Cumberland Island National Seashore
2025 Fire Management Plan

Prepared by: LUCAS HUNKLER Digitally signed by LUCAS HUNKLER Date: 2025.09.23 15:36:14 -04'00' Date: _____

Lucas Hunkler, Fire Management Officer, NPS Atlantic Fire Management Zone

Reviewed/Recommended by: TRAVIS NEPPL Digitally signed by TRAVIS NEPPL Date: 2025.09.23 13:28:07 -05'00' Date: _____

Travis Neppl, Deputy Regional Fire Management Officer, NPS Interior Region 2

Approved by: MELISSA TRENCHIK Digitally signed by MELISSA TRENCHIK Date: 2025.11.05 13:07:31 -05'00' Date: _____

Melissa Trenchik, Superintendent, Cumberland Island National Seashore

Table of Contents

List of Figures:

List of Tables:

1.0 INTRODUCTION, LAND MANAGEMENT PLANNING, AND COMMUNICATION

Cumberland Island National Seashore was created by Congress in 1972 (Public Law (PL) 92-536, codified at 16 U.S.C. 459i et seq. (the Act) "to provide for public outdoor recreation use and enjoyment of certain significant shoreline lands and waters of the United States and to preserve related scenic, scientific, and historical values". Section 6 of the Act states that "Except for certain portions of the seashore deemed to be especially adaptable for recreational uses… the seashore shall be permanently preserved in its primitive state". On September 8, 1982, much of the northern half of Cumberland Island was designated as wilderness or potential wilderness to be managed as part of the National Wilderness Preservation System (PL 97-250, as amended by PL 108-447, 16 U.S.C. 113).

Cumberland Island is the southernmost barrier island along the Georgia coastline in Camden County, and is bounded by the Cumberland River on the west, St. Andrew's Sound on the north, the Atlantic Ocean on the east, and Cumberland Sound on the south (Figure 1). The island is 17.5 miles long, ranging from just over a half mile to three miles wide, and totals 36,415 acres of which 16,850 are marsh, mud flats, and tidal creeks. There are no roads or bridges that connect the island with the mainland; access is solely by boat or, on a more uncommon basis, aircraft. In addition to Cumberland Island, Little Cumberland Island is included within the legislated boundaries of the Seashore. However, all land on Little Cumberland is privately owned, fee-simple property and is not managed by the National Park Service (NPS). The NPS also has facilities on the mainland in Saint Marys, Georgia, including the visitor center, ferry landing, headquarters building, and museum/curatorial building. This plan outlines the wildland fire management program at Cumberland Island National Seashore (hereinafter referred to as "the seashore," or by NPS alpha code CUIS). The fire management program, guided by federal policy and the resource management objectives, will serve to protect life, property, and natural and cultural resources.

Cumberland Island supports multiple diverse ecosystems of which all are fire adapted. Island vegetation includes marshlands, live oak forests, pine stands, palmetto, swamps, and coastal scrub-shrub species. Visitors can see white-tailed deer, raccoon, river otter, bobcat, alligators, manatees, and an impressive variety of birds. The island provides excellent nesting habitat for loggerhead sea turtles. The Seashore's undeveloped natural areas attract visitors for activities such as swimming, camping, backpacking, fishing, hiking, bird and wildlife watching and beachcombing.

For more than 4,000 years human visitors and residents have interacted with and relied on the natural resources of Cumberland Island. Numerous shell middens throughout the island provide the most conspicuous clues to a complex American Indian population that once prospered here. Buildings, landscape features, structural ruins, artifact and archival collections, and archeological sites depict a historical record of the island through colonial times, the plantation era, the estate period, and to the present day. These pieces of the past provide a compelling backdrop to the island that draws visitors into the stories of this remote place.

The Seashore is a complex mix of management areas and ownership that includes Wilderness, National Register historic districts, private property, reserved estate property, and land owned

by other federal entities or the State of Georgia. Most of the Seashore's upland acreage is owned and administered by the NPS.

The Cumberland Island Wilderness is on the northern half of the island and encompasses approximately 9,886 acres that are legislatively designated as wilderness and an additional 10,500 acres authorized as potential wilderness. In total, approximately 20,386 acres at the Seashore are managed to protect wilderness character, which represents approximately 56% of the upland and marsh within the Seashore's boundary. The Cumberland Island wilderness legislation mandates that the Seashore's designated wilderness will be permanently preserved in its wilderness condition. The wilderness area includes most of the Seashore north of Stafford Plantation, except for the central and eastern portions of the High Point- Half Moon Bluff Historic District and the uplands on Little Cumberland Island (figure 1). In 2004, legislation excluded three 25-foot-wide road corridors from the wilderness along the Main Road, Plum Orchard Spur, and North Cut Road. Congress directed that these corridors be maintained for continued vehicle use.

Figure 1: Cumberland Island National Seashore Map

The Seashore includes seven properties listed on the National Register of Historic Places (NRHP): Dungeness Historic District, Stafford Plantation Historic District, Plum Orchard Historic District, Table Point Archeological District, Rayfield Archeological District, High Point – Half Moon Bluff Historic District, and Main Road. Greyfield, a privately-owned tract, is also on the NRHP. The historic districts are dispersed throughout the island and include features such as archeological sites, cultural landscapes, historic structures, and structural ruins. All Historic Districts are within the wildland-urban interface and more details are provided in Section 3.0.

Land ownership on Cumberland Island includes fee-simple, private properties held by nine different entities with individual tracts ranging from 10 acres to 210 acres. These parcels are generally concentrated in the area between Sea Camp and Greyfield as well as the Stafford area. One of the parcels is a 210-acre tract owned by The Nature Conservancy. In addition to the Cumberland Island tracts, all the property on Little Cumberland Island is privately held and is not managed by the NPS. All the activities and operations on the smaller island are under the direction of the Little Cumberland Island Homeowners Association. The Georgia Forestry Commission and Camden County Fire and Rescue share fire protection responsibilities on Little Cumberland and CUIS serves as a cooperating agency as needed in the event of fire. The private tracts on both islands contain residences and other structures and are within the wildland-urban interface.

Cumberland Island also contains areas that constitute what are often referred to as reserved estates or reserved properties. The park's enabling legislation contained a provision that in the process of NPS acquisition of improved properties, as a condition of the acquisition, the previous owner(s) were permitted to retain a right of use and occupancy for residential purposes. Cumberland Island has ten retained rights agreements remaining in place and they are all life estates. These properties are scattered throughout the island and range in size from one-third of an acre to 18 acres. All the tracts include residences and other structures and are within the wildland-urban interface.

Other property interests on the island include the State of Georgia, which owns extensive marsh land on the west side of the island, all saltwater creeks, and all land below the mean high-tide line (which would include the beach). In addition, the U.S. Navy owns Drum Point Island which is west of the Sea Camp area. And the U.S. Army Corps of Engineers owns the marsh area west of Beach Creek and includes Raccoon Keys.

