INTERAGENCY
FIRE MANAGEMENT PLAN

BETWEEN THE

USDA FOREST SERVICE
FLATHEAD NATIONAL FOREST

AND THE

US DOI NATIONAL PARK SERVICE
GLACIER NATIONAL PARK

February, 2005

Authorization for Implementing the Fire Management Plan

This plan has been reviewed and accepted on _____, 2005.

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Flathead National Forest, Forest Supervisor   Date

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Glacier National Park, Park Superintendent   Date

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Fire management policies of the National Park Service (NPS), Department of Interior and the USDA Forest Service (USFS); support each agency's resource management goals. An overriding goal is restoration or maintenance of natural ecosystems, while providing for firefighter and public safety, protection of natural and cultural resources, and human developments from unwanted wildland fire.

This joint fire management plan (also referred to as "the plan" for Glacier National Park and the Flathead National Forest contains the following program direction:

1. To guide a joint agency decision-making process where safety, social, political, and resource values are evaluated; and appropriate management response strategies are identified for wildland fires in all fire management units; including an appropriate management response strategy for all unwanted wildland fires.

2. To provide a framework for hazard fuels management strategies and for restoring wildland fire to fire-dependent ecosystems.

3. To provide an interagency platform from which to cooperate more fully in planning and implementing a wildland fire program across agency boundaries.

Program operations included in the plan are preparedness, prevention, detection, suppression, fuels management, including mechanical treatments and fire use (both prescribed fire and wildland fire use to achieve resource benefits). Applicable resource goals and objectives are derived from approved agency resource and general management plans. This plan is interagency in purpose, scope, objectives, and guidelines. The plan integrates those areas where policies and agency goals coincide, while allowing for agency-specific program elements to also be included. Where any policy differences exist, there is provision in the plan for a joint agency forum approach, whereby appropriate and timely communications are fostered and consensus reached.

The Plan is organized to combine the latest scientific knowledge, including regional and local studies, with a hierarchy of policy direction, from departmental and agency to the Federal Wildland Fire Policy (1995 & 2001 revision), to accomplish resource and fire management goals and objectives. The intent of the plan is primarily operational in nature providing guidance to USFS and NPS fire and resource management staffs.

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I. INTRODUCTION

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A.　Need and Purpose of the Fire Management Plan

Agencies within Department of Interior and Department of Agriculture with vegetation capable of sustaining wildland fire are required to prepare a fire management plan. The United States Forest Service (USFS) and National Park Service (NPS), referred to herein as "the agencies", have recognized and acted on this policy direction by coordinating and collaborating in the development of this joint fire management plan.

The plan provides a joint framework for management of wildland and prescribed fire to safely accomplish both resource protection and resource management objectives on USFS lands administered by the Flathead National Forest and on NPS lands administered by Glacier National Park, referred to herein as "the units" (see Figure 1 - Vicinity Map). This fire management plan (FMP) is an appendix to Glacier National Park's Resource Management Plan (RMP) and a supplement to the Flathead National Forest's Land and Resource Management Plan (LMP).

Figure 1 - Vicinity Map

Joint Fire Management Plan
Glacier National Park
&
Flathead National Forest
VICINITY MAP
Scale 1 : 950,000

B   Collaborative Process and Opportunities

1. Coordination and Cooperation

Each unit, upon request of the other and within their capabilities, will assist the other with emergency fire suppression, adhering to the standards of the requesting unit. When land of one unit is threatened by fire on the other unit, the threatened unit may reinforce or relieve the unit at the scene without expectation of reimbursement. Upon request, each unit will provide the other with fire reports, incident reports and other pertinent records related to the agreement. When a fire crosses or poses an imminent threat of crossing jurisdictional boundaries, a joint delegation of authority to a single Incident Commander or a unified command will be established by involved agencies. Agencies will keep each other informed of changing conditions. The Flathead Interagency Dispatch Center Operating Plan will be referenced to identify mutual threat zones, policies, standards and procedures for fire-cause investigation, communications and reports.

a. Shared Fire and Aviation Management Positions

Interagency organizational coordination and cooperation are integral to successful implementation of fire management programs. While the agencies funding mechanisms are different, coordination of budget submissions will help fund and establish shared or cooperative positions. As funding allows, FNF and GNP will establish a full-time shared interpretive and fire information specialist position. Additional shared positions, contingent on funding, may include helitack module members, engine crews, wildland fire and prescribed fire monitors, and an interagency aviation manager to further increase program efficiency and cost effectiveness. Many wildland and prescribed fires will require additional support by other interagency cooperators.

C.   Resource Management and Fire Management Goals

This plan will implement fire management policies and help to achieve resource management and fire management goals defined in:

- Protecting People and Sustaining Resources in Fire-Adapted Ecosystems, A Cohesive Strategy, (US Forest Service, October 13, 2000)
- Managing Impacts of Wildfires on Communities and the Environment, and Protecting People and Sustaining Resources in Fire Adapted Ecosystems – A Cohesive Strategy (USDOI/USDA); and
- A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Strategy Implementation Plan.
- Interagency Standards for Fire and Fire Aviation Operations (The Red Book), 2005.
- Forest Service Manual 5101, Fire Management Authority
- Forest Service Manual 5108, References
- National Park Service Reference Manual-18: Wildland Fire Management
- Respective units' resource/land management plans

D.   Compliance with National Environmental Policy Act and Other Relevant Laws

Both Flathead National Forest and Glacier National Park are provided policy direction in The <u>Federal Wildland Fire Management Policy</u>, 1995 which requires development of a fire management plan (FMP) for all National Forest System and National Park Service lands with burnable vegetation.

Compliance requirements with National Environmental Policy Act (NEPA) guidelines have been satisfied through development of an Environmental Assessment (EA) for Glacier National Park and a Record of Decision from the Environmental Impact Statement (EIS) developed for the Flathead National Forest Land and Resource Management Plan. These requirements ensure a prudent assessment and balance between a federal action and any potential effects of that action, leading to consensus between agency administrators, fire managers, resource specialists, and the public regarding this interagency fire program. Any constraints or limitations imposed on the fire management program are also identified.

Compliance requirements with NEPA have been satisfied through development of an environmental assessment (EA) for Glacier National Park and a record of decision (ROD) from the environmental impact statement (EIS) developed for the FNF LMP.

Flathead National Forest

The Flathead National Forest fire management actions conform to requirements established in the LMP; Forest Service Manual 5100 Fire Management; the 1995 <u>Federal Wildland Fire Management Policy and Program Review</u>; and the <u>Wildland and Prescribed Fire Management Policy Implementation Procedures Reference Guide</u> (FSM 5103 Fire Management Policy and FSM 5108 Fire Management References).

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Glacier National Park

National Historic Preservation Act. The Glacier National Park fire management actions will be implemented in accordance with regulations and directions governing protection of historic and cultural properties outlined in the Department of the Interior, Departmental Manual, Part 519 and Title 36 of the Code of Federal Regulations; National Historical Preservation Act, Section 106. Clearance procedures will be followed for any fire management activity that could affect historic, cultural or archeological resources.

The Montana State National Historic Preservation Office has requested that the

park develop a programmatic agreement to protect cultural resources during fire management activities. Until a programmatic agreement is completed, the park will conduct section 106 consultation with the Montana State Historic Preservation Office in Helena for each undertaking.

National Environmental Policy Act. Prescribed burns and mechanical fuel reduction projects may require a complete biological assessment if an action may adversely affect a threatened or endangered species.

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E. Authorities for Implementing the Fire Management Plan

Flathead National Forest

The Flathead National Forest FMP is authorized by the forest's approved Land and Resource Management Plan (1985 with subsequent amendments) and ensures adequate fire protection capability and support efforts to reintroduce fire to meet land management objectives.

The Forest LMP conforms to requirements established by:

- Forest Service Manual 5100, Fire Management.
- 1995 Federal Wildland Fire Management Policy and Program Review.
- Wildland and Prescribed Fire Management Policy Implementation Procedures Reference Guide (FSM 5103 Fire Management Policy and FSM 5108 Fire Management References).
- Protecting People and Sustaining Resources in Fire-Adapted Ecosystems, A Cohesive Strategy, US Forest Service, October 13, 2000.

Other applicable federal, interagency and agency policies (FSM 5101 Fire Management Authority and FSM 5108) that require fire management plans to recognize fire protection, wildland fire use and prescribed fire as inherent components of natural resource management; and include the full range of fire management actions consistent with the Forest LMP.

The following Acts authorize and guide fire management activities to protect National Forest System lands and resources (FSM 5101.1):

- Organic Administration Act, Act of June 4, 1897 (16 U.S.C. 551).
- Bankhead-Jones Farm Tenant Act, Act of July 22, 1937 (7 U.S.C. 1010, 1011).
- Wilderness Act, Act of September 3, 1964 (16 U.S.C. 1131, 1132).
- National Forest Management Act, Act of October 22, 1976 (16 U.S.C. 1600 et seq.).
- The Clean Air Act, as amended (42 U.S.C. 7401 et seq.).

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Glacier National Park

The Organic Act of the National Park System (United States Code, Title 16, Section 1) gives authority to the parks to:

"...promote and regulate the use of the federal areas known as national parks, monuments, and reservations....by such means and measures as conform to the

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fundamental purpose of the said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."

The specific enabling legislation for Glacier National Park (United States Code, Title 16, Section 162) gives the Secretary of the Interior the duty to ensure:

". . . the preservation of the park in a state of nature so far as is consistent with the purposes of this act, and for the care and protection of the fish and game within the boundaries thereof."

The Management Authorities, Director's Order 18 (November 1998) and Reference Manual 18 (February 1999) are the guiding documents for wildland fire management plan implementation. The park's fire management objectives conform to the referenced documents.

Reference Manual 18 adds that the fire management plan will reflect NPS policies and "the specific characteristics, legislative obligations, environmental, and social considerations" for each particular area.

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II. RELATIONSHIP TO LAND MANAGEMENT PLANNING AND FIRE POLICY

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A.   Wildland Fire Management Policy

Fire management policy is provided to the agencies through interagency (federal) sources and agency-specific direction found in:

Federal Wildland Fire Policy[1] (1995 & 2001). Fire management planning, preparedness, prevention, suppression, wildland fire use, prescribed fire, restoration and rehabilitation, monitoring, research, and education will be conducted on an interagency basis with the involvement of cooperators and partners.

Interagency Wildland and Prescribed Fire Management Policy Implementation Procedures Reference Guide (1998). The Forest Service currently adheres only to the 1995 Policy and the 1998 Implementation Guide as per the Forest Service Manual system.

The joint FMP provides direction for how a wide range of fire management actions will be accomplished on and between the two agencies and units. If the FMP is not linked to specific authority to implement wildland fire use, provided through an approved land and resource management plan (USFS), or general and resource management plans (NPS), the fire must be managed with a safe and appropriate management response. The FMP provides for a range of fire management actions and how each may be considered during the planning process. The Federal Wildland Fire Policy provides a full range of wildland fire management options to consider, from aggressive suppression to fire use for resource benefits.

The policy does not limit the options available during the implementation process, which is the selection and application of an appropriate management response to a specific fire. Direction provided in the FMP and existing conditions will determine the range of options available to managers for a given wildland fire event or fuel management opportunity.

Flathead National Forest

Forest Service fire management policy is provided through the Forest Service Directives System; specifically by FSM 5100 through FSM 5190. Policy may also be provided through interim direction issued by the agency administrator at the National, regional, and forest levels.

Glacier National Park

National Park Service Management Policy is provided through Directors Orders 18 (DO18) and Reference Manual 18 (RM18).

B.   Purpose of the Units and Resource Values

The Flathead NF and Glacier NP are located in northwestern Montana in the Rocky Mountain Province. The current mountain and valley landforms originated from block fault uplifting and glaciation from the last ice age. The units share a common boundary along the North and Middle Forks of the Flathead River as well as one of North America's most diverse and unaltered native wildlife and fish habitats.

Flathead National Forest

The Flathead NF includes 2,352,000 acres along the west side of the Continental Divide. The National Forest was created to protect and manage the timber, water, fish and wildlife, recreation and wilderness, mineral, and range values on those public lands.

Over 1,000,000 acres of the forest are included in three congressionally designated wilderness areas, the Bob Marshall (managed on the east side of the Continental Divide by the Lewis and Clark NF), Great Bear, and Mission Mountains. The Bob Marshall Wilderness Complex, including the entire Bob Marshall, Great Bear, and adjacent Scapegoat Wilderness (managed by the Lewis and Clark, Helena, and Lolo National Forests) has an approved wildland fire use plan that recognizes the importance of natural fires in shaping and maintaining natural processes in what is one of the largest intact ecosystems in the lower 48 United States. The wildland fire use program managed by the Flathead is one of the most challenging components of the forest's fire management program.

The Flathead manages more miles of wild and scenic rivers than any other public land area in the 48 contiguous United States. The Jewel Basin Hiking Area is a 15,000 acre preserve dedicated exclusively to hiking and primitive camping. Outdoor recreation uses are also focused on two alpine ski areas, abundant areas for cross country skiing and snowmobiling, 34 developed camp grounds, extensive big-game watching, hunting and fishing opportunities, berry picking, and general sightseeing. The forest's habitats are home to over 250 species of wildlife and 22 species of fish. Those include the threatened grizzly bear, Canadian lynx, bald eagle, bull trout, the endangered gray wolf, and the rare water howellia plant.

Approximately one third of the forest is considered suitable for commercial timber management and harvest. The forest provides abundant clean, fresh water for domestic and commercial use. Hungry Horse Dam impounds the South Fork of the Flathead River downstream from the Bob Marshall Wilderness for flood control and power generation.

The grazing of livestock is only a minor use on the Flathead. No commercially valuable mineral deposits have been discovered or developed on the forest.

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Glacier National Park

The 1,013,595 acres comprising Glacier National Park in northwest Montana are of worldwide significance. Established in 1910, Glacier was set aside "as a public park or pleasure ground for the benefit of the people of the United States" (enabling legislation for Glacier National Park). The wide variations in climate, elevation, geology, and soils help define four geographic vegetation patterns. Glacier provides habitat for natural populations of indigenous carnivores and most of their prey species and nearly all species of terrestrial wildlife present when the park was established. The long and varied human history of the region also is reflected in the park's cultural resources, which include historic buildings and structures, archaeological sites, and ethnographic resources.

Glacier National Park and Waterton Lakes National Park of Canada are designated the world's first International Peace Park. Waterton-Glacier International Peace Park also has been designated an International Biosphere Reserve and a World Heritage Site. Ninety-five percent of Glacier National Park is proposed wilderness, and following NPS policy, is managed as designated wilderness.

Refer to enabling legislation in section 1. E of this plan.

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C. Goals and Objectives Provided by the Land & Resource and General Management Plans

Flathead National Forest

U.S. Forest Service policy requires integration of fire management considerations into Forest LMP goals and objectives. Development of fire management direction in the forest plan identifies foreseeable effects of fire on environmental, social, and economic conditions and outputs. A range of protection levels and fire use alternatives should be developed. Economic and social effects of fire management options are based on analyses that incorporate consideration of commodity, non-commodity, and social values. The standards prescribed by the Flathead National Forest LMP are as follows[2]:

- Fire management will follow the Federal Wildland Fire Management Policy through the development of a fire management plan. The fire management plan will provide geographically specific direction for wildland fire use to meet land management objectives through the use of natural fire and planned ignitions.

- Fire management resources will be developed and organized in a manner that is cost effective and commensurate with public safety and protection of private property, as well as being sensitive to public resource values and goals.

- Prescribed fire management may include the use of planned ignitions to meet specific land management objectives. Fire management strategies for the Bob Marshall and Great Bear Wilderness areas will be in accordance with the Wilderness Fire Plan, Phase II, for the Bob Marshall and Great Bear Wilderness areas and the Scapegoat-Danaher Wilderness Fire Plan. Management alternatives and actions for a specific ignition will be guided by the Bob Marshall Complex Wildland Fire Use Guidebook (July 2004), that becomes a part of this joint FMP. Prescribed fire and wildland fire use direction may be developed for other areas designated as wilderness or roadless-dispersed recreation.

- Prescribed fire objectives will be conducted under constraints established by the Montana Airshed Group's Memorandum of Understanding. Air quality will be maintained at adequate levels as described by state, county, and federal direction. All prescribed burns conducted on Flathead National Forest land will be governed by this direction and meet this objective.

- Provide appropriate protection to threatened and endangered plants and their habitat through the complete spectrum of fire management activities. Retardant drops and fire line construction should be avoided near water

howellia habitat, and water howellia ponds should not be considered as water sources for helicopter bucket operations.

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Glacier National Park

The General Management Plan (GMP) states: "Fires in Glacier National Park are managed to achieve a balance between suppression to protect life, property, and resources and fire use to achieve and maintain healthy ecosystems."

> "Wildland and prescribed fires are a means to an end. They represent planning and implementation actions carried out to facilitate protection and resource management objectives described in fire management plans."

