS planning documents.

The National Park Service has determined that implementation of the selected alternative will not constitute an impairment to either Allegheny Portage Railroad National Historic Site or Johnstown Flood National Memorial resources and/ or values. This conclusion is based upon a thorough analysis of the environmental impacts described in the Fire Management Plan (FMP)/ Environmental Assessment (EA), the comments received from the public and other agencies, relevant scientific studies, and the professional judgment of the decision-maker guided by the direction found in NPS Management Policies (2001). Although the ALPO/JOFL FMP EA has identified some negative impacts, in all cases these impacts are the result of actions taken in order to preserve and restore other park resources and values. Overall, the Allegheny Portage Railroad National Historic Site / Johnstown Flood National Memorial Fire Management Plan results in benefits to the parks resources and values, provides opportunities for their enjoyment, and does not result in any impairment.

## **Public Involvement**

Internal scoping, interdisciplinary team member meetings, and field tours were conducted at the Allegheny Portage Railroad National Historic Site/ Johnstown Flood National Memorial Headquarters during the time period March 1 through March 2, 2004. Staff specialists from the parks were present as were staff fire specialists from the National Park Service’s area office located at New River Gorge National River, West Virginia. Phone conversations with staff of the

Pennsylvania Department of Natural Resources, Bureau of Forestry, Forbes District, provided information regarding agency procedures relating to wildland fire response, fuels, and fire danger rating indices criteria.

A 45-day public comment period was provided for the EA. The comment period began on May 16, 2005 and ended on June 29, 2005. A variety of methods were utilized as a means to maximize public opportunity to comment on the Environmental Assessment.

- Public meetings were held in two locations with the intent of presenting the Environmental Assessment and soliciting comments and questions from the public. The first meeting was held at the Cresson Township Volunteer Fire Department on Tuesday, July 19<sup>th</sup> at 7:00 pm. The second meeting took place at the St. Michael Volunteer Fire Department on Wednesday, July 20<sup>th</sup> at 7:00 pm.
- A press release was prepared and distributed through three local and area newspapers. Public scoping letters were sent to a total of 47 respondents; including, the United States Fish and Wildlife Service, eight state agencies, fourteen agencies representing local and county governments, seven local organizations having an interest in park(s) operations, and twelve state and federal legislators.
- Thirty-two individuals received letters accompanied with a hard copy of the Environmental Assessment for their review and comment, including the Fire Chiefs of six local fire departments, Officials of the Pennsylvania Game Commission, U.S. Senators and Representatives from Pennsylvania, Pennsylvania State Senators, local County Commissioners and Township Officials, Pennsylvania Historical and Museum Commission (SHPO) (Section 106 of the Historic Preservation Act Department of Historic Preservation) and the U.S. Fish and Wildlife Service (Section 7 of the Endangered Species Act).
- Copies of the Environmental Assessment were placed in five local libraries for public review and comment.
- Copies of the Environmental Assessment were placed in the Visitor Centers of both Allegheny Portage Railroad National Historic Site and Johnstown Flood National Memorial. These copies were available for public review and comment.
- A copy of the Environmental Assessment was posted for review and comment on the National Park Service Planning, Environment, and Public Comment (PEPC) website during the time period. No comments were received.

A letter of response was received from the Pennsylvania Bureau for Historic Preservation (State Historic Preservation Office). The Bureau concurred with the choice of the preferred alternative for the Fire Management Plan. In their summation they remarked that the implementation of this alternative would result in the least impact to cultural resources (Attachment 3).

The U.S. Fish and Wildlife Service submitted a letter of comment regarding the Environmental Assessment for the Fire Management Plan and their responsibility pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 2531 *et seq.*) (Attachment 3). They confirm the fact that, except for an occasional transient species, no federally listed or proposed threatened or endangered species are known to occur within any of the proposed project areas for either of the parks. The letter stressed the fact that this status should be considered valid for a period of two years from the date of the response letter (August 12, 2005), and that after that point in time a further consultation with their office should occur.