The mission of the NPS Wildland Fire Program is to manage wildland fire to protect the public, park communities, and infrastructure, conserve natural and cultural resources, and maintain and restore natural ecosystem processes (WF: Plans and Policy - Fire (U.S. National Park Service). Each park unit with burnable vegetation must have an approved Fire Management Plan that will address the need for adequate funding and staffing to support the fire management program. (Directors Order #18, Wildland Fire Management, NPS 2008). To align with the DOI policy, the NPS developed fire management planning guidance described in NPS Reference Manual (RM) - 18, Fire Management Plans, Chapter 4 (2023), that considers fire program complexity and efficient and effective planning direction.

The Fire Management Plan (FMP) is a strategic plan that defines a program of work to use the full range of responses to a wildfire including monitoring, confine, contain, and full control strategies. In addition, the NPS will utilize prescribed fire and non-fire fuel treatments to meet goals and objectives of both reducing hazardous fuels, restoring fire back to its historical range, and providing fire adapted ecosystems the ecological benefits of fire.

These actions are based on direction contained in existing park unit planning documents. This FMP provides for firefighter and public safety and includes strategies for managing wildland fire. The FMP addresses values to be protected and is consistent with resource management objectives and environmental laws and regulations such as the National Environmental Policy Act (NEPA), the National and State Historic Preservation Acts, the Clean Air Act, etc.

Through a delegation from the Superintendent, the Atlantic Zone Fire Management Officer (Zone FMO) based at CUIS determines program requirements to implement land use decisions through the FMP to meet land management objectives. The Zone FMO is responsible for developing, maintaining, and annually evaluating the FMP to ensure accuracy and validity by completing an annual review (Interagency Standards for Fire and Fire Aviation Operations (Red Book), Chapter 3, NPS Program Organization and Responsibilities).

1.1 Program Organization

At CUIS, wildland fire management is the responsibility of the Superintendent. He/she is the decision maker/approver on wildland fire issues such as approving the FMP, authorizing wildfire response strategies, approval of prescribed fire and non-fire treatment plans, and interactions with the public and other agencies. Agency Administrator Roles and Responsibilities are located in the Red Book, Chapter 3.

CUIS is part of the NPS Atlantic Zone for wildland fire management. Each Fire Management Zone consists of NPS units that have burnable vegetation or that can be affected by wildland fire and are staffed with a Fire Management Officer who meets Interagency Fire Program Management qualifications. In the case of the Atlantic Zone, the Zone FMO is based out of CUIS and falls under CUIS supervision and management discretion. The Zone FMO provides leadership to his/her immediate staff and ensures that a sound fire management program, within the capacity of his staff, is in place at all parks within the Zone.

Figure 2: Southeast Region Fire Management Zone Contacts Map

The Atlantic Zone includes:

- Andersonville National Historic Site (ANDE)
- Canaveral National Seashore (CANA)
- Castillo de San Marcos National Monument (CASA)
- Cumberland Island National Seashore (CUIS)
- Desoto National Memorial (DESO)
- Fort Caroline National Memorial (FOCA)
- Fort Frederica National Monument (FOFR)
- Fort Pulaski National Monument (FOPU)
- Fort Matanzas National Monument (FOMA)
- Jimmy Carter National Historical Park (JICA)
- Ocmulgee Mounds National Historical Park (OCMU)
- Timucuan Ecologic and Historic Preserve (TIMU)

The Superintendent is responsible for the safe and efficient implementation of wildland fire management activities, including cooperative activities with other agencies or landowners in accordance with delegations of authorities and written agreements. The Superintendent oversees the overall program, with most activities delegated to the Zone FMO.

The Superintendent will adhere to the Agency Administrator Management Performance Requirements for Fire Operations in the (Interagency Standards for Fire and Fire Aviation Interagency Standards for Fire and Fire Aviation Operations (Red Book), Chapter 3, NPS Program Organization and Responsibilities) including, but not limited to:

- Taking necessary and prudent actions to ensure firefighter and public safety.
- Ensuring an approved burn plan is followed for each prescribed fire project; technical review, Prescribed Fire Go/No-Go Checklist (PMS 484-1, Element 2B), and Agency Administrator Ignition Authorization (PMS 484-1, Element 2A) are completed; follow-up monitoring and documentation to ensure management objectives are met.
- For all unplanned, human-caused fires where liability can be determined, ensure actions are initiated to recover cost of suppression activities, land rehabilitation, and damages to the resource and improvements.
- Ensuring that resource advisors are identified, trained, available, and appropriately assigned to wildland fire incidents. Refer to Resource Advisor Guide for Wildland Fire (PMS 313), Aug. 2017.
- Providing a written delegation of authority on an annual basis to individual(s) responsible for wildland fire management activities to ensure an adequate level of operational authority.
- Maintain the Agency Administrator qualification in IQCS.

The Zone FMO receives an annual Delegation of Authority (DOA) from the Superintendent to manage and coordinate fire activities at the park (Appendix A). The Zone FMO supervises wildland fire staff personnel who each have responsibilities at CUIS. The full scope off FMO responsibilities can be found in the Red Book, Chapter 3. It is important to note that the Zone FMO has oversight for numerous parks, thus time dedicated to any one park is limited. The FMO duties include, but are not limited to:

- Manages the overall wildland fire management program for the park.
- Maintains qualifications and training records in IQCS.
- Recommends fire training needs and priorities and provides and coordinates wildland fire training for the park and cooperating parks.
- Ensures fire preparedness equipment and fire prevention plans are in place and in working order.
- Ensures the park has the qualifications and skills to safely implement wildland fire programs as identified in the fire management plan.
- Establishes liaison with cooperating agencies and coordinates and maintains cooperative agreements.

- Determines daily fire danger ratings and recommends fire restrictions.
- Monitors daily fire danger through FEMS and recommends daily fire danger ratings.
- Coordinates with the NPS regional fire staff on fire management actions, issues, and budgeting.
- Performs administrative duties, i.e., approving work hours, completing fire reports for command period, and maintaining property accountability.
- Coordinates fuels project planning in consultation with other park divisions where necessary for resource protection and continuity of operations.
- Monitors actions taken on wildland fires and ensures proper and adequate documentation.
- Approves hand-written Individual Fire Report, ensuring proper preparation and entry into the Interagency Fire Occurrence Modules (InFORM) and Wildland Fire Decision Support System (WFDSS NextGen).
- Serves as the point of contact and ensures proper maintenance and functioning of the Stafford RAWS.
- Formulates accounts for preparedness, hazard fuels operations, and emergency fire with assistance from NPS regional fire staff.
- Coordinates with Georgia Interagency Communications Center (GICC) and Southern Area Coordination Center (SACC) to ensure available red-carded personnel are correctly entered into the system of record.
- Ensures a Fire Duty Officer is identified.
- Enters fuel treatment accomplishments into the bureau system of record (currently IFPRS)

The Chief of Visitor and Resource Protection duties include, but are not limited to:

- Provides management expertise, technical advice, and review of plans.
- Works with the FMO and Chief of Resource Management to ensure ecological effects of fire and suppression activities are considered and potential negative impacts are mitigated.
- Works with NPS cultural resource specialists to ensure effects of fire and suppression activities are considered and potential negative impacts are mitigated.
- Reviews the FMP, compliance documents, prescribed burn plans, and non-fire fuel treatment plans.