These objectives are a direct link to decisions and management goals stated in the Resource Management Plan and the General Management Plan. The General Management Plan objectives are as follows:

- Preserve and protect natural and cultural resources unimpaired for future generations (1916 Organic Act).
- Provide opportunities to experience, understand, appreciate and enjoy GNP consistent with the preservation of resources in a state of nature (1910 legislation establishing GNP).
- Celebrate the ongoing peace, friendship and goodwill among nations, recognizing the need for cooperation in a world of shared resources (1932 International Peace Park legislation).

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1. **Objectives of Cultural and Natural Resource Management Plans and the Fire Management Plan**

   Within the framework of NPS and USFS fire management policies; the objectives of fire management programs are to:

   - Protect human life and property from wildland fire; safety is the primary consideration of every management action.
   - Restore fire to its natural role and use prescribed fire to maintain healthy and dynamic ecosystems that meet management objectives.
   - Use "appropriate management response" on public lands by considering the entire range of alternatives including the possibility of suppression on one part of a wildland fire, and monitoring on another part of the same fire.
   - Protect those agency-identified resources that are at risk from fire.
   - Minimize adverse effects of fire suppression.

- Manage all aspects of the fire management program in a cost efficient and effective manner.

Glacier National Park

Implementation of this FMP within GNP will support the Park GMP and Resource Management Plan (RMP) by managing fire as an ecological process that will help restore and maintain natural biotic systems.

In addition, this plan is the outcome of a coordinated effort between Flathead National Forest and Glacier National Park and as such identifies joint fire management objectives.

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III.   WILDLAND FIRE MANAGEMENT STRATEGIES

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A.   General Management Considerations

The goal of the joint fire management program is to safely manage wildland fires at minimum cost consistent with land and resource management objectives and fire management direction. Per the Ten-Year Comprehensive Strategy, collaboration, priority setting, and accountability are significant goals of this fire management plan.

All wildland fires occurring on lands protected by Glacier NP and Flathead NF will have the appropriate management response (AMR) implemented in a safe, timely, and cost-effective manner. The AMR will meet the protection and management objectives provided in the agencies' land and resource, general management, and resource management plans.

The appropriate management response authorized by approved plans for both the park and forest includes suppression of unwanted fires and wildland fire use for resource benefits in designated areas. All wildland fires must be assigned a status as either an unwanted fire requiring suppression, or a fire that meets prescription for resource benefits and will be managed as a fire use event. A candidate fire that occurs in an area approved for wildland fire use (FMU-A) may be managed for that purpose for up to 48 hours from the time of discovery. During that time, the wildland fire implementation plan (WFIP) is begun with additional analysis leading to a decision for the long-term management strategy for the fire.

The general implementation procedures for the agencies wildland fire management programs will follow the core principles of the Ten-Year Comprehensive Strategy, including:

Collaboration: The Flathead National Forest and Glacier National Park will continue efforts to strengthen partnerships with local, state, and other federal cooperators and non-government partners adjacent to the lands administered and protected by the agencies.

Priority Setting: The forest and park will continue to place public and firefighter safety as the highest priority in all fire management decisions and actions. Direction provided by the National Fire Plan to prioritize hazardous fuel treatment projects on communities and municipal and other high priority watersheds will be followed within the programmatic and budgetary guidelines and capability of each agency. Restoring and maintaining the health and resistance of fire-prone ecosystems on a landscape scale is a long-term emphasis, also within the guidelines of programmatic, budget, and mission objectives of each agency.

Accountability: The forest and park will establish and consistently employ cost effective measures, standards, budgets, and reporting processes in the development and implementation of programmatic and project level fire management plans and activities.

Also see section IV.B.4.b. below for a discussion of the appropriate management response for suppression of unwanted wildland fires.

The goals for which wildland fire management strategies are applied include:

- Achieve a program where firefighter and public safety is the highest priority in every fire management activity.
- Increase public information and education opportunities for understanding the role of wildland fire in shaping and maintaining healthy, diverse ecosystems, and increase the use of fire to restore fire-adaptive ecosystems and meet other resource objectives with science-based data and plans.
- Reduce hazardous fuels that compromise public safety and resource values by continuing to develop a diverse program and funding capability that considers all viable fuel treatment strategies and technologies.
- Integrate fire protection and use considerations in all aspects of land and resource management planning.
- Promote community assistance by encouraging local capacity to accomplish hazardous fuel reduction and ecosystem rehabilitation.
- Improve the effectiveness of reducing human-caused fire risk and preventing and suppressing unwanted wildland fires.
- Build effective communications, working relations and partnerships with other federal, state, and local land and resource management agencies, local government public safety entities, state air quality regulators, local private land owners, and the interested public in order to inform, collaborate, and coordinate an effective and efficient fire management program.

B.   Wildland Fire Management Goals

1. **Firefighter and public safety will be the highest priority of every fire management activity.**

   Objective: Ensure that wildland fire and prescribed fire operations are managed to minimize risk to the public and firefighters.

   Strategy: For personnel assigned responsibilities to manage wildland and prescribed fires, ensure that each individual meets the National Wildfire Coordinating Group standards listed in the Wildland and Prescribed Fire Qualification System Guide 310-1, including physical fitness requirements. Forest Service personnel must meet all qualification standards defined in FSH 5109.17.

   - Firefighting personnel from cooperating agencies will meet the qualification standards set by their agencies when used during initial attack on unwanted wildland fires.
   - All personnel involved in fire management operations will receive a pre-engagement briefing that describes known hazards and mitigating actions specific to each wildland fire or prescribed fire event. Briefings will address established firefighter safety practices, current and expected fire behavior, current and predicted fire weather, incident or project organization, and specific strategic and tactical objectives.
   - For every fire management project, safety responsibilities are clearly described by agency guidelines. This includes, but is not limited to, adherence to the 10 Standard Fire Orders, the 18 Watch-Out Situations and LCES (Lookouts, Communications, Escape Routes and Safety Zones).
   - Provide notification to park and forest visitors, federal, state, and local government cooperators, and local residents of all planned and unplanned fire management activities that could affect them.
   - The park superintendent and forest supervisor respectively may close all or portions of the park or forest to the public when fire activity may pose a threat to human safety.

2. **Provide an efficient fire management program in which cost containment is a specific objective.**

   Objective: All fire management plans and actions will consider ways to contain costs while meeting land and resource objectives without compromise to firefighter and public safety or values to be protected on the units.

Strategy: Agency administrators and fire managers will identify and consider the most cost effective strategies and treatments in all fire management planning. If the least-cost alternative is not selected, a specific rationale will be provided in conjunction with documentation of the decision.

Flathead National Forest

The responsible line officer will activate a Type 1 incident business advisor (IBA) for all wildfires that are predicted to exceed $5 million in suppression costs, or require activation of a Type 1 incident management team. For incidents requiring a Type 2 IMT, a Type 2 IBA or a fiscal / administrative advisor will be assigned. In all cases, the IBA will work directly for the line officer.

The IBA will:

- Provide advice to the line officer regarding incident business issues and cost containment opportunities that can be implemented.
- Provide advice to the line officer on incident management team performance regarding fiscal issues and efficient application of cost containment measures.
- Provide a concise report of all findings, including Forest Service cost savings recommendations and resulting actions within five days of containment of the fire.

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3. **Manage wildland and prescribed fires in compliance with federal, state, and local air quality regulations.**

Objective: Ensure that air quality thresholds for National Ambient Air Quality Standards are not exceeded and that visibility is not exceeded or significantly impacted in adjacent airsheds.

Strategy: (Note: See also section on "Wildland Fire Situation Analysis" for further description of impact on air quality).
- Incorporate air quality objectives in each prescribed fire plan.
- Develop and implement smoke impact mitigation measures for prescribed fires.
- Analyze potential impacts of smoke from all wildland fire events and consider alternatives that reduce smoke amount and duration, and/or employ mitigation actions to the extent possible.

- Coordinate air quality objectives and smoke production restrictions with smoke management unit as part of prescribed fire planning and implementation.
- Analyze alternative non-fire treatment methods prior to selecting a prescribed fire alternative.

4. **Implement the appropriate management response for all unwanted wildland fires, regardless of ignition source, to protect the public, check fire spread onto private property, and protect the natural and cultural resources on federal lands.**

   Objective: Limit 95% of unwanted wildland fires to less than 10 acres in size.

   Strategy:
   - Attempt to prevent fire spread onto adjacent public and private lands by containing all fires within park and forest boundaries.
   - Assess values to be protected and take appropriate actions for each incident, to prevent fire damage to facilities and historic and cultural resources.
   - Maintain qualified fire management organizations capable of handling the normal-year suppression workload.
   - Cooperate and communicate effectively with adjacent agencies. Keep interagency agreements current.
   - Suppress fires or portions of fires that threaten to damage public property.
   - Ensure that staff is trained in wildland fire operations and that managers who are responsible for fire operations understand fire policy.
   - Ensure that necessary equipment and fire personnel remain in a state of readiness during the fire season.
   - Implement an effective fire prevention program.

5. **Manage wildland fires so that all resources (natural, cultural, and improvements) are protected from damage by suppression actions and unwanted fire.**

   Objective: Manage suppression actions so that rehabilitation costs total less than 10% of suppression costs.

   Strategy:
   - Ensure that all fire management operations employ minimum impact management tactics.

- Use the appropriate management action to avoid unnecessary resource damage.
- Ensure that fire operations personnel are briefed on resource values and potential damage from fire and suppression actions.
- Assign a resource advisor on any fire with potential to adversely impact sensitive resources, or that will require intensive use of site-disturbing suppression tactics, or to which a Type 1 or Type 2 incident management team is assigned.

6. **Facilitate reciprocal fire management activities through cooperative agreements and working relationships with other federal, state, and local fire management entities.**

   Objective: Review agreements and modify annual operating plans with cooperating agencies annually.

   Strategy:
   - Coordinate with international, tribal, federal, state and county governments (see Appendices 5.F.1, 5.G.1 and 5.G.2).
   - Where appropriate, share resources in wildland fire management and prescribed fire implementation to facilitate cooperation, develop skills and enhance qualifications.

7. **Employ prescribed fire and wildland fire use as program options to meet resource management objectives, maintain and restore natural resources and natural ecological conditions where possible.**

   Objective: Restore fire to its natural role to the extent possible and enable natural processes to function essentially unimpaired by human influence.

   Strategy:
   - Implement a wildland fire use program to allow fire to assume its natural role.
   - (USFS only) Use fire to maintain, improve or restore wildlife habitat and watershed values.
   - Coordinate multiple inventory systems and build a resource database to help better understand natural vegetative composition.
   - Continue conducting fire history research to further understanding of natural fire regimes.
   - Quantify fire behavior and effects through research, monitoring and evaluation in order to refine prescriptions.
   - Use prescribed fire to meet management goals when and where wildland fire use is unacceptable due to any management concern.
   - Maintain a qualified staff to implement prescribed fire programs.

- Solicit public involvement in the agencies' fire programs and maintain an effective public information program specific to the needs and benefits of prescribed fire and wildland fire use in relation to resource management goals and objectives.
- Refine prescriptions for prescribed fire and wildland fire use to ensure safety of the public and fire managers and capability of restoring and maintaining respective ecosystems.
- Integrate current science that establishes the natural role of fire as well as the risks and economics in development of project prescriptions.

8. Reduce wildland fire hazards around developed areas and in areas adjacent to cultural sites.

Objective: Use strategies to reduce risk of fire destroying or damaging any public or private structure or any cultural or historic resources.

Strategy:
- Apply mechanical hazard fuel reduction, prescribed fire, or a combination of the two around structures and other improvements to reduce fire intensity and severity to defensible levels.
- Use available techniques, including mechanical hazard fuel reduction and prescribed fire, to reduce hazardous fuel concentrations in wildland/urban interface and around cultural and historic sites.

9. Reduce the incidence and extent of unwanted wildland fires.

Objective: Prevent unplanned human-caused ignitions through fire prevention and education programs for park and forest visitors, neighbors, and staffs.

Strategy:
- Inform and educate the public through school visits, interpretive programs, public meetings, etc. Include such topics as: prevention, defensible space, and ecosystem maintenance.
- Develop or use an existing website to display relevant fire materials, latest research, and program updates.

C.   Wildland Fire and Fuels Management Options

Resource management and protection objectives determine fire management options that support the restoration and maintenance of ecosystems within the joint planning area. This section describes operational guidelines for the FNF and GNP to integrate a complete program that applies strategies that accomplish mutually identified resource management and protection objectives.

1. Wildland Fire

A "wildland fire" is any non-structure fire, other than prescribed fire, that occurs in the wildland.

a. Suppression of Unwanted Fires

All unwanted wildland fires will be suppressed using the most appropriate management response for the situation. The highest priority in the selection of a suppression response and in carrying out all actions will be safety of firefighting personnel and the public.

Suppression includes all actions taken to extinguish or manage the growth of fires classified as unwanted wildland fires. Suppression fires will be targeted with prompt, safe and cost effective actions utilizing a strategy indicated by the specific circumstances and management objectives identified for the area burning and likely to burn.

The cause of ignition will be determined for every fire and reported on the individual fire report. A Wildland Fire Situation Analysis (WFSA) will be prepared for all unwanted wildland fires that are not controlled by initial suppression actions. Suppression forces will choose cost effective methods and equipment commensurate with land management objectives, and the requirements of the appropriate management response. Forces will attempt to halt fire spread without causing adverse environmental impacts or adverse effects to cultural resources.

The "closest forces" concept will guide dispatching resources to wildland fires. The unit duty officer will request resources through the Flathead Interagency Dispatch Center if sufficient local resources are not available. Dispatch responses guided by the National Fire Danger Rating System preparedness levels and staffing classes are specified in preparedness information and should be used as guidelines for the type and quantity of forces to be dispatched.

A wildland fire use event that is no longer in prescription, and cannot be brought back into prescription within two burning periods with available resources must be converted to an unwanted wildland fire and an appropriate management response applied. The agency administrator has the discretion to convert a wildland fire use event to an unwanted wildland fire at any time. Once converted to an unwanted wildland fire, a former wildland fire use event may not be changed back to its previous status.

A wildland fire with a suppression objective cannot be managed to accomplish resource benefits.

Where a suppression objective will be applied to an unwanted wildland fire, the following strategies may be authorized:

- control - to complete a control line around a fire, any spot fires there from, and any interior islands to be protected from damage that would be caused by the fire; to burn out any unburned area adjacent to the fire-side of the control line, and to cool down all hot spots that are immediate threats to the control line until the line can be reasonably expected to hold under foreseeable conditions.
- contain - to surround a fire and any spot fires with a control line that can reasonably be expected to mitigate the fire's spread under prevailing and predicted conditions.
- confine - to limit fire spread within a predetermined area principally by use of natural or pre-constructed barriers and/or environmental conditions. Suppression action may be minimal and limited to surveillance under appropriate conditions.

All wildland fires that escape initial attack will have a WFSA completed in a timely manner. The WFSA will serve as the decision record for selection of the appropriate management response.

See Chapter IV, Part B.5.b below.

b. Wildland Fire Use for Resource Benefits

The goal of the wildland fire use program is to maintain fire as an integral process in managing ecosystems. Such fires will be managed in accordance with established policy and prescription parameters and are subject to periodic validation by the agency administrator. The safety of the public and fire management personnel, as well as the protection of developments and private property will be of primary concern in determining the management strategy of wildland fire use events.

"Wildland fire use" is the application of the appropriate management response to naturally-ignited wildland fires to accomplish specific resource management objectives in predefined designated areas outlined in fire management plans.

Wildland fire use will result in a wide range of fire intensities and severities. Variations of fire behavior will produce a diversity of habitats, including species composition and age classes across the landscape.

The agency with jurisdictional responsibilities will take the lead for the decision-making process leading to determination of the appropriate management response. Operational personnel will be knowledgeable of wildland fire policy and must understand the individual fire assessment (Wildland Fire Implementation Plan (WFIP) and the WFSA process).

Flathead National Forest

Wildland fire use is an important element of FNF fire and resource management programs. A well-grounded wildland fire use plan exists for the Bob Marshall Wilderness Complex, including nearly 900,000 acres of the Bob Marshall and Great Bear Wilderness areas on the FNF.

Additional wildland fire use opportunities will be evaluated in the next forest LMP revision, but have been discounted for consideration any sooner as an amendment to the current (1987) forest plan. Areas with potential consideration for wildland fire use may be identified in ecosystem assessments at a watershed scale (EAWS). However, no decision will be made approving wildland fire use from that assessment or subsequent NEPA analysis until such time as a forest plan revision authorizes that option for the area analyzed.

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2. Fuels Management

a. Prescribed Fire

Prescribed fire will be used to return fire to the ecosystem and to maintain and/or restore plant communities, recycle nutrients, reduce or remove exotic plants, maintain or improve wildlife habitat, reduce hazardous fuel accumulations, reduce future fire suppression costs, and for other resource management objectives.

For purposes of this FMP and as defined by the Federal Wildland Fire Policy, prescribed fire is any fire ignited by management actions to meet specific objectives. Both agencies must address approved resource and fire management objectives stated in this FMP, and an approved written prescribed fire plan must exist prior to implementation of a prescribed fire project. Prescribed fire will be used to meet management goals when and where wildland fire use is unacceptable or is not permitted by approved plans.