The U.S. Fish and Wildlife Service response further affirmed the value of utilizing prescribed fire as an effective method to promote species diversity, controlling invasive species and invading woody shrubs and trees, eliminating dead vegetation and/ or hazard fuels, stimulating new plant growth, encouraging germination and returning nutrients to the soil. They also cautioned about the potential impacts that fire can have on aquatic life. Their recommendation in this regard was that prescribed burns not be implemented immediately adjacent to aquatic areas. However, if projects were undertaken in close proximity to aquatic resources, the use of appropriate fire breaks would help ensure the integrity of wetland and aquatic systems. The environmental assessment clearly delineates the boundaries of several prescribed burn units in close proximity to wetlands and aquatic resources, and, as described in the assessment, care will be taken to ensure that non-disruptive firelines (e.g. wetline) will be utilized as a buffer to protect wetland resources, particularly stream banks. Prescribed burns are planned and implemented at those times and locations where fire intensity and potential damage to streamside vegetation through run-off and sedimentation is virtually eliminated. Experience has shown that prescribed burns implemented at appropriate times of the year quickly re-vegetate through natural processes in a short time period, usually within a few days to a few weeks. In addition, because prescribed fire intensities are controlled, streamside litter layers are left in place largely intact. Specific protection measures regarding wetland resources will be outlined in the project-specific Prescribed Burn Plan prepared for each project. These plans will be submitted to the USFWS for their review and comment prior to the implementation of any prescribed burn.

In addition, the USFWS expressed their concern over the potential negative impacts that the use of herbicides might have upon wetlands and aquatic resources when used as a part of the wildland fire management program's integrated approach to vegetation management. As stated in the environmental

assessment, the use of herbicides in the National Park Service are governed by management policy as outlined in NPS-77. Consistent with the comments of the USFWS, the NPS also requires that herbicide use be confined to those uses where negative impacts upon environmental quality are minimized. In those situations where wetland resources are located in close proximity to wildland fire management projects that might involve the use of herbicides, aquatic formulations of glyphosate (such as Rodeo) or triclopyr (such as Renovate 3) will be utilized. The use of these herbicides is consistent with NPS policy, and their use is recommended for application in and around aquatic areas. As in the preceding paragraph, the proposed use of herbicides, whether individually or in combination with other fire management activities, will be addressed in detail in project specific prescribed or non-fire fuel management plans. Copies of these plans will be sent to the USFWS (and/ or other requesting agencies) for review and comment prior to project implementation.

A public meeting was held at the St. Michael, PA, Fire Hall on July 20, 2005. Two individuals attending that meeting submitted comments. The first, submitted by Mr. Bern Blazosky of St. Michael, PA, requested that the fire protection allocation be increased. Mr. Paul M. Kundrod of St. Michaels, PA, stated that he appreciated the assistance and cooperation of the National Park Service and that he looked forward to future projects.

A public meeting was held at the Cresson PA, Fire Hall on July 19, 2005. There were no comments or suggestions submitted as a result of this meeting.

Commonwealth of Pennsylvania Representative Jerry E. Stern of Harrisburg, PA, submitted a letter expressing his appreciation regarding the transmission of information to his office regarding the environmental impacts associated with the alternatives as described in the environmental assessment.

The Pennsylvania Department of Environmental Protection, Southwest Regional Office, submitted comments of a general nature relating to projects scheduled for implementation in the geographic area. Information and guidance was provided relating to project coordination in a number of subject areas including:

- Contact with the SHPO (already accomplished in EA)
- Species of Concern (already accomplished in EA)
- Utility and power transmission line location (if applicable)
- Open burning approvals (local)
- Oil and gas well contacts (if applicable)
- Soils and waterways (already accomplished in EA)
- Water supply management (if applicable)

Aside from the comments discussed in the previous paragraphs, no comments were received from the public or local agencies regarding the Environmental Assessment for the Fire Management Plan.

## Conclusion

The selected alternative will not constitute an action that normally requires preparation of an environmental impact statement (EIS). The selected alternative will not have a significant effect on the human environment. Negative environmental impacts that could occur are minor or moderate in intensity. There are no significant impacts on public health, public safety, threatened or endangered species, sites or districts listed in or eligible for listing in the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative impacts, or elements of precedence were identified. Implementation of the selected alternative will not violate any federal, state, or local environmental protection law.

Based upon the foregoing, it has been determined that an EIS is not required for this project and thus will not be prepared.