Information regarding roles and responsibilities of the Fire Management Staff and Park Superintendent can be found in the current year Interagency Standards for Fire and Fire Aviation Operations ("Red Book").

1.2 Wildland Fire Management Actions

Initial action on human-caused wildfire will be to suppress the fire at the lowest cost with the fewest negative consequences with respect to firefighter and public safety. If the initial suppression action is not successful and an updated decision is made to manage the fire, that decision will be documented as part of the official record. The updated strategy will be commensurate with firefighter and public safety, risk management, and values to be protected, with consideration for cost efficiency.

Lightning-caused wildfires that occur within the Natural Zone Fire Management Unit 1 (FMU-1) may be managed for resource management objectives. Each ignition must be evaluated using a Relative Risk Assessment to determine whether the fire will be managed to achieve resource objectives commensurate with human safety, property, and protection objectives. This FMU includes most of the island, covering 27,160 acres, encompassing marshland, dune, hammock, and uplands. FMU-1 includes all the designated wilderness and most of the potential wilderness. It also contains areas of real property and significant cultural resources.

Federal wildland fire policy states that a wildland fire may be concurrently managed for one or more objectives, and objectives can change as the fire spreads across the landscape. Objectives are affected by changes in fuels, weather, topography; varying social understanding and tolerance; and involvement of other governmental jurisdictions having different missions and objectives. Management response to a wildfire at CUIS is based on objectives established in this FMP.

The park may use all fire management actions/strategies allowable by NPS policy for managing wildland fire in the park (NPS Reference Manual 18) with an emphasis on utilizing Minimum Impact Strategy and Tactics (MIST) procedures to reduce fire management operational impacts including those specified in Section 3.1.1.4. Given the significance of natural and cultural resources within CUIS, this plan describes MIST that will be used by fire personnel in the choice of procedures, tools, and equipment in fire suppression and post-fire rehabilitation to maintain a high standard of caring for the land and resources. Cooperating fire responders will be oriented and trained to use MIST guidelines. Direction on fire suppression is expanded upon in Section 3.1 Management of Wildfires and Appendix D-4: Initial Response Plan.

Fuel treatments will be used to reduce hazardous fuels near values at risk, as well as to maintain and restore the process of wildland fire to ecosystems. Fuels reduction methods include prescribed fire and non-fire fuel treatments. Some areas would be periodically retreated, as needed, to meet hazard reduction objectives. Fuels treatments and managed wildfire are intended to reduce wildland fire risk in the long term and allow more favorable conditions for control of future wildfires as well as strategic opportunities for managing natural ignitions, providing for resource benefits.

The park will use non-fire fuels treatment options for the reduction of hazard fuels, restoration of fire adapted ecological communities, maintaining defensible space and fuel breaks to protect park infrastructure, minimizing the risk of fire spreading to private property, and for managing cultural landscapes. These non-fire fuel treatments will continue to protect fire sensitive sites, selected by park staff, by reducing hazardous fuels in and adjacent to those

designated sites. A detailed description of fuels management activities is described in Section 3.2.

1.3 Environmental Compliance

Table 1: NEPA Documents Applicable to the FMP

NEPA Document Name	Document Date Signed
Environmental Assessment (EA) – for the (Wildland) Fire Management Plan, Cumberland Island National Seashore Finding of No Significant Impacts (FONSI)	January 8, 2015
2025 Fire Management Plan: CE 3.3B1 *Changes or amendments to an approved plan, when such changes would cause no or only minimal environmental impact.*	132013

In accordance with the requirements of National Environmental Policy Act, the Environmental Assessment (EA) for the Cumberland Island National Seashore Fire Management Plan was prepared and released in October, 2013. Requirements of Section 7 of the Endangered Species Act (ESA) and the Wilderness Act have also been addressed. During the planning process and EA development public input was sought through the external scoping process, which extended from October 16 to November 30, 2012 and included a public meeting in St. Marys and another on Cumberland Island. The EA was open for public review and comment from October 25 through November 29, 2013. A Finding of No Significant Impact for the EA was signed by NPS Southeast Regional Director. With respect to Section 7 of the ESA, a letter from the U.S. Fish and Wildlife Service indicated their review and concurrence with the NPS determination that the selected FMP EA alternative would have long term, minor to moderate beneficial effects for the identified federally listed species or their habitats. The letter further stated that FWS considered Section 7 requirements satisfied save any significant changes.

This 2024 Fire Management Plan moved the information from the 2015 FMP into the current NPS FMP Framework. Information has been updated in this 2025 FMP to reflect current policy and the current fire management organization, and a new FMP signature page will be completed as per national policy. However, no changes have been proposed that are outside the scope of the existing EA and FONSI. Categorical Exclusion 3.3 B1 will be used to document the 2025 Fire Management Plan.

In accordance with Section 106 of the National Historic Preservation Act, an Assessment of Actions Having an Effect on Historic Properties was prepared for the FMP. The assessment was submitted for consultation to the Georgia State Historic Preservation Office (SHPO), with an NPS determination of No Adverse Effect to cultural resources. A SHPO letter indicated concurrence with the no adverse determination.

The 2013 EA and 2015 FONSI are the analysis and decision documents, respectively, and this FMP is the resulting operational implementation plan. The EA process sought participation

and information from land and fire management partners, academic experts, neighboring communities, and other NPS programs. The 2015 FONSI states that the selected alternative for the Fire Management Plan:

"…will allow the use of prescribed burning, limited mechanical and herbicide use, and wildfire utilizing resource objectives as treatment tools. These tools will focus on proactive fire and vegetation management activities that would restore, protect, and preserve Seashore values (e.g., ecosystems and natural values, wilderness, cultural resources, risk to firefighters, recreational resources, private property, and NPS infrastructure)."

"Also included will be managing wildfire after natural lightning ignitions under certain conditions, using selected strategies and identified incident objectives in the Natural Zone fire management unit. Identified incident objectives in this zone may include resource objectives and the protection of other Seashore values."

"Very limited mechanical actions and herbicide use could occur in the Seashore Wilderness, as prescribed in an approved minimum requirements analysis (MRA) document (see Appendix D the MRA document for the Preferred Alternative [in the Environmental Assessment]*). Mechanical equipment such as masticators (brush cutters) and/or handheld motorized equipment, such as chainsaws, weed eaters, or similar hand-held equipment could be used along selected abandoned roads, (most are now considered trails, but some still have private vehicle use easements that pre-date wilderness designation)."*

In addition, the FONSI describes the why the selected alternative is also the environmentally preferable alternative for several reasons:

"…1) it would help to increase successful restoration and protection of Seashore natural and cultural values and adjacent private property; 2) it would help increase the resilience of fire dependent ecosystems to future natural disturbances such as wildfire, drought, insect outbreaks, and wind events; 3) it would help restore fire-adapted and unique ecosystems and associated wildlife; and 4) it would help reduce a significant fuel hazard in dense brush ground cover, making prescribed burning safer for employees and nearby residents and wildfire management and control more successful; and 5) it would restore variability and natural processes in the Seashore wilderness. For these reasons, the preferred alternative causes the least damage to the biological and physical environment and best protects, preserves, and enhances historical, cultural, and natural resources, thereby making it the environmentally preferable alternative."