Both agencies have successfully used prescribed fire as an agent in maintaining ecosystems; and to protect, enhance, and maintain desired vegetative conditions. Other specific objectives are defined in prescribed fire plans associated with resource management programs and activities. Prescribed fire is used to contribute to cost-efficient fire protection and sustainability of ecosystem values. For the foreseeable future, the prescribed fire program under this FMP will place emphasis on restoring fire as an ecological process and reducing hazard fuels concentrations.

b. Non-Fire Applications

The goal of mechanical hazard fuels reduction is the modification of wildland fuels in a cost-efficient manner to support land, resource and fire management objectives. Near developments or cultural, natural, and other resources that may be damaged or destroyed in a high intensity fire, the mechanical reduction of hazard fuels may be required. In many instances mechanical fuels reduction projects will occur in areas where fuel accumulations are too high to use prescribed fire safely and effectively. Mechanical reduction may be followed by the application of prescribed fire in these situations.

Hazard fuels reduction objectives can be met through a comprehensively planned series of projects where a combination of non-fire and prescribed fire treatments is employed.

The foremost outcome of hazard fuels reduction activities is enhancement of firefighter and public safety. In addition, real property and natural and

cultural resources are afforded better protection from future wildland fires. Hazardous fuels reduction can lower potential suppression costs by allowing more options for suppressing future fires, including those requiring less aggressive strategies and tactics. Fuels reduction activities also provide managers with more opportunities to safely and effectively use prescribed fire and wildland fire use events for restoration and maintenance of fire-adapted ecosystems.

D.   Fire Management Units and Strategies

A "fire management unit" (FMU) is any area defined by common management objectives, land features, access, values to be protected, political boundaries, fuel types, major fire regimes, or special management areas designated by agency authority or congressional action, i.e. wilderness.

Each FMU has fire management strategies assigned and includes conditions that will accomplish stated objectives for that unit. Both the park and forest have defined the same categorical fire management units delineated according to agency and unit management objectives.

The fire management units described below are defined by agency direction established in the Glacier National Park General Management Plan and Flathead National Forest Land and Resource Management Plan and principally correspond to land and resource management objectives, values to be protected, and fire regimes.

Determination of the most appropriate management strategy for each fire will consider the consequences to public and firefighter safety first, then land and resource management objectives, values to be protected, cost effectiveness, fire behavior conditions and potential effects, the probability of success and consequences of failure, availability of resources to successfully implement the strategy, and any other relevant factors.

Detailed descriptions of the characteristics, fire history and fire regimes, management goals, objectives and constraints, including fire management objectives and maps showing the location of the fire management units in the Flathead National Forest are located in Appendix 3.D.1. A map of the location of the fire management units for Glacier National Park is located in Appendix 3.D.2. Both the Flathead National Forest and Glacier National Park maintain extensive Geographic Information System (GIS) databases of cultural and natural resource information.

A general description of the park and forest fire management units and the fire management strategies that may be considered for each unit follows:

1. Fire Management Unit A — Wilderness / Resource Benefits

This FMU consists of designated wilderness areas and other land areas being managed for wilderness values, but not formally designated wilderness. Maintaining natural ecosystem processes and components, including wilderness characteristics, is the principal land and resource management

objective for this unit. Wildland fire is recognized as the primary process to meet that objective.

Most fires occurring in this unit are caused by lightning and remain small during all but the most extreme fire seasons, or the peak period within a season and can be suppressed in the initial attack stage. However, consistent with the predominant vegetation types and natural fire regimes, occasional fires can get very large. Due to the remoteness of most lands in this unit, fire starts here have a low probability of impacting human values; and therefore are well suited to be managed to restore and maintain the natural role of fire, reduce unnaturally high fuel loads, and enhance long-term resource conditions. Values to be protected are generally low within the unit, but fires can have the potential to impact adjacent units with higher values.

Wildland fire use is the primary strategy considered in this FMU. Although other strategies may also be appropriate under certain conditions, each natural ignition in this zone will be considered as a wildland fire use candidate and a WFIP will be completed. Unwanted wildland fires within this unit will usually be managed under a suppression strategy that emphasizes the minimum practical impact from human actions and potential fire size will usually not be a determinant in selecting a suppression alternative.

On all lands within this unit, prescribed fire is authorized with project planning, public involvement and appropriate environmental analysis.

2. Fire Management Unit B — Mixed Values

This FMU represents a variety of resource values and uses, and includes remote locations as well as wildland/urban interface.

Lands in this unit are generally those that historically have seen the most intensive access development and land and resource management activity.

Lightning causes most unplanned ignitions in this unit, however, human-caused fires are not uncommon, particularly close to access routes and developed areas.

Approved management actions include prescribed fire and suppression of unwanted fires. Management of the latter strategy may employ the full spectrum of suppression responses from surveillance to aggressive tactical actions, depending on land management objectives and other criteria specific to the location and circumstance of the ignition.

Flathead National Forest

Wildland fire use cannot be implemented by the FNF within this unit until a specific fire use plan is developed and approved for included Forest Service lands. Confine/contain strategies may be used where appropriate for firefighter safety and cost efficiency.

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Glacier National Park

Wildland fire use is an option for GNP lands included in this unit, but the prescriptions are restrictive due to the values to be protected within the unit and on adjacent areas. Confine/contain strategies may be used for firefighter safety, cost efficiency and to minimize resource damage from suppression activities.

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3. Fire Management Unit C — Developed Areas

This FMU consists of areas of wildland/urban interface, most often occurring along park and forest boundaries with private lands, but include developed areas of both federal-owned and private lands within the boundaries.

Human caused fires occurring in this unit are of particular significance since they are often in close proximity to structures and other developments. Fire starts within this unit are typically managed with a suppression response focused on minimizing fire effects or fire suppression impacts to developed areas or adjacent private lands. FNF and GNP management strategies also include mechanical fuel treatment, and use of prescribed fire. In some situations, confine/contain strategies may be appropriate responses and can be considered where they can be safely and effectively accomplished.

Fire management activities within this unit will often involve or be of significant interest to other cooperators, including state and local government agencies, as well as private property owners.

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IV.   WILDLAND FIRE MANAGEMENT PROGRAM COMPONENTS

.A.   General Implementation Procedures

A Wildland Fire Implementation Plan (WFIP) will be initiated for all wildland fires (Glacier National Park) and those fires within FMU A (Flathead National Forest).

The fire management officer (or qualified designee) will complete the Stage I: Initial Fire Assessment to include the Fire Situation and Decision Criteria Checklist where required. Operational management decisions are described in the completed WFIP. Specific WFIP requirements are described in Chapter 4 of the <u>Wildland and Prescribed Fire Management Policy Implementation Procedures Reference Guide</u>, hereafter referred to as the Implementation Guide. Only the most complex fire being managed for resource benefits requires completion of all stages of a WFIP.

See section VI.C of this plan for a more thorough discussion of implementation procedures.

B.   Wildland Fire Suppression

Initial action will be taken on all unwanted fires to protect life, minimize suppression cost and damage to resources, and to prevent the escape of wildland fire. The full range of suppression strategies is available on most areas of the forest and park, but areas are identified on both units where aggressive suppression is employed to reduce risk to human life or unacceptable damage to resources. The appropriate management responses for different areas of the units are derived from the respective land and resource, and general management plans.

Flathead National Forest

Fire management direction and the range of available fire suppression strategies as an appropriate management response defined by the Flathead NF LRMP can be found in Appendix 4.B.1.

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Glacier National Park

The range of available fire suppression strategies for Glacier NP can be found in Appendix 4.B.2.

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1. Range of Potential Fire Behavior

Wide variations in fire behavior in Flathead National Forest and Glacier National Park range from smoldering to intense to fast moving, depending on such factors as fuels, weather and topography. Average fires can be expected to have a rate of spread of 1 to 6 chains per hour (one chain equals 66 feet). However, under different conditions, these same fuels can support a sustained crown fire that can move through the canopy at speeds of up to 5 miles per hour. The Continental Divide can modify fire behavior serving as either a natural barrier or serving to influence local weather and wind patterns.

When live fuel moisture drops below 100 percent, fires can be expected to exhibit extreme behavior and continue to burn actively through the night, particularly on slopes above inversions. Indirect attack tactics are indicted when fires largely involve aerial fuels in conifers with moderate or long range spotting, or otherwise burning with extreme fire behavior. This situation is not uncommon in the heavily timbered conifer fuels of the forest and park when the aggravating influences of either or all of slope, dry fuels, and wind are added to the fire behavior equation. When fires burn under those conditions,

dense smoke and air turbulence can severely reduce visibility and create problems for, or curtail air operations. Such conditions also make it difficult to adequately observe a fire for size-up and reduce the effectiveness of lookouts assigned for firefighter safety.

Fire behavior can be expected to change as quickly as the interaction between the fuels, topography and weather changes. Concurrently, anticipating changes in fire behavior directly effects the selection of particular strategies and tactics to safely manage a wildland fire.

2. Preparedness Actions

Fire preparedness includes the planning and implementation of program activities, budgets, resources, and personnel necessary to respond to the average initial attack fire management workload on the units of each agency. Those workloads are determined from historical records and analysis used in the forest and park fire management planning processes (currently NFMAS and FIREPRO respectively, with Fire Program Analysis (FPA) forthcoming).

Unusually severe initial and extended attack potential or activity is addressed in real time by severity authorizations made upon requests from the agencies. Approval of severity funds and augmentation of the agencies capabilities is based on predictive services forecasts and actual activity levels that exceed planned program levels.

The forest and park fire management officers, respectively, are responsible for developing annual preparedness plans that are approved by the forest supervisor and park superintendent for their units.   Preparedness reviews for both agencies will be conducted annually in late June or early July.

a. Fire Prevention

Each agency has developed a wildland fire prevention plan with specific education and engineering activities designed to increase public awareness of general and seasonal fire potential and precautions in the use of fire for recreational, personal, and commercial purposes. Fire prevention activities occur at the local level through unit prevention programs and are coordinated on an interagency basis among the partners of the NW Montana NRCG Zone.

Prevention plans for the Flathead NF and Glacier NP can be found in Appendix 4.B.3 (FNF) and 4.B.4 (GNP).

1) Restrictions and Closures

During periods of very high and extreme fire danger, the agencies, in collaboration with the other NW Montana Zone cooperators, may consider restrictions or closures to public access and use of national forest and national park lands. Restrictions and closures are fire prevention engineering tools designed to reduce human-caused fire risk, and to provide increased public safety by controlling occupancy of public lands that may be threatened by wildland fire.

Flathead NF and Glacier NP are signatory agencies of the <u>NW Montana Restrictions and Closures Plan</u> (see Appendix 4.B.5). The plan provides guidance to agency administrators and fire prevention planners for considering the need for, and implementing fire restrictions and closures.

b. Training and Qualifications

The purpose of fire training is to promote safe and effective individual performance in accomplishing fire management goals and objectives. Wildland and prescribed fire qualifications based on training and experience are established by the NWCG guidelines and agency policies. NWCG publication PMS 310-1 <u>Wildland and Prescribed Fire Qualification System Guide</u> sets baseline interagency standards for training and qualifications requirements.

Flathead National Forest

Forest Service wildland and prescribed fire training and experience policy and guidelines are found in FSH 5109.17 <u>Wildland Fire Qualifications Handbook</u>.

The Forest Fire Qualifications Review Committee (FQRC) will oversee all fire training and qualifications policy and procedures, including certifying employees as qualified for positions in the Incident Command System. The composition and specific authority and responsibility of the FQRC, as well as other fire training procedures are described in the <u>Flathead National Forest Fire and Aviation Management Incident Training and Qualification Program Administration Guide</u> (see Appendix 4.B.6)
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c. Fire Equipment and Supplies

The forest and park each maintain caches of fire equipment and supplies essential for the average initial attack and extended attack workload and the organizations identified by the units' fire preparedness planning processes. Equipment and supplies will be available in working condition and accounted for annually as part of the unit's preparedness review prior to the beginning of the declared fire season. The forest and park fire

management officers are responsible for providing standards for approved equipment and supplies and stocking levels to sub-units where caches are established.

1) Accountable Property and Fire Loss / Use Rate

Items with a purchase price greater than $5,000 and other items of lesser value, but determined to be "sensitive", are considered accountable, and will be individually inventoried and assigned to a responsible unit or individual. When accountable property is assigned to a unit for general availability, the unit fire management officer is responsible for its disposition.

Agency administrators are responsible for enforcing established fire loss use rates on incidents, both by providing direction for accountability to incident commanders and by monitoring local inventories of fire equipment and supplies assigned directly to the agencies for fire management activities. Acceptable loss / use rates are established by national policy and may be referenced in FSM 5164.44.

d. Fire Weather and Fire Danger

1) Fire Weather

Fire weather stations are maintained by each agency to monitor and report conditions across the forest and park. These remote automated weather stations (RAWS) provide data for daily fire danger indices (during the fire season) for the National Fire Danger Rating System (NFDRS) as well as information to catalog long-term weather trends. A list of fire weather stations and indices values is located in Appendix 4.B.7.

2) Fire Danger

The energy release component (ERC) is a standard descriptor of seasonal and daily fire danger. The ERC indicates the contribution that live and dead fuels make to potential fire intensity. The relative values of ERC are a good indicator of overall fire danger and are easily communicated to fire personnel and can be compared against known situations and personal experiences. Firefighters use the ERC to suggest the likelihood of fire behavior in known fuel types and weather conditions. Fire danger pocket cards have been prepared for the representative fuel types and fire weather history for the forest and park. The pocket cards are provided to all personnel, including transient firefighters temporarily assigned to wildland fire suppression

activities on the units. Fire danger pocket cards for the FNF and GNP can be located in Appendix 4.B.8.

e. Preparedness Levels/Step-up Plan

Both agencies establish guidelines for determining preparedness levels and specific actions to be taken on their units to address the wildland fire management workload that can be expected at each level.

See Appendix 4.B.9 for the FNF Preparedness Plan and Appendix 4.B.10 for preparedness actions to be taken by GNP.

f. Draw Down

Both the FNF and GNP have prepared fire management organization and procedural draw down plans to address increased wildland fire potential or activity. The purpose of the plans is to ensure an appropriate management and initial attack response capability is maintained for actual and forecasted conditions. Draw down will be coordinated among the forest and park as well as each of the other cooperating agencies and government entities in the NW Montana (NRCG) Zone at preparedness levels 4 and 5.

See Appendix 4.B.11 and 4.B.12 for FNF and GNP draw down plans.

3. Pre-Attack

a. Strategic Planning and Actions

Information to support wildland fire management pre-attack processes and decision-making is constantly being developed with improved GIS capabilities. Each unit develops and maintains data including resource values, infrastructure, transportation systems, ownership, fire history, fuel models and fire regimes, water sources, aviation hazards, among others, to enhance alternatives development, analytical capability, and current decision-support.

During the fire season, regional and local predictive services support is available to forest and park fire managers to assist in forecasting fire danger and fire behavior, risk assessment, and implementation of staffing and specific actions commensurate to current and forecasted conditions.

b. Fire Detection

The forest and park employ a three-pronged system of fire detection, including aerial observation, fixed detection (lookouts), and mobile detection (roving ground patrols). Aerial detection and mobile detection are provided with increased frequency on all or parts of each unit as fire danger increases seasonally, or intermittently following lightning storms. The BLM lightning detection system is used by Flathead Interagency Dispatch to monitor storm tracks and focus detection on areas with a high probability of ignition.

Fire detection lookouts are maintained and staffed on the forest at:

- Cyclone Peak, Glacier View RD (North Fork Flathead River)
- Firefighter Mtn, Hungry Horse RD (as needed) (South Fork Flathead River)
- Spotted Bear Mtn., Spotted Bear RD (South Fork Flathead River)
- Jumbo Mtn., Spotted Bear RD (Danaher / South Fork Flathead Rivers)
- Mission, Swan Lake RD (as needed) (Swan Valley)
- Cooney, Swan Lake RD (staffed by MT DNRC) (Swan Valley)
- Napa, Swan Lake RD (on NF, owned and staffed by MT DNRC)

Fire detection lookouts are maintained and staffed in the park at:

- Numa Ridge (North Fork Flathead River)
- Huckleberry Mtn. (North Fork Flathead River)
- Scalplock Mtn. (Middle Fork Flathead River)
- Swiftcurrent Mtn. (Continental Divide)

c. Dispatching and Resource Ordering

Resources will be mobilized based on completed resource orders, form ICS-259, placed by FIDC (Flathead Interagency Dispatch Center) to other coordination centers, and released from an incident on the same order. A standard resource categorization and numbering system is used. That system includes the following resource categories; aircraft, overhead, crews, equipment, supplies, and initial attack forces. Agency management fiscal codes must be included on each resource order.