**Recommended:** \_\_\_\_\_  
Keith Newlin, Superintendent Date  
Allegheny Portage Railroad National Historic Site  
Johnstown Flood National Memorial

**Approved:** \_\_\_\_\_  
Mary A. Bomar Date  
Regional Director  
National Park Service  
Northeast Region

FONSI

**Conclusion**

The selected alternative will not constitute an action that normally requires preparation of an environmental impact statement (EIS). The selected alternative will not have a significant effect on the human environment. Negative environmental impacts that could occur are minor or moderate in intensity. There are no significant impacts on public health, public safety, threatened or endangered species, sites or districts listed in or eligible for listing in the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative impacts, or elements of precedence were identified. Implementation of the selected alternative will not violate any federal, state, or local environmental protection law.

Based upon the foregoing, it has been determined that an EIS is not required for this project and thus will not be prepared.

Recommended: Keith E Newlin 9/26/05  
Keith Newlin, Superintendent Date  
Allegheny Portage Railroad National Historic Site  
Johnstown Flood National Memorial

Approved: Mary A Bomar 10/27/05  
Mary A. Bomar Date  
Regional Director  
National Park Service  
Northeast Region

Program Component	Mitigation Measures
<b>Soil</b>	<b>MIST</b>
	<b>Re-seeding with native grasses</b> <b>Water/ foam/ vs. hand line</b> <b>Avoidance (where practicable)</b>
<b>Smoke</b>	<b>Time of ignition (favorable to burning)</b>
	<b>Burning small units vs. larger</b>
	<b>Ignition pattern (backing fire vs. head)</b>
	<b>Fuel moisture levels (low vs. high)</b>
	<b>Mixing heights &gt; 500 m</b>
	<b>Transport winds &gt; 12 mph</b>
	<b>Wind direction opposite critical targets</b>
	<b>Burn under unstable atmosphere</b>
	<b>Rapid extinguishment of fire (mop-up)</b>
	<b>Pre-identify critical targets/ areas of concern</b>
<b>Prescribed Fire</b>	<b>A comprehensive prescribed fire plan</b>
	<i>must</i> be developed and approved prior to implementation (includes all environmental factors, resource, and cultural factors present)
	<b>Pre-planned escape alternatives identified</b>
	<b>All involved personnel must have certified training</b>
<b>Safety</b>	<b>Personal Protective Equipment (PPE)</b>
	<b>Rotation of personnel for rest and reduction of risk exposure</b>
	<b>Burn during non-nesting/ breeding season</b>
<b>Wildlife</b>	<b>Treatment conducted after mast production occurs</b>
	<b>Burn mosaic patterns</b>
<b>Cultural</b>	<b>Appropriate Management Response</b>
	<b>MIST</b>
	<b>Plan for low intensity Rx fire</b>
	<b>Utilize water, foam, suppressants to protect prior to burn</b>
	<b>Avoidance (accurate GIS mapping)</b>
	<b>Cultural Resource Professional assigned to each project</b>
	<b>Ongoing communication with SHPO</b>
<b>Socio-economic</b>	<b>Pro-active education/ coordination among involved entities</b>

## Attachment 2. MINIMUM IMPACT SUPPRESSION TACTICS (MIST)

The change in emphasis from fire control to fire management has added a new perspective to the role of fire manager and firefighter. The old objective of putting the fire "dead-out", by a specified period of time has been replaced by the need to make unique decisions for each fire start, to consider the land and resource objectives, and to decide the appropriate management response and tactics which result in minimum costs and resource damage. Fire management activities within the park will be carried out in a manner that minimizes impacts to the park's natural and cultural resources. Incident facilities, when practical, will be located outside of natural and historic zones. Suppression forces will choose methods and equipment commensurate with suppression needs and a strategy that will least alter the landscape or disturb park resources. Of primary importance is the need to impress upon suppression forces the minimum impact suppression guidelines found in RM-18, Chapter 9. These guidelines take the park ethic into account in firefighting practices; they are not an excuse to relax normal safe firefighting practices. Techniques and policies of minimum impact firefighting that will be used in the park include (but are not limited to):

- a. Minimize use of retardant. The park's aquatic ecosystem requires protection for various reasons. The streams support a diverse fish population with state-listed species, plus some of the most diverse aquatic insect populations in the area. As a result, it will be standard practice to keep chemical retardant use at least 200 yards from any water source.
- b. Cold-trailing the fire edge when practical.
- c. Use of natural firebreaks or wet lines wherever possible (in lieu of handline construction). Water bars will be constructed on all hand lines on steep slopes (15%>).
- d. Use of soaker hose or foggers in mop-up to avoid "boring" and hydraulic action on soils.
- e. Fire lines kept to the minimum width needed to allow backfiring, burnout, or the creation of a safe black line. Natural barriers should be used wherever possible.
- f. Minimal tree-falling. Snags within or adjacent to fire lines will be removed only if they show evidence of fire, present hazard to firefighters, or constitute a legitimate threat to the fireline integrity. Living trees will be undisturbed whenever possible. Lower branches will be limbed whenever possible to remove ladder fuels rather than removing the tree.
- g. Maximize archeological protection measures in order to protect cultural resources.