This plan meets the requirements of:

- The National Environmental Policy Act (NEPA)
- Section 7 of the Endangered Species Act (ESA)
- Section 106 of the National Historical Preservation Act (NHPA)

1.4 Park Unit Resource Management Planning

Table 2: Resource Management Planning documents applicable to wildland fire management.

Document Name
General Management Plan (1984)
Resource Management Plan (1994)
Foundation Document (2014)

The park's 1984 General Management Plan (GMP) was developed to provide overall management direction for Cumberland Island for the foreseeable future (stated at that time as approximately 5-10 years). The 1984 document remains the GMP of record for the park. However, the GMP states that the NPS is committed to routinely evaluating the effectiveness of its operations at Cumberland Island and to modifying its plans as necessary, with any significant changes requiring public involvement. This FMP expounds on the objective and directives of the GMP and is compatible with that plan. In circumstances where modifications may have occurred, they were evaluated through the FMP's NEPA process, to include public involvement.

The GMP primarily addresses "Fire Control" in the Natural Resource Management section. The guidelines are outlined below, some of which specify requirements for a fire management plan:

- Wildfires that endanger life, unusual habitats, or improvements will be contained and extinguished.
- Other natural wildfires that appear to be restricted in their effects to small areas will be permitted to burn until the fuel is consumed—if the fires are similar to those that have given the island part of its character by their periodic interruption of succession in selected habitats.
- No larger wildfires will be allowed to burn unchecked unless a fire management plan has been prepared that substantiates the desirability of the burn in a given area.
- No prescribed burning will take place unless it is substantiated by related studies and a fire management plan.

Other objectives and management guidelines directly or indirectly related to fire management within the GMP are:

- Protect and enhance the natural and recreational values of the park by encouraging environmentally compatible park activities.
- Manage the seashore, to the extent possible, in ways that enhance the natural geological processes of the barrier island system and mitigate human impacts on these processes.
- Perpetuate the marsh and freshwater pond environments and forested areas in ways that promotes natural ecological succession and minimizes the adverse impacts of man's activities.

- Upland forests, freshwater and saltwater marsh vegetation, and dune vegetation will be maintained in a natural condition, with a special emphasis on maintaining habitat of endangered species.
- Wildlife management will be directed toward the maintenance of natural populations.
- Endangered and threatened species will be preserved by implementation of management and development programs sensitive to the habitat needs of these species.
- Preserve and make available as appropriate significant cultural resources.
- Protect, preserve, and utilize significant above ground structures (historic/cultural resources) in sound condition.
- Significant archeological resources will be protected and preserved.
- Provide visitor's safe and reasonable access and promote visitor safety in their use of the island resources.

Cumberland Island's 1994 Resource Management Plan (RMP) includes the following natural and cultural resource management objectives that are directly or indirectly pertinent to fire management:

- Protect and restore natural processes in the wilderness, potential wilderness, and environmental protection areas with minimal deviations allowed for fire (as defined in approved FMP) and endangered species management.
- Discourage uses incompatible with wilderness values in the potential wilderness area and natural processes in the environmental protection areas.
- Preserve the historic buildings, landscape features, and ruins on Cumberland Island.
- Protect all archeological sites, including those in retained right holdings, from human damage and erosion.

The RMP states that the NPS and the Georgia Forestry Commission (GFC) agreed to divide the responsibility for fire control on Cumberland Island. The GFC was given the responsibility of protecting privately owned lands on both islands, whereas protection of United States Government lands on Cumberland Island was placed under the jurisdiction of the National Park Service on Cumberland Island. At present, GFC and Camden County Fire and Rescue are the lead agencies for wildland fire management on Little Cumberland Island.

Each unit of the national park system is to have a foundation document that will provide basic guidance for planning and management decisions. The Foundation Document was completed in February 2014, and it includes core components that direct and support this fire management plan. Among the fundamental resources and values defined in the document are several that have direct or indirect necessity for a fire management plan to ensure their preservation and/or protection:

- Intact barrier island system driven by coastal geological and biological processes
- Live oak maritime forests

- Wilderness
- National register archeological districts and other significant archeological resources
- National register historic districts and their contributing features

The Foundation Document (2014) describes wildland fire as one of several key issues for the seashore, along with the associated planning and data needs to address them:

"Wildland fire is an important component of the ecology of Cumberland Island, with some species and habitats being fire adapted and dependent. However, the objective for fire management in recent history has largely been one of suppression, including the 2004 fire management plan. Suppression has led to alterations in habitat structure and heavy vegetative fuel loads. The heavy fuels have the potential for creating large, intense fires that are a danger to life and property, threaten cultural resources, and may devastate biological communities. A comprehensive fire management plan is being prepared for Cumberland Island National Seashore that will restore fire to its natural role on the island while providing for the safety of life, property, and cultural resources. Such a plan is critical for preserving and protecting the island resources and must be complemented by adequate levels of fire management personnel and equipment."

Among the fundamental resources and values defined in the document are several that have direct or indirect necessity for a fire management plan to ensure their preservation and/or protection:

- Intact barrier island system driven by coastal geological and biological processes
- Live oak maritime forests
- Wilderness
- National register archeological districts and other significant archeological resources
- National register historic districts and their contributing features

1.5 Collaborative Planning

The Atlantic Zone and park staff will facilitate, coordinate, and support communication and outreach with internal and external audiences to increase understanding and support of wildland fire management practices. If a wildland fire communication and education plan is developed, it will follow guidance from National Park Service RM 18, Chapter 20 (Communication and Education).

The Zone FMO actively participates in local fire preparedness and response planning with state, county, municipal, and federal partners. The NPS fosters relationships and maintains up-to-date agreements and operating plans that facilitate cooperation in detection, prevention, training, suppression, and fuels management activities. The NPS is committed to interagency planning and coordination to ensure the fire management program is implemented in a timely, safe, cost efficient, and professional manner.

The NPS collaborates on fire management activities with its interagency partners, state and

local cooperators, and members of the public. Interagency partners include Okefenokee National Wildlife Refuge, Timucuan Ecological & Historic Preserve (TIMU), and Osceola National Forest. Collaboration also occurs with Camden County Fire and Rescue, Saint Mary's Fire Department, and Georgia Forestry Commission (GFC). Outreach and coordination with the public including reserved estate holders, private landowners, island residents, and other interested public figures occurs through public meetings, mailings, and informal contact.

CUIS is a partner in the Tri-Agency Agreement which includes the National Park Service (CUIS and TIMU), the U.S. Fish and Wildlife Service (Okefenokee NWR), and the U.S. Forest Service (Osceola NF). The Tri-Agency Agreement provides mutual assistance to each agency for all fire management needs.