4. Initial Attack

Initial attack includes the first actions taken to suppress an unwanted wildland fire. Those actions are usually initiated by the unit fire management officer or duty officer, or may be initiated by FIDC. The initial attack actions, as the most appropriate management response, are guided by the protection

objectives established for the area and described in the land and resource or general management plan. Each initial attack response should represent the most reasonable and probable course of action to provide for firefighter and public safety and minimize fire suppression costs and resource damages commensurate with fire potential, values at risk, and environmental and social impacts. Detailed information can be found in the FIDC Operating Plan, revised annually.

a. Initial Attack Priorities

FNF and GNP officials will jointly determine priorities and resource allocation when a complex fire situation exists in the North or Middle Fork drainages and firefighting resources are limited. This allocation will not be based upon agency boundaries but will instead be made on the basis of potential for damage to the values and resources to be protected.

Priorities for assigning critical or limited resources to initial attack incidents will be based on the following criteria:

- public and firefighter safety
- protection of improvements and private property
- protection of cultural and natural resources
- fire behavior potential as determined by fuels, weather and topography
- probability of success and consequences of failure
- suppression resource response times

b. Appropriate Management Response for Suppression

All unwanted wildland fires will be suppressed using an appropriate management response. The appropriate response to individual wildland fires will be determined by evaluation of public and firefighter safety, values to be protected and cost effectiveness, fire behavior, potential damages from suppression efforts, the probability of success and consequences of failure, and the availability of fire management resources.

Management responses may vary from fire to fire and sometimes along the perimeter of the same fire. Response options range from surveillance and monitoring without on-the-ground disturbance to aggressive suppression actions on all perimeters of the fire.

Flathead National Forest

Within FNF all unwanted wildland fires will be managed with a suppression response based on considerations of firefighter and public safety, land management objectives, current and forecasted fire weather and fire

behavior, values to be protected and cost effectiveness, the probability of success and consequences of failure, and resource availability. The initial response will be implemented according to procedures described in the <u>Flathead Interagency Dispatch Center Operating Plan</u>.

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c. Confinement as an Initial Attack Strategy

Confinement may be selected as a suppression strategy if allowed by land management direction, but confinement may not be used to meet resource objectives. The wildland fire situation analysis may show that confinement is the most appropriate strategy when the fire is expected to exceed initial attack capability or planned management capability

Safety of the public and firefighters should be the primary consideration when selecting the option of confinement. Additional considerations for selecting the most appropriate strategy include values to be protected, probability of success, and consequences of failure, cost effectiveness, land management objectives, and public and adjacent landowner concerns. The preferred strategy should be implemented as quickly, safely and efficiently as possible. Additional FNF direction can be found in Appendix 4.B.1.

d. Mobilization and Fire Response Times

Mobilization and operational procedures have been established to guide approved suppression responses to unwanted wildland fires. Response times to fires vary depending on preparedness level, availability of personnel and resources, other fire management activity in the area, and current local conditions.

Response times ("get-away") for initial attack resources vary by module type and preparedness level (1-lowest through 5-highest). See Appendix 4.B.9, and 4.B 10.

e. Restrictions and Special Concerns

1) Motorized or Mechanized Equipment Use

Fire suppression strategies and tactics that indicate the use of motorized or mechanized equipment must be in compliance with land and resource objectives and constraints that may be applicable. Those objectives and any such constraints are described in the appropriate land and resource management plans for the units.

2) Authority for Exemptions

Flathead National Forest

The appropriate line officer must authorize any use of motorized or mechanized equipment for fire management activities in all wilderness areas and in some non-wilderness areas where such restrictions apply to protect sensitive resources. Restricted activities may include aircraft landings and low-altitude tactical actions, motorized pumps and power saws used for fireline construction and fire suppression, and mechanized ground-disturbing equipment used for fireline construction or transportation. Restrictions on mechanized use in management areas outside of wilderness areas can be found in Appendix 4.B.1.

Line officers and fire managers will refer to FSM 2326 and Flathead NF policy, Procedures for Employing Motorized or Mechanized Wildland Fire Management Tactics in Wilderness Areas for direction, including procedures to request and document authorization for such equipment use (see Appendix 4.B.13).

Line officers and incident commanders have authority to supercede (exempt) natural and cultural resource considerations (restrictions) when a potentially life-threatening situation exists (FSM ID 2670-2002-1).

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Glacier National Park

For all fire management units, the park superintendent must authorize the use of any off-road mechanized equipment used in the suppression or management of wildland fires.

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3) Resource Advisors

A resource advisor will be assigned to all fires where there is concern that fire management activities may risk unmitigated damage to resources, and to any fire for which a Type 1 or 2 incident management team is assigned.

f. Cooperative Relations and Local Issues During Initial Attack

More than one agency may have fire protection responsibility for an area, particularly in the wildland-urban interface. Fires may involve multiple

jurisdictions, or land ownerships or burn on land where more than one government entity, federal, state, or local has a legally mandated responsibility and authority.

Fire protection responsibility usually rests with the agency that has jurisdiction for an area, but that responsibility may be conveyed to another agency through a written agreement.

In situations where multiple jurisdictions or agencies each have authority and responsibility it is essential to include those agencies in developing the fire protection and life safety objectives for an incident.

1) Unified Command

Unified command provides each agency or local government entity that has responsibility to manage an incident with a way to participate in the joint establishment of incident objectives, develop the strategy and tactics, set priorities, and assign resources.

Unified command is accomplished without any agency or entity giving up their authority, responsibility or accountability. In unified command, qualified personnel will be integrated into the incident management organization as appropriate and desired by each agency and entity.

The resources of all agencies should be included in a unified incident action plan and be assigned clear roles and will share common communications. Independent operation by multiple agencies and resources on the same fire ground is unsafe and may be reason to delay operations until coordination and cooperation are established.

Flathead National Forest

On the Flathead NF there are areas of National Forest System lands that have wildland fire protection provided by Montana DNRC. At the same time, the Forest Service protects some state and private lands within the national forest boundary. In either case, local government, represented by the respective county and including any of several rural fire districts serving this area, provide structural fire protection and suppression and may also have an overlapping responsibility for wildland fire protection.

The Forest Service does not have structure fire suppression responsibility, but may work cooperatively with local fire districts to protect structures from wildland fire. The county sheriff has the responsibility for public safety and the authority to take actions to close roads, evacuate citizens, and protect private property against trespass.

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Glacier National Park

National Park Service policy states; ". . .All wildland fires will be effectively managed, considering resource values to be protected and firefighter and public safety, using the full range of strategic and tactical operations…"

Reference the Bureau of Indian Affairs, Lewis and Clark National Forest and Glacier National Park Annual Operating Plan and other documents in Appendix 5.G.2 for information about other park agreements.

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g. Incident Commander

Each initial attack incident will have an incident commander (ICT5 or ICT4) assigned by the unit fire management officer, duty officer or appropriate supervisor. The name of the IC will be made known to all personnel engaged in management of the incident, including those in fire suppression, coordination, and support roles.

The unit fire management officer or duty officer may elect to assign an ICT3 to initial attack incidents that either involve a complex variety of resources (particularly when multiple air and ground systems respond), when fire potential or demonstrated fire behavior, or complex fire suppression strategy warrants a more experienced incident commander.

The initial attack incident commander will provide a thorough briefing to all resources assigned to the incident. The components of the initial briefing are found in the Incident Response Pocket Guide, NWCG publication PMS #461. The IC is also responsible for completing and submitting documentation in the Region 1 Incident Organizer.

5. Extended Attack and Large Fire Suppression

An extended attack incident may occur when actions to accomplish the initial attack objectives are not successful in the first burning or operational period, or when the organization of personnel and resources available to implement the initial attack objectives is inadequate. The extended attack period may include a transition from initial attack through escaped fire to large fire situation, during which the responsible agency administrator approves the WFSA (see "5b" below) to select a new suppression strategy.

All agencies with jurisdictional or protection responsibilities or resources committed to an extended attack incident should be involved in determining a strategy, setting priorities, assigning resources and objectives to suppress the fire as safely and efficiently as possible.

The Flathead NF and Glacier NP jointly participate with the Montana DNRC Northwestern Land Office in the NW Montana Type 3 Incident Organization Plan (see Appendix 4.B.14) that describes roles and responsibilities and lists current personnel qualified to fill extended attack (Type 3) incident management positions.

a. Extended Attack Organization

The Flathead NF and Glacier NP each recognize the need to manage unwanted wildland fires in the safest and most efficient manner possible. Together with the Montana DNRC Northwestern Land Office, the agencies have joined to form the Northwest Montana Type 3 incident organization to manage extended attack fires and other incidents requiring this level of management. The Type 3 incident organization can also be used to transition back from a Type 1 or Type 2 incident.

The Type 3 plan sets forth procedures to assemble an incident management organization and provide operating guidelines and procedures for agency administrators, fire managers, and dispatchers to mobilize personnel from an interagency resource pool to a Type 3 incident.

The minimum structure for a predesignated Type 3 incident management team will include the following positions and minimum qualifications:

- incident commander; *ICT3*
- safety officer; *SOF3*
- operations specialist; *DIVS*
- 2 tactical resource leaders; *any single resource boss qualification*
- planning specialist; *any planning unit leader qualification*
- logistics specialist; *any logistics section unit leader qualification*
- finance specialist; *any finance section unit leader qualification*

See the Northwest Montana Type 3 Incident Organization Plan for a complete discussion of the purpose, procedures, responsibilities, and current roster of agency personnel to form and operate a Type 3 incident management organization.

b. Exceeding the Existing Appropriate Management Response (AMR) and Selecting a New Strategy through a Wildland Fire Situation Analysis (WFSA)

A Wildland Fire Situation Analysis (WFSA) will be used to document the consideration of alternatives and the suppression strategy decision for further management of an ignition that has, or is expected to exceed, the initial suppression action guided by direction in the land management plan and this fire management plan. The WFSA will be prepared by the agency with protection responsibility, using fire management and resource staffs to develop the alternatives and conduct the analysis. The appropriate agency administrator will select the preferred alternative and direct its implementation.

The agency administrator will evaluate the WFSA each day until the suppression objective is attained. If assumptions or predictions made in the WFSA change during the course of implementation compromising the success of the selected alternative or invalidating incident management direction, the WFSA must be amended or revised and a new decision made and documented by the agency administrator.

Flathead National Forest

A wildland fire situation analysis (WFSA) will be prepared to document the selection of a new strategy for all unwanted wildland fires for which the initial selected suppression response has failed or is likely to fail under forecasted conditions. A WFSA will also be prepared to identify the appropriate management response for wildland fire use events and prescribed fires that exceed prescription and must be converted to wildfires. A WFSA will be revised when conditions change or assumptions critical to the success of the existing decision are proved to be invalid.

FSM 5130.41 sets qualifications for line officers to approve the WFSA.

FSM 5131.03 sets limits to suppression costs projected by the WFSA for line officer approval; $2 MM for district rangers, $10 MM for forest supervisors, $50 MM for regional foresters, and >$50 MM for the Chief of the Forest Service.

FSM 5131.14 sets approval and notification process for the WFSA and required analysis and documentation of the least cost alternative.

Elements included in the preparation of a WFSA are identified in Chapter 4 of the Wildland and Prescribed Fire Management Policy Implementation Guide.

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c. Fire Complexity and Incident Management Transition

A complexity analysis will be completed in conjunction with the WFSA to guide the agency administrator in determining what type incident management organization to assign to a wildland fire suppression event. The complexity analysis format is included with both the computer and paper WFSA formats and procedural instructions.

Flathead National Forest

A complexity analysis will be completed for all wildland fires for which the appropriate management response is suppression. Initial attack incident commanders will use the complexity analysis format included in the R1 Incident Organizer (Appendix 4.B.15).

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Transitions of incident management from one level to another will be determined by the evaluation of incident complexity. Any transition will occur in collaboration with the current incident commander and the unit fire management officer or duty officer. When a more highly qualified incident commander is required, the current IC will remain in charge of all incident actions until the new IC arrives on scene and receives a thorough briefing. The transition will include awareness by all assigned resources and personnel that a change in command will occur, and the actual takeover of the incident by the incoming IC from the outgoing IC will be announced to the on-scene and support incident organizations.

d. Delegation of Authority

When an incident management team is ordered, the agency administrator must provide a written limited Delegation of Authority and a briefing package to the incoming incident commander. An example of a Delegation of Authority and agency administrator briefing is located in Appendix 4.B.16.

Flathead National Forest

The FNF will issue delegations of authority to all incident commanders. Individuals qualified as Type 5, 4, and 3 incident commanders will receive a generic delegation to manage initial attack and extended attack incidents on the forest. Incident commanders of Type 2 and Type 1 incidents will receive a specific, comprehensive delegation for that incident. Specific delegations from the District Ranger to Type 3 incident commanders will be used when the duration of the fire is expected to extend for multiple burning periods, or other considerations indicate a need for clear direction.

See Appendix 4.B.17 for an example of a Type 5, 4, and 3 Delegation of Authority.

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e. Large Fire Management

If a large fire suppression incident (Type 1 or 2) occurs at either FNF or GNP, cooperative management with other jurisdictions may be required. The following information will be used in determining management actions and decisions:

- threats to life, property and resources
- availability of suppression forces
- current and expected fire behavior
- land management objectives, values to be protected, and the selected alternative from the WFSA

The protection agency will assume the lead in coordinating with all other involved agencies, FIDC, and arriving resources. Planning and preparation for suppression forces will be maintained at an appropriate level to manage initial attack at a level that may be expected in an average fire year. Management of incidents beyond the average fire year level will require assistance from adjacent cooperating agencies, or regional and national agency fire organizations through pre-positioning of resources and/or severity authorization and plan implementation.

Additional resource requests such as firefighting personnel, engines and aircraft, will be ordered by either the incident commander or the unit duty officer and will be placed through FIDC.

6. **Exceeding the Maximum Manageable Area (MMA) Identified in the Wildland Fire Implementation Plan (WFIP) during a WFU.**

When a WFU fire exceeds the MMA boundary the fire shall be declared an unwanted wildland fire (wildfire). The AMR shall be initiated to manage the wildland fire. Detailed analysis shall then be documented in a WFSA. Page 50, Chapter 4 of the Wildlland and Prescribed Fire Management Policy Implementation and Procedures reference guide contains special provisions that are applicable to wildland fire use.

See also section B.5.b. (above).

7. **Minimum Impact Suppression Tactics (MIST)**

All fire management activities will be conducted in such a way as to cause the least impact to the resources. The use of MIST will be stressed to all fire management forces. Methods and equipment used will be commensurate with the current predicted fire behavior, values to be protected, and land management objectives. The strategy selected will be that which will safeguard human lives and accomplish objectives in a cost effective manner while resulting in the least alteration of the landscape and disturbance of natural and cultural resources.

For unwanted wildland fires for which a suppression objective is applied, the term "minimum impact suppression tactics" will be used. Minimum impact suppression tactics will be utilized to halt the spread of fire in such a way as to protect natural and cultural values, and minimize the lasting impacts of fire suppression activities (Mohr 1988, NPS 1988). Minimum impact suppression tactics does not imply or infer a relaxation of safe firefighting practices. Fire lines will be located to minimize the need for felling and bucking trees. Wet

lines, foam, and the use of natural firebreaks all contribute toward minimizing suppression impacts on resources.

Fire camps and other incident facilities, when practical, will be located where minimal impact will occur to resources. An agency resource advisor must approve the location of all major incident facilities when placed on federal land.

Further guidelines for the minimum impact suppression program can be found in "A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment – 10-Year comprehensive Strategy – Implementation Plan (May 2002)". This document was accepted by the National Wildfire Coordinating Group on June 26, 2003 and provides a framework that both the FNF and GNP will utilize when applying MIST. (see Appendix 4.B.18)

8. **Emergency Rehabilitation and Restoration**

Impacts to land and resources from fire management activities and fire effects often require some form of rehabilitation or restoration.

Interagency guidelines to be followed include:

- Minimum impact suppression tactics will guide actions to mitigate actual or potential damage from wildland fire suppression activities.
- Mitigation of suppression damage is specified in incident action plans.
- Burned area (emergency) rehabilitation plans will be prepared as necessary, following respective agency guidelines.

Flathead National Forest

Short and long term impact mitigation measures are outlined in FSM 2520.
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Glacier National Park

Short and long term impact mitigation measures are outlined in Reference Manual RM-18 (NPS), Interagency Burned Area Emergency Response (BAER) Handbook, and Director's Order #18.
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9. **Fire Records and Reports**

The agency fire management officer is responsible for all fire management records and reports, although this responsibility may be delegated to others on the fire management staff. Archived records and reports are to be held as permanent historic resource management records.   Refer to the table below for a description of records and reports specific to each agency.