- h. Debris scattered or removed as prescribed by the resource advisor.
- i. All fire lines, camps, or other disturbance in visually sensitive areas will be rehabilitated to maintain a natural appearance.
- j. After the fire emergency is over, transport of personnel, equipment, and trash out of the park that is consistent with park resource management objectives.
- k. Engines used only on established roads within park boundaries, unless approval from the Superintendent or FMO has been obtained to leave park roads.
- l. Bulldozers allowed only with written authorization from the Superintendent, who may authorize their use when high value resources are at risk. In these cases, archeologists, para-archeologists and/or natural resource specialists will be assigned to dozers (if possible) to minimize damage to resources.
- m. Utilize a “consumption strategy” when dealing with mop-up operations. This minimizes the exposure of firefighters to the physical hazards present along fire lines, i.e.; falling snags, rolling material, stump holes, etc., and allows for opportunities for the fire to consume fuels inside of the line without placing firefighters at unnecessary risk. Firefighters can monitor particularly hazardous areas along the line by initiating patrol actions from outside the line. Maximize the opportunity for the fire to consume fuels inside of the line without extensive mop-up activity by crews. The use of this strategy does NOT imply that the fire is left to its own devices, but rather that a coordinated approach of mop-up activity is utilized that allows for minimum exposure to firefighters during this phase of the fire suppression effort.

**Attachment 3.**

**Agency Letters of Response**



Commonwealth of Pennsylvania  
Pennsylvania Historical and Museum Commission  
**Bureau for Historic Preservation**  
Commonwealth Keystone Building, 2nd Floor  
400 North Street  
Harrisburg, PA 17120-0093  
www.phmc.state.pa.us

July 19, 2005

Keith E. Newlin  
US Department of the Interior  
National Park Service  
Johnstown Flood National Memorial  
110 Federal Park Road  
Gallitzin, PA 16641

TO EXPEDITE REVIEW USE  
BHP REFERENCE NUMBER

Re: File No. ER 05-2508-021-A  
NPS: Fire Management Plan  
Environmental Assessment for  
Allegheny Portage Railroad National  
Historic Site & Johnstown Flood  
National Memorial, Johnstown, Cambria  
County

Dear Mr. Newlin:

The Bureau for Historic Preservation (the State Historic Preservation Office) has reviewed the above named project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980 and 1992, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation. These requirements include consideration of the project's potential effect upon both historic and archaeological resources.

There may be historic buildings, structures, and/or archaeological resources located in the project area. In our opinion the activities described in your proposal should have no effect on these resources. Should you become aware, from any source, that unidentified historic buildings, structures, and or archaeological resources are located at the project site, or that the project activities will have an effect on these properties, the Bureau for Historic Preservation should immediately be contacted.

If you need further information regarding archaeological survey please contact Chan Funk at (717) 772-0924. If you need further information concerning historic structures please consult Ann Safley at (717) 787-9121.

Sincerely,

Douglas C. McLearn, Chief  
Division of Archaeology &  
Protection

DCM/tmw



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Pennsylvania Field Office  
315 South Allen Street, Suite 322  
State College, Pennsylvania 16801-4850



August 12, 2005

Mr. Keith Newlin, Superintendent  
U.S. National Park Service  
Allegheny Portage Railroad National Historic Site  
110 Federal Park Drive  
Gallitzin, Pennsylvania 16641

Dear Mr. Newlin:

This responds to your letter of July 1, 2005, requesting Fish and Wildlife Service review and comment on the Fire Management Plan Environmental Assessment for Allegheny Portage National Historic Site, located in Cambria and Blair Counties, and the Johnstown Flood National Memorial in located in Cambria County, Pennsylvania. The following comments are provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to ensure the protection of federally listed, endangered and threatened species, and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 *et seq.*) to ensure protection of fish and wildlife resources.