The NPS is a partner in the Georgia Interagency Burn Team, led by the U.S. Fish and Wildlife Service to promote the use of prescribed fire as a management tool to help restore or mimic historical fire regimes in fire-dependent ecosystems that were present prior to European settlement. These ecosystems, which include longleaf pine forests, have undergone significant structural changes and species composition over the last century due to fire exclusion and other land use impacts. More information is available at Georgia's Interagency Burn Team | U.S. Fish & Wildlife Service (fws.gov)

The NPS participates in a statewide Master Cooperative Wildland Fire Management and Stafford Act Response Agreement that includes other federal agencies and the Georgia Forestry Commission. The 2023 agreement is available on the Wildland A123 Sharepoint CUIS page.

Information on cooperative agreements is described in Appendix C: Cooperative and Interagency Agreements.

1.6 Communication and Education

The purpose of a communication and education plan covering the fire management program is to provide accurate and timely fire management information to both internal and external audiences. CUIS will take action to inform the public and park visitors of all wildfires. In the case of wildfires, or during times of increased fire danger, the Superintendent or designee may, as a safety precaution, temporarily close part of the park to the visiting public. Every effort will be made to inform the general public of the situation. If a fire threatens to escape from NPS lands, adjacent authorities and landowners will be given as much advance warning as possible so that they may take appropriate action.

Communications will be stressed, with the local park frequency used for initial attack and a formal communications plan established for extended fire. The park fire program will continue to try to identify a way to create a dispatch center with a dispatcher for wildfire and prescribed fire incidents. Contact phone numbers are included in the park phone list and emergency contact list in Appendix D-4: Initial Response Plan.

Education of internal and external partners includes press releases, signs, posters, bulletin boards, and face-to-face contacts with visitors, all of which facilitate public awareness,

understanding, and support.

Mitigation includes closing the seashore to campfires and open flames during high fire danger; restricting location, type, and size of fires; creating and maintaining defensible space around seashore buildings; creating and maintaining fuel breaks; and reducing hazardous fuel in and around wildland-urban interface areas.

Public information and education are the cornerstones of a successful fire management program. Policy direction provided in DO-18 states that "…the NPS will administer its wildland fire program in a manner that will…educate employees and the public about the scope and effect of wildland fire management, including fuels management, resource protection, prevention, hazard/risk assessment, mitigation and rehabilitation, and fire's role in ecosystem management."

Program Capabilities

The FMO is responsible for implementing the overall information program as described in this section. CUIS has a park Public Information Officer that assists with public information needs for the fire management program daily when available. The park fire managers should anticipate the need to request an Information Officer from local cooperators or order it through the GICC as wildfires or periods of extreme fire danger warrants.

Contact List

CUIS has an extensive contact list due to interest in Park operations and past wildfire activity. This list is located with the Public Information Officer for the Park as he/she ensures all park information is released to the appropriate audience. Contact list is located in Appendix D.

Communications Step-Up Plan

As wildfire incidents, fuels treatment, and fire weather dictates, CUIS fire management communications may need to "step-up" in its scope. Events that could initiate increasing communication capabilities include, escalating fire danger, severe drought conditions, wildfire activity, fuels projects, smoke impacts, and public or media scrutiny. Activities that are associated with increasing capabilities include additional PIO's, increased media releases, additional signage, and additional fire management briefings to visitors before boarding the ferry.

Additional resources regarding fire prevention and education can be found in RM-18, Chapter 20, Communication and Education or at the NIFC Fire Prevention, Education and Mitigation website. Fire prevention is discussed in Section 3.3.4.

2.0 WILDLAND FIRE PROGRAM GOALS, OBJECTIVES, AND MANAGEMENT ACTIONS

2.1 Goals

The values of the NPS mission statement and Cohesive Strategy are reflected in the goals and

objectives listed below.

The seashore's fire management goals incorporate CUIS's strategic direction and overall management objectives as well as previously discussed federal fire management policy principles and goals, including firefighter and public safety, collaboration, and accountability.

The safety of firefighters and the public are our first priority. This FMP and activities defined within reflect this commitment. The commitment to and accountability for safety is a joint responsibility of all firefighters, managers, and administrators. Individuals must be responsible for their own performance and accountability. Each supervisor, employee, and volunteer has the responsibility to follow safe work practices and procedures, as well as identify and report unsafe conditions. All firefighters, fire line supervisors, fire managers, and agency administrators have the responsibility to ensure compliance with established safe firefighting practices.

Goal 1. Firefighter and public safety will receive the highest priority during every fire management activity.

Goal 2. Maintain the highest standards of professional and technical expertise in planning and implementing the wildland fire management program.

Goal 3. Protect values-at-risk, including historic buildings, landscape features, private and retained rights property, and ruins by identifying and utilizing appropriate landscape features including anchor points, fuel modifications, road systems, and natural barriers where and when possible. Focus suppression efforts at the interface with infrastructure and locations of irreplaceable natural and cultural resources.

Goal 4. Facilitate reciprocal fire management activities through the development and maintenance of cooperative agreements and working relationships with local fire management agencies.

Goal 5. Adhere to wilderness Minimum Requirements Analysis (MRA) standards when conducting wildland fire operations in the Cumberland Island Wilderness. Incorporate Minimum Impact Strategy and Tactics (MIST) into wildland fire operations in all areas of the seashore.

Goal 6. Restore the ecological role of fire where and when possible, through the use of prescribed fire and managed wildfire. Use wildland fire and non-fire treatments to manage vegetation composition, fuel load, and structure within the historic range of variability.

Goal 7. Manage vegetation and fuel loading around developed areas, along wildland-urban interface boundary areas and in proximity of cultural sites to reduce fire behavior potential and increase ability of firefighters to defend and protect these values in the event of a wildfire.

Goal 8. Conduct a fire monitoring program with monitoring levels commensurate with the scope of the fire management program. Utilize the information gained to continually evaluate and improve the fire management program.

Goal 9. Integrate knowledge gained through natural resource research into future fire

management decisions and actions.

Goal 10. Facilitate positive working relationships and communications with park staff, fire management organizations, cooperators, and the public. This includes federally recognized Tribes that have historical, cultural, economic or other interests in wildland fire activities.

Goal 11. Manage wildland fires in concert with federal, state, and local air quality regulations to protect the air quality of the local and adjacent airsheds.

2.2 Objectives

All FMUs:

- Maintain a functional communication system within the seashore that enables safe and effective wildland fire operations.
- Work with federal, state, and local cooperators to foster professional relations, training, and cooperation that is beneficial to all partners and enables greater effectiveness of the CUIS Fire Management Program.
- Enhance education of internal and external customers on Firewise® concepts, prevention of human-caused wildfire, and supports beneficial use of wildland fire in park ecosystems.
- Suppress all human-caused wildfires with 95% or greater being contained within the first operational period.
- Maintain designated fire breaks on a 1 to 3-year rotation.
- Protect structures, infrastructure, and improvements from wildfire and impacts of wildfire suppression.
- Protect cultural resources from wildfire and impacts of wildfire suppression.
- Protect sensitive, threatened and endangered species from wildfire and impacts of wildfire suppression
- Use prescribed fire and non-fire treatments to assist in the maintenance of cultural landscapes.