Table 1 — Records and Reports

REPORT	RESPONSIBLE OFFICIAL	DISTRIBUTION	FREQUENCY
DI-1202 Fire Report (for fire for resource benefit, include narrative, WFIP, daily WX forecasts, growth maps, costs & monitoring data; attach WFSA as appropriate)	NPS Superintendent USFS Supervisor (Note: separate NPS signature protocol exists for WFIP; see Section 9.8)	Copy (1202 only) to archives (SACS) within 10 work-days Fire use package to files	per incident/WFRB
interagency fire qualification form and red card	designated fire program assistant interagency dispatcher (FIDC) (NPS/USFS) signed by FPM's	affected personnel	annually
situation report (daily May 15 – September 30)	interagency dispatcher (FIDC)	briefings bulletin boards internet, etc. unit FMO	daily during season
R1 Incident Organizer	initial attack IC	submit to unit fire manager	per incident
fire weather/Indices (daily; see dates above)	interagency dispatcher (FIDC)	staffing levels (ERC) received by dispatch (USFS)	daily
daily cost accounting (wildland fire use)	IC fire use manager Rx burn boss	as agreed	schedule to be determined
WFSA large fire closeout	agency administrator incident commander	agency-specific agency administrator	per incident per incident

C. Wildland Fire Use

Wildland fire use refers to the management of naturally ignited wildland fires that will accomplish specific, pre-stated resource management objectives in predefined geographic areas defined by the Flathead National Forest Land and Resource Management Plan and Glacier National Park General Management Plan, and outlined in this joint FMP. (Also see the Bob Marshall Complex Fire Management Implementation Guide).

Fire history research indicates that natural community mosaics throughout the mountain states resulted from periodic fires (Fischer and Clayton 1983, Gruell 1983). Without fire, vegetation communities decline and biodiversity diminishes. Some species appear only during the first few years following fire and certain plants require the heat of fire for germination. A wildland fire use program perpetuates the natural ecosystem and enhances biological diversity.

The Wildland and Prescribed Fire Implementation Procedures Reference Guide (1998) provides direction, guidance, and assistance in interpreting the policy for the various federal wildland fire agencies. The guide provides specific direction for implementation of NPS and USFS policies.

1. Objectives of Wildland Fire Use and Relationship to Land and Resource Management Direction

The objectives of the wildland fire use program are to:

- The safety of fire monitors, modules and managers and the public is the first priority in every fire management activity.
- Allow fire to play its role as an essential ecological process and natural agent of change.
- Protect all structures, cultural sites, campgrounds, bridges and other improvements that could be damaged.
- Allow for reasonable visitor use of areas that may be immediately impacted by fire.

2. Parameters for Wildland Fire Use Decisions

Flathead National Forest

FNF parameters can be found in the Bob Marshall Complex Wildland Fire Use Guidebook, 2004.

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Glacier National Park

The parameters used by GNP are documented in Appendix 4.C.1.

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3. **Pre-Planned Actions for Implementation of the Wildland Fire Use Program**

Implementation procedures and actions of the wildland fire use program on the forest and in the park are specifically described in respective plans which support the units' land and resource management plans and objectives to restore natural fire regimes in certain areas.

Flathead National Forest

The Bob Marshall Complex Wildland Fire Use Guidebook provides the implementation procedures and actions for wildland fire use on approved areas of the FNF.

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Glacier National Park

See Appendices 3.D.2, 4.B.2, 4.C.1 and 4.C.3.

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4. **Wildland Fire Use Project Implementation Procedures**

The unit fire management officer or designee will use the WFIP to assist in making the decision on the action to be taken to manage a candidate wildland fire use event. The recommendation for managing a wildland fire for resource benefit will be taken to the agency administrator or designee for approval.

Determination of the cause of ignition will be the first criteria in determining how the fire will be managed. If the fire is human caused or is located in a fire management unit where wildland fire use is not authorized, the appropriate management response will be suppression. If a fire results from a natural ignition within a fire management unit where wildland fire use is authorized, all prescription elements are met, and it can be safely and cost effectively managed, then that ignition may be managed as a wildland fire use event.

Each wildland fire use event requires a fire use manager to be assigned by the responsible agency administrator. A fire effects monitor should also be assigned to any fire use event that is actively burning. As complexity and size

of a fire increase, management requirements and staffing also increase. Additional positions needed may include a fire behavior analyst (long and near term), geographic information specialist, and additional fire effects monitors. Functional areas such as planning, operations, logistics and finance will be staffed according to the complexity of the event. An interagency fire use team will be ordered if the complexity of a fire or complex of fires exceeds the ability of the forest or park to manage them.

The Montana Department of Environmental Quality (DEQ) will be notified of all fire use events at any time of the year. Additionally, the Montana Idaho Airshed Group will be notified of fire use events during the months of September, October and November. Both the FNF and GNP will utilize best available control technology (BACT).

BACT, for Montana burners, means those techniques and methods of controlling emissions of pollutants from an existing or proposed open burning source which limit those emissions to the maximum degree which the Department of Environmental Quality determines, on a case-by-case basis, is achievable for that source, taking into account impacts on energy use, the environment, the economy and any other costs, including the cost to the source.

Such techniques and methods may include the following:
   a. Scheduling of burning during periods and seasons of good ventilation;
   b. Applying dispersion forecasts;
   c Utilizing predictive modeling results from DEQ to minimize smoke impacts;
   d. Limiting the amount of burning to be performed during any one time:
   e. Using ignition and burning techniques that minimize smoke production;
   f. Selecting fuel preparation methods that will minimize dirt and moisture content;
   g. Promoting fuel configurations that create adequate air-to-fuel ratio;
   h. Prioritizing burns as to air quality impact and assigning control techniques accordingly;
   i. Promoting alternative treatments and uses of materials to be burned.

a. **Wildland Fire Implementation Plan (WFIP)**

Each wildland fire ignition will be assessed and a determination made whether to manage the fire as wildland fire use event or as a fire to be suppressed. Wildland fire use events will have a WFIP developed for each stage (I through III) appropriate to the complexity of the fire, and will undergo daily validation.

The WFIP is described in detail in the <u>Interagency Wildland Fire Implementation Guide</u> and serves as the documentation process for each wildland fire use event.

The WFIP elements, procedure for completion and format can be found in Appendix 4.C.2.

Flathead National Forest

A WFIP will only be initiated for wildland fires originating in the fire management unit where fire use for resource benefits is approved (FMU-A). Stage I of the WFIP will be completed for all ignitions occurring in FMU-A, leading to a determination whether the fire will be managed for resource benefits or suppressed. For ignitions that are determined to meet prescription and will be managed as wildland fire use events, the responsible agency administrator, commensurate to the complexity of the fire use event, will complete Stages II through III of the WFIP.

The agency administrator, supported by the fire use manager and unit fire management officer, will prepare a WFIP to evaluate and document decisions for the appropriate response to candidate wildland fire use events. Pre-planned criteria and implementation procedures for forest areas approved for wildland fire use that is detailed in the <u>Implementation Guidebook for the Bob Marshall Complex Fire Management Plan</u>.

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Glacier National Park

A WFIP will be initiated for all wildland fires originating in GNP. The WFIP Stage 1, initial fire assessment provides the decision framework for selection of the appropriate management response. The assessment will include the current and predicted situation, appropriate administrative information, and decision criteria that will lead to the initial decision as to whether the fire will be managed for resource benefit or suppressed. Only the most complex fires managed for resource benefit require completion of all stages of a WFIP.

For all wildland fires occurring in GNP, a WFIP Stage I will be completed each day as a daily situation summary and assessment for wildland fire use. Approval of Stage I signifies validation of the appropriate management response for that day. Stage II is to be completed initially, and as the fire grows in size and new contingencies develop. Stage III is triggered by either the Stage III needs assessment chart found in Stage II, or through the periodic fire assessment. The fire management officer is responsible for preparation of the plan.

When a wildland fire cannot be controlled during the initial suppression response action or the appropriate management response has not been successful, the WFIP has been exceeded.

If the objectives set in the WFIP fail or are likely to be unobtainable under forecasted conditions, the fire must be considered to be in extended attack and a new strategy must be selected through the wildland fire situation analysis process.

See the Wildland and Prescribed Fire Management Policy and Implementation Procedures Reference Guide for further guidance on procedures for periodic assessment of wildland fire use applications.

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b. Periodic Assessment

If it is determined that an ignition meets criteria, and will be managed for wildland fire use, the decision to maintain fire use status must be validated and documented daily, or according to pre-determined assessment period, by the responsible agency administrator. Daily review is required to ensure that all prescription conditions continue to be met.

The authority and responsibility for approval of all wildland fire use lies with the agency administrator.

Flathead National Forest

Wildland fire use approval authority for FNF personnel is established in the annual qualifications and certification letter signed by the forest supervisor and maintained in the 5140 files.

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Glacier National Park

Wildland fire use approval authority provided by NPS policy cannot be delegated below the designation of acting agency administrator.

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5. Potential Impacts of the Wildland Fire Use Program

Wildland fire use should perpetuate a variety of plant communities and vegetation successional stages. Fire-adapted vegetation will continue to be present. Populations of animal species will generally benefit over time from the diversity in communities and habitats resulting from fire.

Adverse impacts from wildland fire use may include smoke production; loss of cultural, historical or archeological resources; decreased visitation resulting in decreased revenues for local businesses and commercial services; and, in the most extreme situations, loss of private property and improvements.

Glacier National Park

See Appendix 4.C.3 for a detailed analysis of potential impacts from wildland fire use in GNP and parameters for management decisions**.**

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6. **Organization Necessary to Implement the Wildland Fire Use Program**

Only personnel who meet National Wildfire Coordination Group and agency qualifications standards will implement planning and execution of the wildland fire use program. Trainees will be included in the wildland fire use programs of both agencies whenever possible, and when fully qualified individuals are available to supervise and monitor their performance.

At a minimum, every wildland fire managed for resource benefits will have a fire use manager assigned by the responsible agency administrator.

Interagency qualifications standards for wildland fire use positions can be found in the Wildland and Prescribed Fire Qualification System Guide, PMS 310-1.

Flathead National Forest

Forest Service qualifications standards for wildland fire use positions are found in FSH 5109.17, 25.2 Fire Use Positions Qualifications. The FNF maintains a database of forest personnel who meet wildland fire use position standards. The fire qualifications review committee is charged to review training and experience and recommend certification of all wildland fire use qualifications for forest personnel. Wildland fire use qualifications are identified annually on the individual fire qualification form, or red card.

National and regional qualification standards for forest supervisors and district rangers to approve the implementation of wildland fire use plans have been established. Those standards are used to annually evaluate the training and experience of each line officer and acknowledge individual compliance with those standards. The forest maintains a database of each line officer's qualifications and authorization to approve wildland fire use plans and implement wildland fire use actions. See Appendix 4.C.4 for wildland fire use approval knowledge and experience requirements and individual qualifications.

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Glacier National Park

See Appendices 3.D.2, 4.B.2, 4.C.1 and 4.C.3.

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7. **Public Information and Interpretation of the Wildland Fire Use Program**

Wildland fire use offers a timely opportunity for public information, education and interpretation to assist in building support for resource management and the natural role of fire in Northern Rockies ecosystems. Actions to be implemented for informing the public and providing interpretation of wildland fire use include:

1) Pre-fire - When planning, zoning, and decision criteria are put into effect, public information officers can respond with thematic programs, guided walks, publications, or exhibits which incorporate this information along with the ecological and resource management rationale for natural fire prescriptions. Public information regarding wildland fire use planning should be distributed through the park and forest public affairs offices.

2) During the fire - The public affairs office will assume the lead role for coordinating information to be released to the media and the public. Because of the high and often emotional interest in fires, it is essential that key agency staff be fully integrated into information dissemination about on-going fires including, but not be limited to daily briefings, receipt of press releases, and regular communication by telephone and radio.

   When fires are burning, appropriate information should be placed at trailheads, campgrounds, visitor contact points, and outfitter bases/camps to supplement visitor information concerning the activity. Signs will be used to direct, inform, guide and caution visitors regarding existing fire conditions and public safety.

3) Post-fire - Following the fire, agencies should consider planning for:

   - Interpretive devices such as wayside exhibits or self-guided nature trails.
   - Interpretive services such as guided walks through burn areas deemed safe.
   - Illustrated evening interpretive programs incorporating slides taken during and following the fire to illustrate ecological processes at work.
   - Formal exhibits or new publications as appropriate.

- Educational activities, including walks through old burns or viewing before-and-after photographs of burns to educate visitors to positive ecological effects of wildland fire use.

8. Wildland Fire Use Project Record

All fire records will be kept at the park headquarters and forest supervisor's office respectively, and are the responsibility of the agency fire management officers.

The final project record for a wildland fire use event will include:

- agency-specific individual fire report
- daily narrative or log of the fire
- record of daily validation
- wildland fire implementation plan
- daily weather forecasts and spot weather forecasts
- cumulative fire map showing acreage increases
- photo log of fire activity, fire effects, and management actions
- total cost summary
- monitoring data
- critique of fire projections on wildland fire implementation plan
- Burned Area Emergency Stabilization and Response reports
- impacts and effects of fire on cultural and natural resources
- additional written documentation relevant to the fire use event

Flathead National Forest

The responsible unit fire management officer will complete a FS-5100-29 Individual Fire Report for all wildland fire use events. Direction for completing this report is found in FSH 5109.14.

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a. Funding and Fiscal Tracking

The fiscal tracking identifier assigned for wildland fire use events will be used and an account will be established for each fire. All costs for management of a wildland fire use event will be charged to the account assigned to that fire. This will include costs directly charged to the fire and those that are made in support of the fire. The fire management office will be responsible for gathering and tracking the charges for each wildland fire use event.

Flathead National Forest

For USFS fires, the assigned project number is prefixed with a "G" for wildland fire use events. If the decision is made to convert a fire use event to a wildfire, the "G" job code prefix will be replaced by a "P (e.g. wildland fire use event "G123456", would then be coded "P123456".)

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9. Conversion of a Wildland Fire Use Event to a Wildfire

If a wildland fire use event exceeds the WFIP and is converted to an unwanted wildland fire, a new fire cost accounting number will be assigned. Only those acres burned prior to the fire being converted to an unwanted wildland fire will be recorded as wildland fire use accomplishments. Acres burned after conversion will be counted as wildfire acres for reporting purposes.

A WFSA must be completed whenever a wildland fire use is converted to an unwanted wildland fire.

D.   Prescribed Fire

The prescribed fire program should focus on areas where wildland fire use cannot be safely or efficiently used to restore vegetation to a desired condition. Prescribed fire can also be used to reduce fuel loading in areas where it has been deemed a hazard and a risk to values to be protected.

In both the FNF and GNP prescribed fire is authorized to accomplish land and resource management objectives, including maintaining healthy and dynamic ecosystems that meet those objectives.

Fuels treatment is important to the management of vegetation communities, and to achievement of resource management goals. The need to conduct prescribed burns, manage exotic plants, and restore the functioning of disturbed vegetation communities is documented in numerous scientific reports and agency plans.

Some vegetation communities have been altered from their natural condition by past management practices, including fire suppression. That alteration may include a decrease in native grasses and herbaceous cover, and an increase in non-native and woody species. As woody species increase and age, grass and herbaceous vegetation tend to decline.

Prescribed fire and mechanical or manual fuel reduction are used to manipulate the fuel bed. Wildland fire use and prescribed fire are appropriate management actions to facilitate the restoration of native vegetation and natural ecosystems.

1. Prescribed Fire Planning and Documentation

Prescribed fire burn units may vary in size according to resource management objectives, but larger units may better assist in landscape scale restoration and are usually more cost effective to plan and implement. Prescribed fire boundaries should optimize the inclusion of natural features (variations in slope, aspect, or vegetation), natural fuel breaks, and roads and trails as perimeter controls. Proposed construction of perimeter fire control lines should be evaluated for impacts to natural and cultural resources, cost effectiveness, and defensibility.

a. Prescribed Fire Planning

All prescribed fire projects will have an approved plan containing measurable objectives and a prescription for implementation and will involve collaborative planning with each agencies respective interdisciplinary team.

FNF and GNP will prepare annual program of work plans identifying all planned prescribed fire activity. Approval of the annual prescribed fire program does not constitute final approval of individual burn plans.

Planned ignition will be conducted in designated burn units and within specified weather and fuel moisture parameters. Prescriptions for future prescribed fires may be adjusted as deemed necessary by monitoring results, and information gained from research burns and further refinement of the planned ignition program.

Research burns may be conducted with approval of the superintendent or forest supervisor, and must meet the same requirements as any other planned ignitions.

Each planned ignition will be monitored in order to maintain current information on fire size, location and rate of spread, intensity and potential threats, which might require suppression actions in the event of an escape.

A complexity analysis will be completed for each prescribed fire project and approved by the responsible agency administrator. The result of the analysis will determine the organization required for implementation of the prescribed fire plan.

Flathead National Forest

Prescribed fire complexity will be determined for projects planned by the FNF by using criteria described in FSM 5142.1.

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b. Long Term Prescribed Fire Strategy

See Appendix 4.D.1 for the fuel treatment history of the FNF, and Appendix 4.D.2. for the fuel treatment history of GNP.

Flathead National Forest

The FNF will follow direction in the Wildland and Prescribed Fire Management Policy Implementation Procedures Reference Guide (FSM 5108).

See Appendix 3.D.1 for a discussion of each management area. Fuel management direction and opportunities described in the FNF LMP are located in Appendix 4.B.1.

A schedule of fuel management projects and potential or proposed activities can be obtained from the fire management officer.