#### Aquatic Resources

Based on an office review of county soil survey maps and National Wetland Inventory maps, wetlands, as well as perennial and intermittent streams, occur within the boundaries of the National Battlefield and the Historic Site. The use of mechanized equipment to aggressively control wildland fires, as described in Alternative 1, could damage these aquatic resources. We recommend that the use of heavy equipment in streams, wetlands, or other aquatic sites be limited to the minimum necessary. Heavy equipment working in wetlands should be placed on corduroy, chunkwood, or rubber mats to minimize disturbance. The use of fire retardants in and around aquatic habitats should be undertaken only after careful consideration of the retardant's toxicity to aquatic life and other wildlife.

Alternative 2 would include the use of prescribed burns to reduce fuel loads and provide other resource benefits. While prescribed burns help to promote species diversity by controlling invasive woody shrubs and trees, eliminating dead vegetation, stimulating new plant growth by allowing sunlight to warm the dark soil, encouraging germination, and returning nutrients to the soil, fire also can be detrimental to aquatic life. Fire may eliminate protective streambank vegetation, leading to streambank erosion and sedimentation. Further, concentrated nutrients (usually phosphorous) found in run-off from these burns can result in increased nutrient loading to riverine and wetland ecosystems. We recommend that the National Park Service not conduct prescribed burns immediately adjacent to aquatic areas, and we encourage the use of firebreaks around such sites.

Prescribed burns are a good management tool for setting back ecological succession from woody vegetation to grasses and forbs. We recommend that any area controlled by fire in a controlled burn be immediately revegetated with native, warm-season grasses. Common warm-season grass species include big bluestem (*Andropogon gerardi*), little bluestem (*Schizachyrium scoparium*), switchgrass (*Panicum virgatum*), and Indiangrass (*Sorghastrum nutans*). These species can be planted between April 1 to June 15.

We note that your plan for fuels management includes the use of herbicide as a non-fire fuel reduction treatment in Alternatives 2 and 3. Communication with Park Service staff revealed that glyphosate (the common ingredient found in Roundup<sup>7</sup>), triclopyr (the common ingredient found in Garlon<sup>7</sup>), and imazapyr (the common ingredient found in Stalker<sup>7</sup>) are three herbicides under consideration.

It is important to consider the effects on the aquatic community when spraying herbicides in the vicinity of a water body. Due to the toxic nature of carriers or surfactants usually used in conjunction with herbicides, we recommend these compounds not be used with any herbicide choice. Surfactants, or carriers, can often be more environmentally detrimental than the treatment. In addition, certain surfactants are more toxic and persistent in the environment than the herbicide itself, and may have adverse indirect effects on the aquatic life. Glyphosate (Roundup<sup>7</sup>), triclopyr (Garlon<sup>7</sup>), and imazapyr (Stalker<sup>7</sup>) can be successfully applied in upland areas. However, Garlon<sup>7</sup> has limited use on or near aquatic resources, due to its potential toxicity to fish. Product labeling for Stalker<sup>7</sup> warns against applying this chemical on or near surface waters. We recommend that the Park Service use the aquatic formulation of any herbicide chosen when herbicide use is anticipated around streams or wetlands. The aquatic formulations of glyphosate (Rodeo<sup>7</sup>), or triclopyr (Renovate 3<sup>7</sup>) are acceptable, less toxic alternatives, and recommended for use around aquatic resources.

To avoid incidental spray drift during application of herbicides, we recommend targeted application, including painting the cut surfaces of freshly cut stumps and stubble, injecting through the bark of woody plants, making cuts with a hatchet and treating, girdling and treating, or using basal bark and stem treatment methods, wherever possible.

We would appreciate receiving a copy of the MSDS for the herbicide to be used as soon as you determine which chemical you will be applying. We can then assess the environmental effects of the compounds proposed for use.

#### Threatened and Endangered Species

Except for occasional transient species, no federally listed or proposed threatened or endangered species under our jurisdiction are known to occur within the project impact area. Therefore, no biological assessment nor further consultation under the Endangered Species Act is required with the Fish and Wildlife Service. This determination is valid for two years from the date of this letter. If the proposed project has not been fully implemented prior to this, an additional review by this office will be necessary. Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered. A compilation of certain federal status species in Pennsylvania is enclosed for your information.

Please contact Jennifer Kagel of my staff at 814-234-4090 if you have any questions or require further assistance regarding this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "David Densmore", with a long horizontal flourish extending to the right.

David Densmore  
Supervisor

Enclosure