FMU-1:

- Manage wildfires ignited by natural causes (e.g., lightning) using selected strategies to achieve resource objectives.
- Suppress human-caused wildfires to protect the public, infrastructure, private property, threatened and endangered species, and park natural and cultural resources.
- Use prescribed fire as a tool to restore fire to its historical regime.
- Assist with the control of shrub and tree encroachment into wetlands to meet resource management goals.

FMU-2:

- Suppress wildfires, regardless of ignition source, to protect the public, infrastructure, private property, threatened and endangered species, and park natural and cultural resources.
- Limit the size of wildfires to the smallest extent possible, while providing for firefighter and public safety.
- Use prescribed fire and non-fire fuel treatments to restore and maintain the upland areas.
- Assist with the creation and/or maintenance of defensible space around NPS and seashore buildings.
- Reduce hazardous fuel accumulations within the FMU using prescribed fire and non-fire treatments according to the multi-year fuels treatment plan.
- Examine the benefits of creating an interpretative site/exhibit to better educate visitors and the public about wildland fire management, including the use of wildland fire to achieve resource benefits.

FMU-3:

- Prevent spread of wildfire to Little Cumberland Island from NPS lands; assist Georgia Forestry Commission and Camden County Fire Rescue suppression of wildfires on Little Cumberland Island in accordance with cooperative agreements.

For extended attack wildfires and prescribed fires, incident objectives will be defined in the decision document or prescribed fire burn plan, as well as the incident action plan.

3.0 WILDLAND FIRE OPERATIONAL GUIDANCE

CUIS has been divided into three Fire Management Units (FMUs) to facilitate the achievement of fire management objectives (see Figure 3). An FMU is any land management area definable by objectives, management constraints, topographic features, access, values-to-be-protected, political boundaries, fuel types, or major fire regime groups, etc., that sets it apart from management characteristics of an adjacent unit. The primary purpose of developing FMUs in fire management planning is to assist in organizing and evaluating information in complex landscapes.

The process of creating FMUs divides the landscape into smaller geographic areas to more easily describe physical/biological/social characteristics and depict associated planning guidance based on these characteristics. The information contained in the following sections may also be used for incident decision support. The organization and presentation of information should be concise and easily locatable for those purposes.

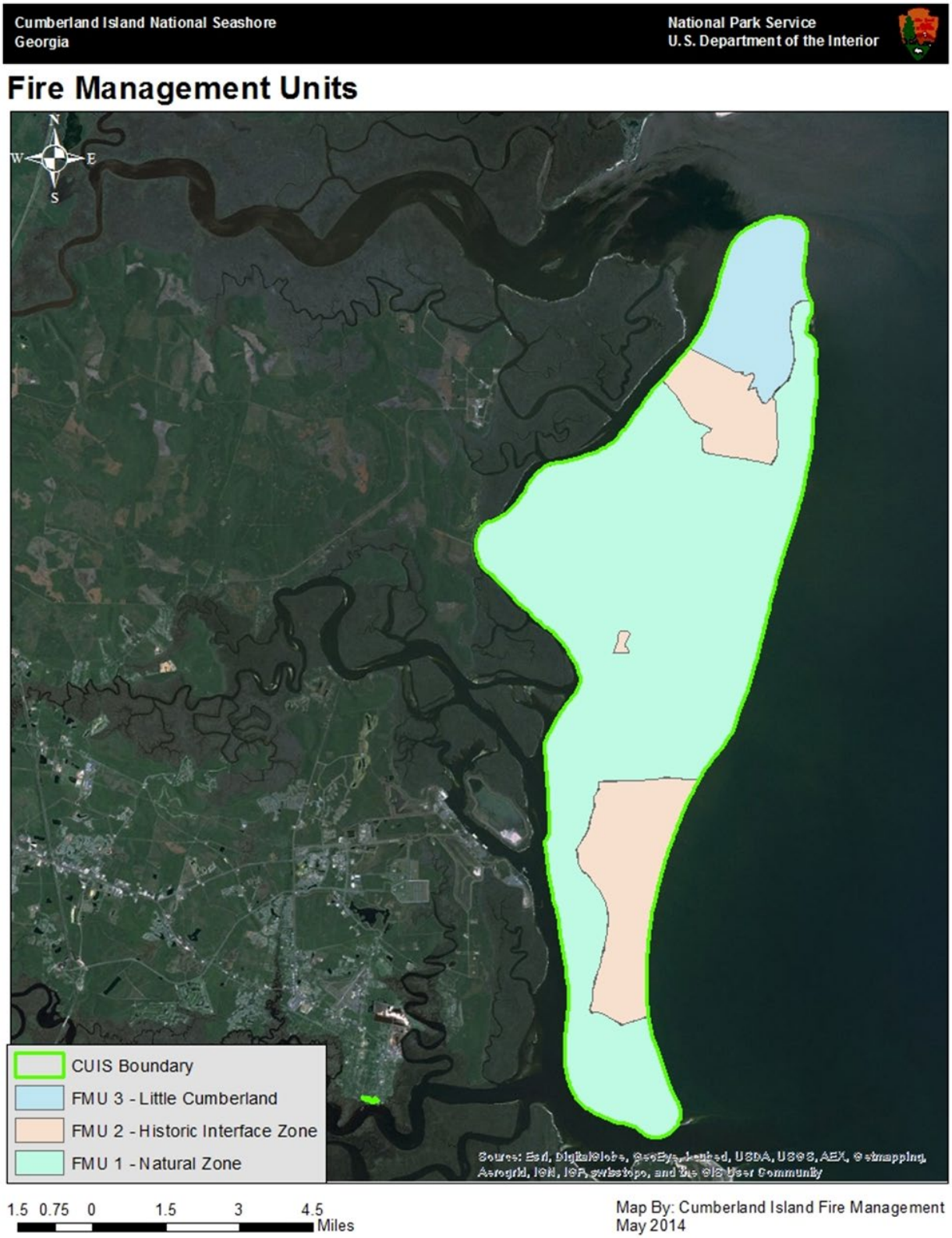


Figure 3: Fire Management Units (FMUs) within Cumberland Island National Seashore

FMU-1

Figure 4: Natural Zone FMU-1

Table 3: FMU-1 Snapshot

FMU Name	Natural Zone
FMU Identifier	FMU-CIP-1
Defining Characteristics	FMU is generally undeveloped areas of the island to include the wilderness area, marsh, and undisturbed uplands
Acres	27,160
Approved Fire Mgmt. Strategies	• Natural fire starts should be considered for use as fire for resource benefit, commensurate with human safety and property in all instances. • Emphasis on prevention, detection, rapid response, size up, and use of appropriate suppression techniques and tools. • Fixed wing air tankers can be used. • Retardant can be used only with park superintendent permission. • Helicopters with brackish water buckets can be used. • Use Minimum Impact Suppression Tactics (MIST) to reduce negative effects of suppression. • Prescribed fire can be used. • Non-fire fuel treatments can be used including chemical control of vegetation. • Fuel breaks can be created and maintained using road and trail systems as outlined in the 5-Year Treatment Plan.
Constraints	• Safety zones are limited in this FMU • Access is limited to the interior of this FMU • Use of heavy equipment and/or retardant requires specific permission from the superintendent for each event • Avoid unnecessary use of brackish water for bucket drops.
Associated Weather Station(s)	NOAA-Brunswick 29S, Stafford RAWS #099902
Dominant Vegetation or Fuels	Marsh grass, mixed oak hammock, pine stands, southern rough, coastal scrub.