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Glacier National Park

A five-year fuels treatment schedule has been developed and is located in Appendix 4.D.5, and will be reviewed annually. Planned ignitions will be used in specially designated units to restore safe fuel levels, maintain fire-dependent natural communities, and achieve other management objectives stated in Chapters II and III of this plan. Frequency and intensity of natural fires will be duplicated to the maximum extent possible, when safety and control can be assured.

GNP will follow the guidelines established in Reference Manual 18.

National Historic Preservation Act Section 106 Compliance must be completed for each prescribed fire project prior to implementation until such time that a programmatic agreement is completed.

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c. Organization Necessary to Implement the Prescribed Fire Program

Only personnel who meet National Wildfire Coordination Group and agency qualifications standards will implement planning and execution of the prescribed fire management program. Trainees will be included in the prescribed fire programs of both agencies whenever possible, and when fully qualified individuals are available to supervise and monitor their performance.

The prescribed fire burn boss will fill positions according to the organization plan, responsive to the complexity of the prescribed fire project, identified in the approved prescribed fire plan. Personnel will be assigned to the project in consultation with the fire management officer. Cooperators that could assist in the event of an escaped fire are listed in Appendix 5.F.1.

Flathead National Forest

FNF will follow guidelines for prescribed fire personnel qualifications established in FSM 5140 and FSH 5109.17 Fire and Aviation Management Qualification Handbook.

The FNF maintains a database of forest personnel who meet prescribed fire position standards. The fire qualifications review committee is charged

to review training and experience and recommend certification of all prescribed fire qualifications for forest personnel. Prescribed fire qualifications are identified annually on the individual fire qualification form, or red card.

National and regional qualification standards for forest supervisors and district rangers to approve prescribed fire plans and their implementation have been established. Those standards are used to annually evaluate the training and experience of each line officer and acknowledge individual compliance with those standards. The forest maintains a database of each line officer's qualifications and authorization to approve and implement prescribed fire plans

See Appendix 4.C.4 for prescribed fire approval knowledge and experience requirements and individual qualifications.

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Glacier National Park

GNP will follow guidelines for prescribed fire personnel qualifications established in the NWCG 310-1.

The fire management officer will maintain a current roster of personnel with prescribed fire qualifications.

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d. Prescribed Fire Prescriptions and Monitoring

Each prescribed fire plan will include a prescription to accomplish stated resource objectives. The prescription will include a range of acceptable fuel conditions, weather conditions, ignition techniques, area to be treated, and desired fire effects.

FNF will ensure compliance for tracking and monitoring of all prescribed fires in accordance with FSM 5142.21 and FSM 5147. Fire weather will be recorded for at least 1 day prior to the planned ignition. Fire weather observations will be collected during the ignition and burning phases on an hourly basis or as directed by the burn boss.

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All prescribed fires must include an adequate number of fire effects monitors to record and collect site weather, smoke dispersal, and fire behavior data. A prescribed fire monitoring report that includes weather observations, fire behavior observations, and immediate post fire effects

will be completed for each burn.

For GNP, all fire monitoring will be documented according to the fire monitoring plan (Appendix 6.A.1).

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1) Fire Behavior Monitoring

Monitoring fire behavior is critical to understand the relationship between site and weather conditions, management actions, and outcomes. Monitoring assists managers in recognizing and adjusting actions to changing conditions in real-time, and to include more precision in future planning.

Table 2. Fire Behavior Monitoring Criteria

Topographic Variables	Smoke Characteristics
- percent slope - aspect of terrain	- visibility - total smoke production - mixing height - transport and surface wind speeds and direction - documented complaints from downwind areas
Fuel Models	**Fire Weather Variables**
- identify fuel(s) that are carrying the fire - collection and measurement of fuel samples	- air temperature - relative humidity - wind speed - wind direction - percent shading and cloud cover 10-hour time lag fuel moisture - live fuel moisture - drought index
Fire Characteristics	
- linear rate of spread - perimeter and area growth - flame length - fire spread direction - flame zone depth	

2) Post Fire Effects Monitoring

Glacier National Park

Post fire effects monitoring will be done in concurrence with the Glacier National Park Fire Monitoring Plan (Appendix 6.A.1).   Any deviations from the plan must be approved by the Regional Fire Ecologist, who is located in the Intermountain Regional Office in Denver, Colorado. All prescribed fires will be monitored to assist park management in ascertaining whether fire management objectives are being met and to refine burn prescriptions.

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e. Evaluation of Prescribed Fire Projects

1) Prescribed Fire Critiques

A critique to gauge the success of each prescribed fire implementation will be conducted as soon as possible after the completion of the project. Post-burn critiques will follow the guidelines established in Chapter XI A. - After-Action Reviews.

f. Prescribed Fire Project Record

The burn boss will use the unit log form to document significant prescribed fire actions.

1) Final Documentation

The prescribed fire burn boss is responsible for completion of the final planned ignition record no later than 10 days after the burn is declared out. The record will be filed in the appropriate fire management office and will include:

- individual fire report
- spot weather forecast(s)
- pre-burn and post-burn monitoring reports
- actual implementation procedures and approved changes to the prescription
- cost summary
- final fire map
- fire critique/recommendations for future burns
- unit logs filled out by burn personnel

- photographs taken during implementation and post-fire monitoring and evaluation
- any other pertinent information regarding the burn

See Chapter 4.D.2 (below) for reporting requirements for escaped prescribed fires.

g. Historic fuel treatment map

Flathead National Forest

See Appendix 4.D.1 for FNF's fire history and fuel treatment map.
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Glacier National Park

See Appendix 4.D.2 for Glacier's fire history and fuel treatment map.

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h. Prescribed Fire Plan Requirements

Prescribed fire plans must be prepared and approved in advance of the planned implementation of the burn.

The prescribed fire plan will follow agency formats, and will include a discussion of the following elements:

- acknowledgement of responsible agency administrator's approval
- land and resource objectives for using prescribed fire
- cultural resources in and around project area
- go, no-go checklist
- funding sources
- pre-burn conditions and requirements
- pre-burn monitoring
- pre-implementation briefing
- test-fire requirement and objectives
- prescribed fire prescription
- special conditions; public and personnel safety
- prescribed fire organization
- public information plan
- communications
- ignition plan

- holding plan
- patrol and mop-up plan
- escape contingency
- smoke management and air quality
- monitoring plan

All prescribed fires will be implemented in compliance with the standards and direction specified in the approved prescribed fire plan.

Flathead National Forest

FNF will use the direction provided in FSM 5142.2. Forest Service authority and responsibility for approving fire use plans is described in FSM 5140.4.

FNF prescribed fire plans will contain documentation of complexity rating decisions, as well as address each of the required elements described in the Wildland and Prescribed Fire Management Policy Implementation Procedures Reference Guide (FSM 5108, 5140.32, and 5142.2).

The FNF will use the forest's standard prescribed fire plan format. (see Appendix 4.D.3)

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Glacier National Park

GNP will use the prescribed burn plan format provided in Reference Manual 18, Chapter 10, Wildland and Prescribed Fire Management Policy and Implementation Procedures Reference Guide. See Appendix 4.D.4 for the prescribed fire plan format used by GNP.

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1) Pre-ignition Briefing and Forecast Requirements

Pre-ignition briefing and forecasts must meet the following minimum criteria:

- All assigned personnel must be briefed prior to ignition to ensure safety considerations are clearly understood and prescribed burn objectives are clearly defined.
- During the briefing, the prescribed fire organization, specific job elements, and each individual job task will be discussed.
- Terrain, slope, and fuel conditions will be described.
- Escape routes will be clearly defined.

- A specific fire-behavior weather forecast will be obtained and the information therein disseminated to personnel prior to ignition. The forecast will include specific fire-behavior weather parameters.

2) Notification of Publics and Cooperators

Each prescribed fire burn plan will include a notification and contact list that identifies key cooperators and individuals to be notified of the prescribed fire activity. Responsibilities and timeframes for making contacts are detailed in the burn plan. The burn boss will initiate the chain of contacts as the first stage of its implementation.

2. Exceeding Parameters of the Prescribed Fire Plan

If prescribed fire prescription parameters are exceeded, but the burn remains within unit boundaries, actions must be taken to keep the fire within the unit boundary. If the fire exceeds the unit boundary or the maximum allowable perimeter and cannot be contained with available resources and funding, it will be declared an escaped fire.

If the burn is declared "escaped," then a Wildland Fire Situation Analysis must be completed and appropriate action must be taken. Spot fires may not constitute an escape if they can be contained in accordance with standards identified in the burn plan.

Flathead National Forest

The FNF will report escaped fires using the direction provided in FSM 5140.
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Glacier National Park

GNP will follow RM18 Chapter 9 to develop a WFSA in cases where implemented prescribed fire is unsuccessful.
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3. **Air Quality and Smoke Management**

   a. **Air Quality Issues**

   Smoke from wildland burning, although a natural phenomena in the northern Rocky Mountains, is fast becoming a less acceptable occurrence where rapid human development and occupancy is occurring. This is an area with generally excellent natural air quality, not affected by large population concentrations or industry.

   Clean air for public health and enjoyment and pristine vistas of spectacular mountain landscapes is a notable attraction of northwest Montana. Consequently, land management decisions, as well as natural events such as wildfires, that produce large amounts of smoke for long durations can be controversial. Land and resource programmatic management plans and specific management activities must address the production, duration, and dispersal of smoke as well as compliance with existing regulations imposed by federal, state, and local agencies.

   b. **Program Compliance to Mitigate Adverse Smoke Impacts from Management Activities**

      1) **Sensitive Receptors and Airsheds**

      Air quality over the FNF and GNP is considered good to pristine. Glacier National Park and the Bob Marshall and Mission Mountains wilderness areas are designated Class I airshed areas under the 1977 Clean Air Act. The Flathead Indian Reservation is a nearby Class I airshed area. All National Forest System lands that are not included in Class I airshed areas are designated as Class II airsheds.

      Down-wind receptors of smoke emissions from wildland and prescribed fires originating on forest and park lands include the developed areas of the Flathead Valley, Waterton Valley, the Swan Valley, the Mission Valley, lands of the Blackfeet Nation, the Rocky Mountain Front, and the city of Great Falls and surrounding area. Smoke producing activities on forest and park lands may result in local down-slope dispersion into local valleys influenced by drainage topography and southerly and easterly dispersion aloft influenced by prevailing winds. Smoke can flow across the Continental Divide hundreds of miles over central and eastern Montana and North Dakota from large-scale, long duration wildland burning in Western Montana.

2) Smoke Management Restrictions and Regulatory Compliance

Both the Flathead NF and Glacier NP are members of the Montana/Idaho State Airshed Group. The Airshed Group is composed of entities that conduct prescribed burning and agencies that regulate such burning. The purpose of the Airshed Group is to minimize or prevent smoke impacts to communities while using fire to accomplish land management objectives.

The <u>Montana/Idaho State Airshed Group Operating Guide</u> contains agreements, guidelines, plans, and procedures for the successful operation of the Airshed Group, including compliance with all federal, state, and local regulations for open burning. Each agency supports and adheres to the standards of the Airshed Group.

The fire management officer will obtain necessary burn and/or air quality permits from the State of Montana prior to implementation of any prescribed burning. All wildland fire suppression and wildland fire use plans will include appropriate consideration of smoke production, duration, and impacts. The WFSA will address smoke for each fire suppression alternative. The WFIP will address smoke in Stage III for each fire use event planned for long-term management.

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E. Non-Fire Fuel Treatment Applications

1. Mechanical Treatment and Other Applications

a. Annual Mechanical Fuel Treatment Program Activities

Particular areas of hazardous fuels needing mechanical treatment will be assessed according to cost effectiveness and impact to the resource. Areas that have previously received treatment will be reassessed to determine when the next treatment will be scheduled.

b. Equipment and Seasonal Use Restrictions

Project equipment will be selected for effectiveness and to minimize resource impacts. Equipment selected and the timing of the treatment will be subject to approval by the superintendent or the district ranger.

c. Mechanical Fuel Treatment Prescriptions and Project Monitoring

Project specific monitoring needs will be established prior to implementation and documented in the project file. The objectives of monitoring may encompass: quantifying the success of the treatment, documenting any resource damage and conducting post project assessment to identify undesirable species occurrence or other effects of the treatment.

d. Evaluation of Mechanical Fuel Treatment Projects

Upon completion of each project an evaluation will be conducted to measure how well goals and objectives were met. The evaluation will be used to gauge the effectiveness of treatment methods, resource damage and other relevant information useful to planning future projects. This information will be documented in a project completion report.

e. Mechanical Fuel Treatment Project Record

Mechanical fuel treatments (treatments by methods other than prescribed fire or wildland fire use) will be documented in unit project files and locations of activities recorded in GIS databases.

f. Annual planned project list and cost accounting

Both the FNF and GNP utilize the National Fire Plan Operating and Reporting System (NFPORS) for documenting the planning and costs of mechanical fuel treatments.

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V. FIRE MANAGEMENT ORGANIZATION AND BUDGET

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A. Organizational Structure of the Fire Management Programs

Flathead National Forest

The fire management program is the responsibility of the forest supervisor. The fire and aviation program leader provides staff assistance to the forest supervisor, resource staff officer, and district rangers, and oversees the implementation of this fire management plan. The district fire management programs are the responsibility of the district rangers. District and zone fire management officers provide staff assistance to the rangers for planning and implementation of the ranger districts' fire management programs.

The forest's fire management program is decentralized with overall policy and program coordination provided by the fire and aviation program leader (fire management officer). Ranger districts are organized with fire management staffs for the Swan Lake RD at Bigfork, the Talley Lake RD at Whitefish, and the Three Forks Zone (Glacier View, Hungry Horse, and Spotted Bear RDs) at Hungry Horse, with summer operations also at Spotted Bear.

(see Appendix 5.A.1)

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Glacier National Park

Fire management works within the Resource and Visitor Protection Division supervised by the chief ranger, who, in turn, works directly for the superintendent. Line authority resides with the superintendent.

The fire management officer is directly responsible for the park's fire management program and is the point person for fire management issues. This entails coordinating with cooperating agencies, the public, Intermountain Region Fire Management Office, and Fire Management Program Center staff.

(see Appendix 5.A.2)

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B.   Fire Program Funding

Wildland fire management programs are funded by annual appropriations made to the agencies, recommended by the President and authorized by congress. Forests and parks receive allocations for preparedness programs by respective Regional distributions of appropriated funds. Those allocations are provided to finance the units' wildland fire management organizations and activities for fire suppression preparedness and hazard fuels management. Fire suppression is financed by emergency appropriations separate from the agencies annual preparedness funding. The forthcoming Fire Program Analysis (FPA) will replace existing fire management budgeting programs for both agencies.

Flathead National Forest

The FNF fire management program is funded by allocations based on out-year planning using the National Fire Management Analysis System (NFMAS). Fire management analysis is directed by the Forest LMP (see Appendix 4.B.1). The forest fire program leader is responsible for preparing the NFMAS analysis and annual updates. A complete revision of the forest NFMAS analysis is made approximately every five years.

NFMAS documentation is located in Appendix 5.B.1.

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Glacier National Park

FIREPRO is the mechanism for funding requests and resource allocations. The fire management officer is responsible for the management of all FIREPRO funding for the park. Funding is available for engine maintenance, personal protective equipment, and training on an as-needed and available basis.

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C.   Fire Management Within the Greater Organization

See Section V.A. (above) and Appendices 5.A.1 and 5.A.2.

D.   Responsibilities for Fire Management Decisions

The park superintendent, forest supervisor or appropriate district ranger, is responsible for approval of all strategic decisions pertaining to fire management actions, including those associated with suppression of unwanted wildland fires or implementation of wildland fire use and prescribed fire.

The incident commander, prescribed fire burn boss or fire use manager will apply the agency administrator's decision criteria each day during a wildfire suppression action, management of a wildland fire use event, or implementation of a planned ignition, to ensure that established criteria are being met.

1. Wildland Fires

a. Wildland Fire Implementation Plan (WFIP)

The agency administrator will approve and document each stage of the WFIP, acknowledging the decision to suppress an unwanted fire or manage a natural ignition for resource benefits. A part of the decision to manage a wildland fire for resource benefits will be determination that the particular fire is in prescription set by an approved wildland fire use plan and that adequate resources and funds are available for successful management of the wildland fire use event.

b. Wildland Fire Situation Analysis (WFSA)

Any unwanted wildland fire that is not controlled by the initial suppression response will be evaluated through a WFSA. The appropriate agency administrator will approve and document the new strategy selected through the analysis. The agency administrator will document daily validation of the strategy identified by the selected alternative, including adherence to cost projections made in the analysis and provided to the incident commander.

Flathead National Forest

Forest Service policy establishes levels for line approval of WFSA decisions based on the incident complexity, projected fire suppression cost set by the preferred alternative, and on individual experience and training.

Criteria for WFSA certification and current line officer qualifications to certify the WFSA are located in Appendix 5.D.1

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c. Incident Business Advisor

The agency administrator will assign an incident business advisor (IBA) when a large fire suppression event requires management by a Type 1 or 2 incident management team, or anytime the projected cost of fire suppression is higher than the average for the unit.

The IBA will provide ongoing advice and documentation to the agency administrator regarding incident business issues and opportunities that can be or have been implemented to reduce the costs of fire suppression, as well as give input regarding the performance of the incident management team's compliance with fiscal direction and administration of fiscal issues and efficient use of cost containment actions.

Flathead National Forest

Forest Service policy requires the assignment of an incident business advisor on any fire with a projected suppression cost greater than $ 5 MM.

The accountable line officer will activate a Type 1 IBA on fires that exceed or are predicted to exceed $ 5MM or require the activation of a Type 1 Team. For incidents requiring a Type 2 IMT, a Type 2 IBA will be assigned or an appropriate fiscal or administrative person from the regional staff or forest staff must be assigned those duties. In all cases, the IBA will work directly for the responsible line officer.

The IBA will provide a direct, concise report of all findings, especially those that display Forest Service cost savings recommendations and resulting actions, to the appropriate line officer within 5 days of containment of the fire.

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2. Prescribed Fires

The appropriate agency administrator will approve prescribed fire plans. Necessary compliance with NEPA, Section 106 of NHPA, or other regulations is required both on a programmatic and project basis. Any change to the approved prescribed fire plan, except those specifically permitted to be made by the burn boss, and actual implementation of the plan will be approved by the same agency administrator that signed the plan.

3. **Non-Fire Fuel Treatment**

The appropriate agency administrator will approve non-fire fuel treatment plans. Necessary compliance with NEPA, Section 106 of NHPA, or other regulations is required both on a programmatic and project basis.

4. **Programmatic Plans**

Programmatic planning meeting NEPA requirements will be conducted on an interdisciplinary basis directed by the appropriate agency administrator. The same agency administrator will approve programmatic plans.

E.   Interagency Coordination Necessary to Implement the Fire Management Plan

This FMP is established to formally join the fire management programs of the U.S. Forest Service, Flathead National Forest, and the National Park Service, Glacier National Park. As neighbors sharing a common boundary in one ecosystem, this coordination, is both logical, and necessary.

In conjunction with implementation of this joint plan, the Forest Service and National Park Service will meet formally on an annual basis to review the goals, objectives and procedures set forth by this plan and its appendices and additional related direction to the fire management program. The two agencies will share information, personnel, and resources to compliment each other's specific fire management program and project objectives.

F. Cooperation

1. Interagency Cooperators and Partners

Cooperation between international, federal, state and local partners is essential for a complete fire management program. Those cooperators include:

Alberta Ministry of Forests, Forest Service
British Columbia Ministry of Forests, Forest Service
Waterton Lakes National Park
Blackfeet Tribal Agency
Confederated Salish and Kootenai Tribes
Bureau of Indian Affairs
Montana Department of Natural Resources and Conservation
Montana Department of Environmental Quality
Lewis and Clark National Forest
Kootenai National Forest
Lolo National Forest
Montana Department of Natural Resources and Conservation
Montana Department of Environmental Quality
Flathead County
Glacier County
Lake County
Lincoln County
Missoula County
Powell County

a. Cooperators for Initial Attack and Extended Attack

Both the FNF and GNP use local cooperators as closest forces and next responders for initial attack and extended attack. Those cooperators include federal, state, and local government partners from within the Flathead Interagency Dispatch zone, NW Montana NRCG Zone partners, and adjacent coordination center "neighborhoods" from which center-to-center direct support can be obtained.

A list of local cooperators who may provide assistance directly to initial attack and extended attack can be found in Appendix 5.F.1.

G.   Fire Agreements
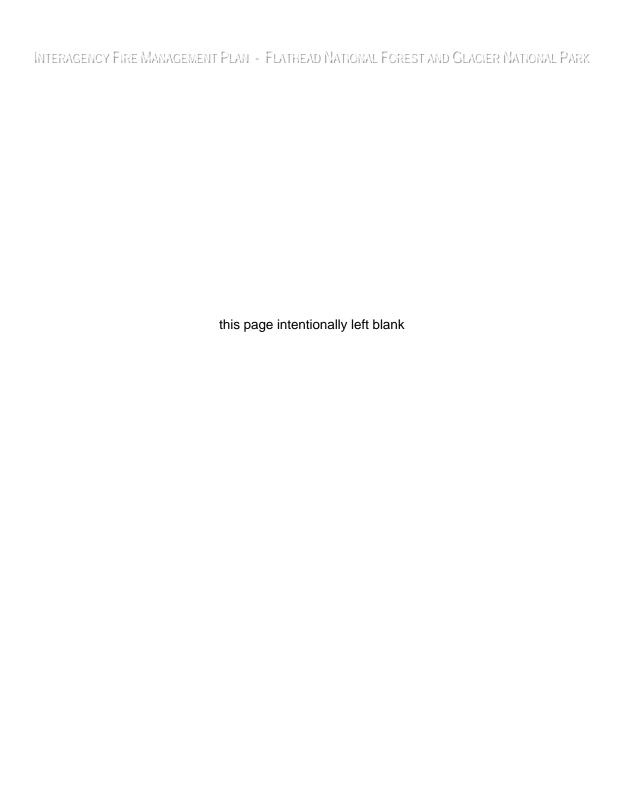
1. Montana Cooperative Fire Management Agreement

The Montana Cooperative Fire Management Agreement ("Six-Party Agreement") serves as the instrument authorizing cooperative wildland fire management activities between the State of Montana and federal land management agencies.

Under the cooperative agreement between all wildland agencies, the annual operating plan provides specific direction for implementing the cooperative agreement. This document identifies areas of initial attack responsibility as well as reporting requirements, notification procedures, and reimbursement guidelines for any wildland fires that escape initial attack on state, federal and private lands.

The agreement and annual operating plan are located in Appendix 5.G.1.

2. Other Fire Related Agreements

It is in the best interest of the forest and park to foster strong working agreements with local cooperators in wildland fire management. A list and copies of current agreements is located in Appendix 5.G.2.

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VI. MONITORING AND EVALUATION

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A.   Fire Management Program Monitoring Requirements

Monitoring requirements vary between GNP and FNF. Each agency will perform the level of monitoring required by their respective policy and direction and management plans. Fire monitoring is necessary to determine protection needs, analyze potential wildland fire use opportunities, determine if fire use events are within prescription and will accomplish the established objectives. The fire effects monitoring program supports joint agency objectives of the fire management program.

Goals of the joint agency monitoring program are as follows.

- Verify that joint plan prescribed fire program objectives are being met through documentation and analysis of fire effects.
- Increase knowledge of fire behavior and effects on ecosystems.
- Document basic information for all prescribed fires.
- Adhere to standardized data collection techniques determined by agency policy or direction.
- Use monitoring data to help develop information for the public.
- Identify areas in which research should be initiated.
- Provide adequate training opportunities to personnel to increase skills.
- Follow trends in plant communities as related to fire effects.

Flathead National Forest

The FNF Land and Resource Management Plan directs "field testing of ongoing research efforts in special wildlife habitat studies. Special considerations should be made to assist definition of key and critical habitat components and the effects of fire exclusion and prescribed fire" (p. G-2).

The FNF monitoring will follow the three levels described in FSM 1922.7, which are: implementation, effectiveness and validation. Implementation monitoring will be used to determine if prescriptions, projects and activities are implemented as designed; and are in compliance with fire program and forest plan objectives, standards and guidelines. Effectiveness monitoring will be used to determine if plans, prescriptions, projects and activities are effective in meeting management objectives, standards and guidelines. Effectiveness monitoring begins after fire program prescription, project or activity has been implemented. Validation monitoring is used to determine whether initial data, assumptions and coefficients used to develop the fire management program are correct, or if changes need to be made to the program.

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Glacier National Park

The park will use short and long-term monitoring programs to measure attainment of prescribed fire objectives. Qualitative and quantitative changes in resources will be measured and the results will be used to guide modifications for subsequent prescription treatments (see Fire Monitoring Plan, Appendix 6.A.1.).

Long-term fire monitoring will measure the influence of fire on ecosystem structure and dynamics, identify areas for future research, and validate the use of fire in perpetuating the ecosystems. The variables to be monitored will be those included in immediate post fire effects, and those determined to be primary indicators of long-term change. The park will determine primary indicators by examining fire management goals and objectives, and by consulting fire effects specialists.

Short-term monitoring will follow the procedures and protocols established in the NPS Fire Monitoring Handbook (Final Draft 2001). Short-term monitoring will also determine if burn unit objectives have been achieved, such as tree and shrub mortality and fuel reduction.

Evaluation and interpretation of fire effects monitoring is the joint responsibility of fire and resource management personnel. Interpretation of monitoring results will be used to influence management decisions.

All fires within GNP will be monitored according to the Fire Monitoring Plan.

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VII.   FIRE RESEARCH

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A. Previous and Ongoing Research

A better understanding of the role of fire in local ecosystems is contingent upon existing and ongoing fire history studies. This information has been and will continue to be instrumental in effective fire planning. Although much work has been accomplished on fire effects in common communities, many species and communities in GNP and FNF have received little attention. As deficiencies are noted and capabilities exist or can be established, research should be initiated to determine fire effects.

Glacier National Park

USGS Fire Researcher, Carl Key, developed The Normalized Burn Ratio (NBR): a Landsat TM Radiometric Measure of Burn Severity. He used Glacier NP as the prime area in the development of the methodology. Consequently, all fires that have occurred within the park dating back to 1988 have been mapped using this method. It has produced very detailed final fire perimeters and much more detailed and sophisticated burn severity maps.

The 1988 Red Bench Fire provided the impetus for a number of studies. Dutton and Cooper studied fire intensity mapping, Ryan and Wakimoto produced Vegetation Recovery in Sedge Meadow Communities Within the Red Bench Fire, Williard, Ryan, and Wakimoto wrote on the Effects of Wildfire on Survival and Regeneration of Ponderosa Pine in Glacier National Park,1993. Evaluation of Cultural Resources Affected by the Red Bench Fire, Glacier National Park, by Douglas D. Scott, 1989.

Barrett, Arno, and Key described Fire Regimes of Western Larch – Lodgepole Pine Forests in Glacier National Park, Montana, 1991.

Information on all known past fires (points and perimeters) along with weather data back until 1910 or earlier is being compiled for a complete and integrated fire history for the park. Research on fuels plots that will be used in developing custom fuel models, obtaining crown bulk height and crown bulk density, updating vegetation maps and creating better FARSITE layers is being completed.

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B.   Needed Research

Implementation of the FMP should not be contingent on completion of research concerning the fire regime and fire effects on vegetation. Instead, the fire management plan should reflect the best available science. Fire research adds to the cumulative scientific understanding and knowledge of the role of fire in the described ecosystems. Subsequently, adaptive management practices evolve as valuable studies continue in conjunction with implementation of the FMP. Fire managers need sound management-oriented scientific information with which to determine fire management objectives and strategies, natural ranges of variability for vegetation types, fire frequencies, fire effects, and historic fire intensities.

As funding allows, research will be initiated to determine fire effects where little is known on various ecosystems, habitats, threatened and endangered species and their distributional limits. Research will continue to improve custom fuel models to better predict fire behavior. Finally, research and risk analysis will continue to demonstrate how best to protect resources, identify where fire is undesirable, and determine the importance, value and potential for adverse fire impacts to those resources.

C.   Fire History of the Units

Wildland fire histories for the forest and the park are available in GIS, archived firefighter reports and their respective fire management offices.

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VIII.   PUBLIC AND EMPLOYEE SAFETY

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A. Safety Concerns Associated with the Fire Management Program

Firefighter and the public safety will take precedence over all decisions and actions associated with development and implementation of this fire management plan.

FNF and GNP work cooperatively with other federal, state, and local organizations to facilitate sharing of fire management resources, public education efforts, and information concerning wildland fire suppression and fire use programs and activities.

The units' preparedness and specific actions plans will serve as a reference to identify the level of notification needed during the fire season. The plan will indicate actions required for public safety and health through the use of information and education efforts and restrictions and closures.

The public will receive safety and prevention messages during the season primarily through contacts with agency staff and through local news media. These contacts will serve to reduce the number of human-caused wildland fires as well as provide seasonal and event-specific wildland fire information to increase visitor safety.

1. Public Safety

Wildland and prescribed fires can be hazardous for firefighters, park and forest employees and the public. Private, forest, and park developments may also be at risk from wildland fire. The safety of all people and developments in the area are the foremost concern of the agency administrator, incident commander, fire use manager and prescribed fire burn boss. Escape routes and safety zones will be clearly identified for all wildland and prescribed fire incidents and projects. Public occupancy and use of park and forest lands will be considered in all wildland fire project planning and specific public safety measures will be described therein and managed during implementation. In situations where public safety cannot be adequately mitigated otherwise, the agency administrator may temporarily close threatened federal land to public use and order evacuation (evacuation applies NPS lands only).

Public access to fire areas should be managed to minimize the risk of harm and interference with the safe and efficient operations of fire management personnel. Total closures of fire areas may be necessary on a case-by-case basis to ensure public safety.

In the case of wildland fire with potential for rapid spread and danger to park and forest visitors, the public will be informed and cautioned accordingly at potential access points. Park and forest visitors, residents and neighbors will be informed of any potentially threatening fire activity and necessary safety measures.

During extreme situations that constitute an immediate threat, all efforts will be made to inform and evacuate all threatened parties as quickly as possible.

On national forest lands, public safety is a primary responsibility of local government, implemented through the county sheriff and office of emergency services. Whenever public safety is compromised by wildland fire activity, and especially when evacuation of residents or forest visitors is warranted, close and timely coordination with local government is essential.

2. Firefighter Safety

The primary goal of all fire management programs and activities is to provide for the safety of our employees and cooperators engaged in implementing fire management activities. Safety is the responsibility of those assigned to manage wildland and prescribed fire and must be practiced at all operational levels. Firefighter safety will always take precedence over risk of property and resource loss.

B.   Mitigation of Safety Hazards and Risks

Mitigation of safety hazards and risks begins with agency administrators and fire program managers having a complete understanding of policy and procedures guiding the fire management program. All fire management programmatic and project plans will include a thorough analysis and discussion of safety hazards, risks and mitigation measures. The appropriate agency administrator will not approve fire management plans or authorize their implementation until they can be assured that safety mitigation measures are in place.

In the fire environment, mitigation of safety hazards and risks includes compliance with the Ten Standard Fire Orders, addressing the 18 Watch-Out Situations and adherence to the Lookouts, Communications, Escape Routes, and Safety Zones system. Incident commanders will place safety first in all decisions and actions that commit personnel to the fire environment. The risk management process identified in the NWCG Incident Response Pocket Guide will be used on every initial attack and extended attack to ensure that critical factors and risks associated with fireline operations are considered.

Compliance with all safe practice policies and procedures will be specific performance evaluation criteria for all personnel assigned to fire management activities on the Flathead NF and Glacier NP.

Safe practices and hazard and risk identification and mitigation will be a paramount element of all after-action critiques of fire management activities conducted on the forest and park.

Flathead National Forest

All fire management planning and operations conducted on the FNF will comply with the forest's Thirty Mile Fire Hazard Abatement Plan. (see Appendix 8.B.1).

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IX.   PUBLIC INVOLVEMENT, INFORMATION, AND EDUCATION

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A.   Local Public Involvement

Whenever possible, local businesses, resources, and assets will be utilized in support of fire management actions in the park and forest. The intent is to involve the community in agency fire management activities in a positive manner economically, politically and socially.

Public information and education is the cornerstone of a successful interagency fire management program. Informed and supportive agency staff, the local and visiting public, and partner organizations, will contribute greatly to the success of the fire program and the resources that it is designed to benefit. Timely and accurate information will be provided to the media and public describing wildland fire management programs and the status of individual fires and management actions.

Emergency restrictions limiting or prohibiting high-risk activities such as smoking, open fires, and motor vehicle travel may be imposed as burning conditions worsen; and will be consistent with those restrictions implemented by surrounding fire cooperators. In extremely critical situations, some areas may be closed completely to public use for fire prevention purposes. Such closures will usually coincide with a declaration of a wildland fire danger emergency by the Governor of the State of Montana. The agency administrator for each agency will prepare a written order identifying the specific restrictions and closures and affected areas when conditions warrant. Coordinated interagency news releases will be made informing the public of all restrictions and closures.

Joint strategies for the public information and education programs will be developed in coordination with each agency's public affairs and fire management offices. Outcomes will include establishing a network of contacts, and developing a proactive process that disseminates current and accurate fire information to the agencies' staff, local community, visiting public, and media.

B. **Public Information Planning in Response to Increased Fire Danger and Activity**

The forest and park manage programs to provide fire danger and activity information as part of their routine public information duties. As fire danger and activity increases, the Northwest Montana Zone of the Northern Rockies Coordination Group will develop specific public information releases focused on fire safety, prevention and, as warranted, restrictions and closures.

Announcements regarding escalating fire danger and decisions to enter into restrictions and closures will be coordinated among all the partner agencies of the NW Zone.

1. Media Coordination

The forest and park public affairs offices will coordinate media releases originating from the agencies during periods of normal unit activity. Media relations in the Flathead and Glacier area are informal and cordial.