FMU-1 Safety Considerations

Safety concerns for FMU-1 include:

- Fuel loading is considered high throughout the FMU with an abundance of light flashy fuels.
- Fuel breaks in the interior of this unit are limited.
- Snags are present.
- Reptiles such as alligators and venomous snakes are present.
- Emergency evacuation can be time consuming due to access.

- Lack of good safety zones throughout the FMU.
- Communication can be challenging in the FMU. Consider the use of human repeater.
- 4X4 vehicle required for dune crossings and beach access.
- Access for emergency vehicles can be limited and challenging.
- Shoreline landing via boat may be necessary and can be challenging.
- Tidal fluctuations.
- Smoke on the Intracoastal Waterway during wildfire and prescribed fire events.

Management Actions

- Firefighter and public safety are always the highest priority for all actions
- Manage lightning-caused wildfire to achieve resource benefits, including fuel reduction and restoration/maintenance of the historic fire regime.
- Use prescribed fire as a tool to restore fire to its historical regime.
- Create and maintain fuel breaks using road and trail systems as outlined in the 5-Year Treatment Plan.
- Restore wetlands in the FMU with the use of fire to control encroachment.

Approved Management Tools/Strategies

The NPS will implement a combination of fire management tools to include wildfire suppression, management of wildfire for resource benefit, prescribed fire, limited non-fire mechanical fuels treatments, and limited chemical control of vegetation. The use of helicopters can be used. Use of fixed wing air tanker can be used. Use of retardant should only be used in proximity of structures and for the protection of life and property and can only be used with the permission of the Superintendent. Heavy equipment may be used for the protection of life and property with the permission of the Superintendent. Use enhanced education of public on benefits of fire in fire adapted ecosystems.

Fire Environment

This FMU is diverse in fuel types including a large number of mixed hardwoods and oak hammocks. Marsh grass is very abundant in this FMU and includes freshwater wetland areas in the interior of the unit. Pine stands are present as well as vast amounts of southern rough and pocosin. The east edge of the unit consists of coastal scrub associated with dune lines that run south to north. Grass is also present in the FMU.

FMU-1 has the highest fire frequency (all fire causes) of the park. Research has shown that pre-settlement fire regimes were between 7 and 15 years in the pine and mixed pine stands. Pre-settlement fire regimes in the partially sheltered oak hammocks were 15 years (Frost 2011). Fire history maps show most recorded fires in the northern third of the FMU.

Access to the interior of this FMU is limited and roads and trails are not adequate to serve as fire breaks. It is possible for a fire to smolder and gather heat for a few burn periods before detection occurs. Once fire is established it has proven difficult to attack and control. Fire behavior can be extreme as pine stands, southern rough, and grass come in alignment with dominant afternoon sea breezes or thunderstorm down drafts. Containment of wildfires to this FMU on the north boundary will be difficult unless fire breaks are created and maintained.

There are reserved estate and park service structures and infrastructure located within the boundaries and adjacent to this FMU. Any fire management action should consider the effects on these structures and properties. Water sources are extremely limited for engine fill and bucket work in this FMU. One good freshwater source is located at the Old River Trail south of Plum Orchard.

Resource Values/Management Constraints

Significant cultural and natural resources are present in FMU-1 and a resource adviser should be notified when planning any fire management action in the FMU. Development/infrastructure within and/or adjacent to this FMU includes the High Point – Half Moon Bluff Historic District, Table Point Archeological District, Rayfield Archeological District, Plum Orchard Historic District, Stafford Historic District, and Dungeness Historic District, and other reserved estate structures. Archeological sites and other cultural resources are found scattered throughout the FMU. Real property within the unit includes the Hawkins Creek dock, four bridges on the Main Road, electrical utility infrastructure, the Morris tract, the Table Point Co. (Perkins) tract, the Bullard Tract, the Richards tract, and three backcountry campgrounds. All these features, assets, and properties have the potential to be affected by fire management actions in this FMU.

The Cumberland Island Wilderness is situated within FMU-1 and wilderness character and values must be considered when planning any fire management action in that area. This includes the use of mechanical equipment. The main road has a right of way on both sides that can be considered outside of the wilderness. Most trails are foot travel only unless a Minimum Tool Requirement authorizes the use of other means. Minimum Tool Requirement worksheets will be created on a project specific basis. Beyond the wilderness, the remainder of the FMU is generally undeveloped and preserved in its primitive state. All fire management actions should respect those conditions and minimize disturbance.

Use of aircraft in the FMU is allowed but, wilderness characteristics need to be considered. Water supplies are very limited, and it may be necessary to use brackish water drawn from Cumberland Sound/River for helicopter bucket drops. Fixed-wing aircraft are authorized for use, but retardant drops should be limited to the protection of life and property. If fixed-wing air tanker drops are necessary, consider the use of water or a mixture of water and foam.

The Intracoastal Waterway is immediately west and south of this FMU and Interstate 95 is located approximately ten miles to the west. Kings Bay Naval Submarine Base; St. Marys, Georgia; Fernandina Beach, Florida; and Jekyll Island, Georgia, are all less than six miles from the FMU. Smoke management needs to be coordinated with the Camden County, St.

Marys, Ga, Georgia Forestry Commission, Kings Bay Naval Base, U.S. Coast Guard, Fort Clinch State Park, Fernandina Beach, FL, and Nassau County FL Fire and Rescue.

FMU-2: Historic Interface Zone

The Historic Interface Zone (FMU-2) is divided into three separate areas of the island and takes in approximately 6,286 acres (see figure 4). A northern segment of the unit encompasses the High Point, Half Moon Bluff, Settlement, and Cumberland Wharf areas of the High Point – Half Moon Bluff Historic District. A central segment covers the Plum Orchard Historic District. A southern segment covers the Stafford Plantation Historic District, the Greyfield Historic District (private), the Rockefeller Tracts (private), Sea Camp, and the Dungeness Historic District.

Figure 5: Historic Interface Zone FMU-2

There are multiple operational docks within FMU-2, with the main ones located at Dungeness, Sea Camp, Plum Orchard, and Greyfield (private and used by permission only). The FMU has numerous roads and trails throughout it. The southern component of this FMU has the most visitor occurrence on the island. Visitor destinations include the Dungeness Historic District, Sea Camp ranger station and campground, Greyfield Inn, and Stafford Campground. Additional visitor activity can also be expected at Plum Orchard and The Settlement. Overall, the FMU also supports the vast majority of operational, storage, and residential activity (NPS and private) on the island, particularly the southern component.