During wildland fire events, incident management teams and fire use management teams will provide information officers and staffs to directly coordinate and address media interests. The forest and park will delegate authority to management teams to include media access and close coordination with the host unit and agency. Effective public information management, including timeliness and accuracy, is crucial in this area and will be a point of specific performance evaluation for management teams.

X.   PROTECTION OF SENSITIVE RESOURCES

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A.   General Management Considerations

In-depth information regarding the locations and types of significant cultural resources located on the park and forest will be kept by each agency. GNP site information is available from the Division of Science and Resources Management. FNF site information can be found in the land management plan and is available from the supervisor's office and ranger district staffs.

Glacier National Park

Fire management will be consistent with Glacier National Park's General Management Plan objective "to preserve the park's cultural resources unimpaired for the enjoyment of present and future generations." GNPs Resource Management Plan commits the park to inventory and evaluate cultural resources as part of park management activities. In order to meet these responsibilities and comply with other federal preservation laws, cultural resources must be identified within any project area of potential effect.

Mitigation for Cultural Resources. The fire plan commits Glacier National Park to comply with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations 36 CFR Part 800 for each proposed fire project.

Glacier National Park is in the process of developing a Programmatic Agreement in consultation with the Advisory Council on Historic Preservation, the Montana State Historic Preservation Office (SHPO), Tribal representatives, and members of the public as appropriate. The Programmatic Agreement will establish wildland fire, prescribed fire, and hazard fuels reduction protocols for the purpose of compliance with Section 106.

During planning for fuel reduction projects, including prescribed fires and manual treatments, the cultural resource specialist would be consulted. Other mitigation actions described below would be included as part of Section 106.

Wildland fires that pose a potential threat to identified cultural resources may require a qualified cultural resource specialist to provide specific on-site mitigation strategies. The following mitigating measures would be implemented as conditions warrant.

- Use protection measures in cultural sites or areas identified by the cultural resource specialist and/or local tribal officials; may include constructing fireline around sites, treating sites with approved retardant, removal of fuels around sites, etc.
- Locate, identify, and isolate sites that are vulnerable to fire effects or human activities.

- Conduct a cultural resource survey when recommended by a cultural resource specialist before prescribed fire and/or non-fire fuels management projects.
- Remove fuel concentrations in close proximity to known cultural sites.
- Educate fire crews about the need to protect cultural resources.
- Minimize ground disturbance wherever possible.
- Conduct post-fire cultural resource surveys to identify, evaluate, and document impacts.
- Perform other site-specific measures to protect cultural sites and features as indicated.
- Consult with cultural resource specialists on proposed locations of camps, staging areas, helispots, or other management actions that may disturb cultural resources.

Tribes in the area are cooperating with the park in an ongoing information exchange that provides the basis for protection protocols. As a matter of routine, tribal officials would be contacted well in advance of planned fire management project work to determine if traditional cultural sites are included in the planning area.

Fire intensity, duration of heat, heat penetration into the soil, and the use of mechanized equipment for suppression are the primary sources of damage to archeological resources (Anderson 1985). To prevent needless or excessive harm, archeologists or historians will be consulted during the planning stages of prescribed fires. The following guidelines will be adopted by GNP and FNF for any wildland fire and Fire Management Officers will be responsible for ensuring that they are carried out:

- Resource based maps showing cultural resource locations will be given to resource advisors or technical specialists - archeologists and incident commanders on the firelines during project fires or when fires are near known archeological or cultural sites.
- When a fire threatens numerous cultural resources, resource advisors or technical specialists will be present to help mitigate fire suppression or rehabilitation impacts on those resources.
- Priority will be given to monitoring the use of mechanized equipment through all aspects of fire suppression and rehabilitation.
- All technical specialists assigned to a fire incident or project will be qualified for the fireline and carry standard firefighting safety equipment.
- A unique flagging color or pattern will be used to identify known archeological sites.
- A photographic record will be kept of all fire suppression activity in archeological areas and of all archeological activity.

- A resource advisor will coordinate all activities of the technical specialists with the incident commander.
- Wildland fire managers will make operational adjustments to mitigate resource concerns as long as such adjustments do not compromise the safety of the public or firefighters.

1. Cultural Resources

The protection of cultural resources is an objective and goal of fire management in the Flathead National Forest and Glacier National Park. Damage to cultural resources during fire management activities can occur both from the fire itself and from actions of those fighting or managing the fire.

Three major factors determine the extent of fire damage to archeological sites: fire intensity, duration of heat and heat penetration into the soil (Traylor et al., 1979).

The most important variable influencing fire intensity is fuel load. Decades of complete fire suppression have resulted in high fuel loads in some areas. The potential for an unplanned fire of high intensity poses a distinct threat to cultural resources. The use of low intensity prescribed fires to reduce these fuel loads is discussed in Chapter V, Part B of this plan.

Surface artifacts will be scorched and smoke-blackened by fire. The structure of larger stone artifacts is generally not affected (see Bloom et. al., 1991).

Overall, damage to organic cultural material begins at approximately 300 degrees Celsius (Lissoway and Propper, no date). Inorganic material, which is less vulnerable, can be exposed to temperatures of 400-500 degrees for up to 1/2 hour without undergoing severe alteration.

In contrast to surface artifacts, objects buried 5 centimeters or more below ground are generally unaffected by fire. An exception would be objects buried in proximity to burning roots, which can reach temperatures as high as 1500 degrees C (Traylor et al., 1979).

Several indirect effects of fire can also impact archeological sites. Loss of vegetative cover can lead to severe erosion and the uprooting of trees killed by the fire can fracture or displace artifacts (Lissoway and Propper, no date). Exposure of artifacts also presents a risk of looting.

Significantly, the greatest damage inflicted on cultural sites is <u>not</u> the result of fire itself but of fire suppression activities. Fire retardants may have a corrosive effect on cultural materials, although this requires further study (Lissoway and Propper, no date). Dozer activity, hand line construction,

helispot clearing, mop-up activity and even rehabilitation can cut deep into the soil, damaging and displacing artifacts. In addition, fire crews that have not been briefed on the importance of archeological sites may collect artifacts.

The impact of fire suppression and rehabilitation activities can be significantly reduced with proper planning and education. Minimum impact suppression and rehabilitation activities are discussed in Chapter IV, Part B.6 and efforts to identify cultural resources and goals to mitigate damage to them are discussed in Chapter I, Part A and Chapter III Part B of this plan.

Flathead National Forest

Agency administrators and incident commanders have the authority to supercede natural and cultural resource considerations when a potentially life-threatening situation exists. (FSM 5130.43 and 5130.45)

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Glacier National Park

The cultural resources most susceptible to fire are the park's historic buildings. A majority of these buildings are located within developed areas. There are, however, historic buildings and historic archeological sites in the backcountry that contain wood remains. These remote sites include ranger patrol cabins, fire lookouts and homestead and mining cabins.

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2. Sensitive Natural Resources

Glacier National Park

An inventory of plant and animal species found in the park is being compiled. When complete, this plan and an environmental assessment will be submitted to the U.S. Fish and Wildlife Service, and any necessary formal or informal consultation will be initiated. If a sensitive species vice exists within a burn unit and may be negatively impacted by fire, then management actions will be taken to prevent or lessen the damage to the species.

Water Rights Compact

As required by the National Park Service – State of Montana Water Rights Compact, the NPS will submit an annual report to the State detailing water

rights activity. Specifically, this report is to include:

1. Actions, including fire management activities, affecting the use of a consumptive use right as described in the compact.
2. The initiation of new uses that were completed during the preceding year.
3. Any data and documents generated by the NPS during the preceding year on measurement of in-stream flow of a Category 3 or 4 stream.

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3. Infrastructure, Developments, In-holdings and Other Improvements

Accepted interagency urban interface wildland fire risk mitigation techniques should be applied to prevent or reduce negative impacts to improvements, developments, structures and other identified values at risk from wildland fire. These techniques may include, but are not limited to, hazard fuel removal, improvement of fire engine accessibility, and removal or replacement of burnable materials on or near structures.

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XI.   FIRE REVIEWS AND ANNUAL PLAN REVIEW

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A.   After-Action Reviews

The after-action review (AAR) provides fire managers, agency administrators, and all personnel involved in decision-making and actions associated with a fire management event with an opportunity to critique programmatic and individual performance for subsequent improvement of fire management operations. The AAR will include the key personnel involved with the incident, event, or project to evaluate the initial response, "hotline" (on-going fire incident) actions, planning, organization, and strategy and tactics used, safety issues and mitigation actions, and the need for new and replacement equipment. The incident commander, prescribed fire burn boss, fire use manager, fire management officer, or official who has designated fire program responsibilities, will conduct the review. The purpose of the review is to recognize and document actions that were successful, and to identify and rectify actions that were ineffective or unsafe.

Flathead National Forest

The FNF will follow direction in FSM 5194 concerning after-action reviews. The purpose of the review is to:

- Evaluate results of suppression actions and compare them to anticipated results.
- Identify changes or corrections in policy, management, procedures, equipment or performance.
- Improve employee effectiveness through participation in evaluation and implementation of recommendations. FSM 5194 gives the standards for informal and formal evaluations, and lays out standards to evaluation design.

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Glacier National Park

The fire management officer is responsible for reviewing all prescribed fires and wildland fire use events over 20 acres within one month of being declared out. The incident commander, prescribed fire manager, prescribed fire burn boss, district ranger, cultural and natural resource specialists and other appropriate staff members with special knowledge and interest in the fire should also attend this critique. The critique will document any recommendations for changes in fire procedures, prescriptions and additional training needs to increase program effectiveness and efficiency.

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Wildland fire and prescribed fire critiques will be accomplished using the following guidelines:

- Incident personnel involved will participate in the review, facilitated by the incident commander or prescribed fire burn boss.
- All fires occurring on either GNP or FNF lands will receive a review to evaluate successes and problem areas such as: initial response, "hotline" review, control strategies employed, safety concerns, and need for equipment replacement.
- Reviews will be conducted by one of the following: incident commander, prescribed fire burn boss, fire program manager or other personnel as assigned by the agency administrator.
- Critiques of incidents should occur as soon as possible following completion of meeting incident or project objectives.
- Incident management teams will participate in a closeout session to be led by the agency administrator to identify any areas of concern or of particular success and transfer responsibility for any unfinished business prior to transition to a local organization.

A more detailed discussion to assist managers in facilitating an after-action review with an example of an AAR format can be found in Appendix 12.A.1.

B.   Incident Management Team Closeout and Performance Evaluation

The agency administrator will conduct closeout meetings with incident management teams to ensure successful transition of incident command back to the home unit, and to identify and evaluate incomplete fire business management issues.

Refer to Appendix 12.A.2 for a format for an incident management team closeout.

Each incident management team assigned to a Type 1, 2 or 3 fire suppression event or wildland fire use event will receive a performance evaluation from the responsible agency administrator.

Refer to Appendix 12.A.3 for a format for an incident management team performance evaluation.

C.   Significant Event Reviews

1. Significant Event Review

Either unit's fire management program or project actions may be the subject of a regional or national review of circumstances surrounding a wildland fire or prescribed fire event. Reviews will be indicated if one of the following occurs:

- A wildland fire or prescribed fire involved serious injury or fatality, or significant property damage.
- Fire resulted in adverse public or political reaction.
- Fire resulted in unusually high cost to accomplish the selected management action, and/or to rehabilitate land or resources affected by the fire.
- Fire crossed the agency boundary into another jurisdiction without the approval of landowner or agency involved.

2. Entrapment or Fire Shelter Deployment Review

All entrapments and fire shelter deployments will be reported and investigated according to agency policy. Agency administrators should refer to the NWCG Agency Administrator's Guide to Critical Incident Management (April 1996) for assistance in accomplishing critical responsibilities associated with the occurrence of serious accidents and fatalities

Flathead National Forest

Refer to FSM 5130.3.8 Notification of Wildland Fire Entrapment.

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Glacier National Park

Refer to Reference Manual 18 Chapter 13, Exhibit 4 & 5 for review directions and a written outline format

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D.   Fire Management Plan Review

This joint fire management plan is subject to review and revision annually. Revisions will reflect changes necessary to the continued success of the fire management program.

The forest supervisor and park superintendent will indicate their knowledge and approval of the fire management plan, including any changes to the original text, with their signatures annually, with appendixes updated and incorporated by June 1.

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XII.   CONSULTATION AND COORDINATION

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A. Fire Management Plan Writing and Editing

1. Joint Fire Management Plan Development

The following individuals participated in the annual editing of this joint fire management plan.

- Allen Chrisman, Fire, Aviation & Air Program Leader, Flathead NF
- Steve Wirt, Wildland Fire Use Specialist, Flathead NF
- Mitchell Burgard, Assistant Fire Management Officer, Glacier NP
- Dennis Divoky, Fire Effects Specialist, Glacier NP
- Mike Frislie, Operations Specialist, Glacier NP
- Biddy Simet, Fire Program Assistant, Glacier NP
- Fred Vanhorn, Fire Management Officer, Glacier NP

2. Forest, Park, and Interagency Contacts and Consultants

The following individuals, agencies, and cooperators were consulted in the initial development and/or annual review of this joint fire management plan.

a. Flathead National Forest

- Carol Bienhold, Flathead Interagency Dispatch Center Manager
- Steve Brady, District Ranger, Swan Lake RD
- Rob Carlin, Forest Planning Staff Officer
- Gary Dahlgren, Forest Vegetation Management Program Leader
- Michael Dardis, Zone Fire Management Officer
- Dick Davies, District Fire Management Officer
- Jim Reuter, District Fire Management Officer
- Linh Davis, Forest Botanist
- Jimmy DeHerrera, District Ranger, Hungry Horse – Glacier View RD's
- Lisa Krueger, District Ranger, Tally Lake RD
- Tim Light, Forest Archeologist
- Debbie Mucklow, District Ranger, Spotted Bear RD
- Steve Phillips, Forest Fisheries Biologist
- Steve Anderson, Forest Wildlife Biologist

b. Glacier National Park

- Tara Carolin, Ecologist
- Steve Frye, Chief Ranger
- Steve Gniadek, Wildlife Biologist
- Kyle Johnson, Wilderness Coordinator

- Mike McClellan, Bio-Science Technician - Monitor Crew Supervisor
- Richard Menicke, Geographer
- Bill Michels, Natural Resource Specialist
- Lon Johnson, Cultural Resource Specialist
- Jack Potter, Assistant Chief of Resource Management
- Mary Riddle, Environmental Protection and Compliance Specialist
- John Waller, Wildlife Biologist

c. **Other Agencies and Cooperators**

- Lee Clark, Fire Management Officer, Lewis and Clark NF
- Roy H. Doore, Bureau of Indian Affairs, Blackfeet Agency
- Andrea Gilham, Fire Management Officer, Bureau of Indian Affairs, Blackfeet Agency
- Murray Houlind, Forest Protection Technician, British Columbia Forest Service
- Carl Key, GIS Specialist, USGS
- Rich Lasko, Asst Director Fire Use & Planning, USFS Northern Region
- Alan Marble, Director, Flathead County Office of Emergency Services
- Brad McBratney, District FMO, Lewis and Clark NF
- Sarah Robertson, USFS/NPS Interagency Fire Program Planner
- Tyson Running-Wolf, AFMO, Bureau of Indian Affairs, Blackfeet Agency
- Randall Schwanke, Park Warden (Fire/Vegetation Coordinator), Parks Canada
- Montana - Idaho Airshed Group
- Montana Department of Natural Resources & Conservation, Northwest Lands Office

XIII. Appendices

Appendix 3.D.1   FNF Fire Management Units and Descriptions

Appendix 3.D.2   GNP Fire Management Units and Descriptions

Appendix 4.B.1   FNF Fire Management Direction and Strategies from the Forest LMP

Appendix 4.B.2   GNP Fire Management Direction and Strategies from the General Management and Resource Management Plans

Appendix 4.B.3   FNF Fire Prevention Plan

Appendix 4.B.4   GNP Fire Prevention Plan

Appendix 4.B.5   Northwest Montana Restrictions and Closure Plan

Appendix 4.B.6   FNF Fire & Aviation Management Training and Qualification Program Administration Guide

Appendix 4.B.7   Fire Weather Stations and Reference Indices

Appendix 4.B.8   FNF, GNP, and NWS Fire Danger Pocket Cards

Appendix 4.B.9   FNF Fire Preparedness Plan

Appendix 4.B.10   GNP Preparedness Plan

Appendix 4.B.11   FNF Draw-down Plan

Appendix 4.B.12   GNP Draw-down Plan

Appendix 4.B.13   FNF Procedures for Employing Motorized or Mechanized Wildland Fire Management Tactics in Wilderness Areas

Appendix 4.B.14   NW Montana Type 3 Incident Organization Plan

Appendix 4.B.15   R1 Incident Organizer

Appendix 4.B.16   Delegation of Authority, T 2 and 1 Incident Commanders and Agency Administrator Briefing (example)

Appendix 4.B.17   Delegation of Authority, T5, 4 and 3 Incident Commanders

Appendix 11.A.3   Incident Management Team Performance Evaluation