Significant areas within FMU-2 (north to south) include:

High Point – Half Moon Bluff Historic District includes The Settlement and Half Moon Bluff areas, which contain the First African Baptist Church and four residential tracts. Daily guided tours bring visitors to the site. The High Point area of the district is a reserved estate tract containing nine residential structures and occupancy can be high at times. Other cultural resources found within the district include the High Point Cemetery and the Cumberland Wharf ruins.

Plum Orchard Historic District includes a historic mansion, boat dock, and the park's hunt camp. There are additional residential and support buildings (both NPS and reserved estate properties). Visitors tour the mansion and grounds throughout the day.

Stafford Historic District includes a historic mansion, numerous other buildings, a cemetery and The Chimneys, a significant archeological site. Primary activity is residential use associated with reserved estate property. Private residential area of Serendipity is just north of the district and Stafford Campground is on the southeast edge.

Greyfield Historic District is privately owned and includes a full-service inn, support buildings, a dock, and several residences. Occupancy can be high at times.

The Rockefeller tract is a privately-owned area with approximately five residential structures, two docks, and additional outbuildings. Occupancy can be high at times.

The Sea Camp area includes the Ranger Station and ferry dock on the west side and the front country campground on the east side, which includes 16 sites (maximum capacity 60 people) and two group sites (15-20 people).

Dungeness Historic District contains numerous historic structures many of which have been adapted for park operational, logistical, or residential use. The district also supports concentrated visitor services and activities. Dungeness District includes the ruins of the Dungeness Mansion and the nationally significant Tabby House.

Table 4: FMU-2 Snapshot

FMU Name	Historic Interface
FMU Identifier	FMU-CIP-2
Defining Characteristics	FMU encompasses the developed areas and Historic Districts of the Seashore
Acres	6,286
Approved Fire Mgmt. Strategies	• Wildland fires will be a high priority for suppression action. Natural Fire starts should be suppressed commensurate with human safety and property in all instances. • Natural fire starts should be suppressed in a cost-effective way using existing fuel breaks, roads and trails where possible. • Prescribed fire can be used • Non fire treatments can be used including limited chemical treatment of vegetation. • Fuel breaks can be created and maintained using road and trail systems. • Emphasis on prevention, detection, rapid response, and size up. • Fixed wing air tankers can be used. • Retardant can be used only with park superintendent permission. • Helicopter can be used for bucket work • Equipment such as tractor plow, bulldozer, or similar may be used for the protection of life and property with the permission of the park superintendent • Use Minimum Impact Suppression Tactics to reduce negative effects of suppression.
Constraints	• Use of heavy equipment and/or retardant requires specific permission from the superintendent for each event. • Avoid unnecessary use of brackish water for bucket drops. • Multiple cultural resources in the FMU. Consult with resource advisor.
Associated Weather Station(s)	NOAA-Brunswick 29S, Stafford RAWS # 099902
Dominant Vegetation or Fuels	Mixed oak hammock, southern rough, pine stands, coastal brush, marsh grass

Safety Considerations

Safety concerns for FMU-2 include:

- Lack of safety zones once you depart main road
- Communications can be limited in this FMU. Consider using a human repeater for radio traffic.
- 4x4 vehicles required for dune crossing and beach access
- Docking boats
- Tidal fluctuations
- WUI
- Potential hazardous material associated with buildings
- Snags are present
- High fuel loadings
- Light flashy fuels
- Limited water supply until a portable tank gets established
- Reptiles such as alligators and venomous snakes are present
- Smoke on the Intracoastal Waterway during wildfire and prescribed fire events.

Desired Conditions/Goals/Objectives

- Consider firefighter and public safety (always the highest priority).
- Suppress all wildfires in a cost-effective manner, consistent with resource objectives, and values to be protected.
- Create and/or maintain defensible space around private and seashore buildings.
- Reduce hazardous fuels using prescribed fire and non-fire treatments according to the multi-year fuels treatment plan.
- Create an interpretative site/exhibit to better educate visitors and the public about the benefits of fire.
- Work with park, private, and reserved estate owners to adopt Firewise practices.

Fire Environment

FMU-2 has a mix of fuel types. These include hardwood closed canopy forest, coastal scrub, palmetto, pine stands, and grass. Fire behavior can be expected to change drastically and unexpected with any change in fuel type.

WUI makes this FMU complex in management. Successful prescribed burn treatments were completed in the entire area of The Settlement from 2019-2022. These initial treatments along with annual mechanical treatments have significantly reduced the wildfire risk to structures in The Settlement and High Point areas. Prescribed fire and mechanical treatments must be

maintained at regular intervals described in the Multi-Year Fuels Treatment Plan (Appendix E) to preserve this reduced threat.

Approved Management Tools/Strategies

CUIS will implement a combination of fire management tools to include wildland fire suppression, prescribed fire, and non-fire mechanical fuels treatments including limited chemical control of vegetation. The use of heavy equipment, specifically bulldozers but can include other types, can be considered but should only be used in the event of protection of life and property. Heavy equipment should only be used in nearby proximity to structures and private properties. Use of heavy equipment must have permission from park superintendent. Use of fixed wing air tanker can be used. Use or retardant should only be used in proximity of structures and in the protection of life and property. Helicopters with buckets may be used in this FMU.

Resource Values/Management Constraints

FMU-2 has considerable constraints to fire management. This FMU is the most developed within the park. It hosts five historic districts with associated cultural resources such as historic structures, cultural landscapes, archeological sites, cemeteries, and other features. Residential locations range in occupancy from a single full-time time resident to a full-service inn to seasonal occupancy that can be relatively high. The areas within the FMU constitute the most active visitor sites on the island. Dungeness and Sea Camp docks within the FMU are the gateway for park visitors.

FMU-3 Little Cumberland

Little Cumberland Island is located north of the larger Cumberland Island, with Christmas Creek separating the two. While Little Cumberland is within the Seashore boundaries, it is privately owned throughout and is managed by its own homeowner's association.

Figure 6: Little Cumberland FMU 3

In consideration of its ownership, management, and jurisdiction Little Cumberland has been designated as a distinct FMU, encompassing approximately 3,437 acres. The boundaries of the FMU are Christmas Creek to the south, Cumberland River on the west, St. Andrews Sound on the north, and the Atlantic Ocean on the east. The NPS is considered a cooperator to Camden County and Georgia Forestry commission for fire management of this FMU. Access to Little Cumberland Island is extremely difficult with limited locations for boat landings. Once on the island there are no agency vehicles, so travel is by foot or private landowner.

FMU Operational Guidance

Camden County Fire and Rescue and the Georgia Forestry Commission are the lead agencies for fire management on Little Cumberland Island. CUIS will assist Camden County and the Georgia Forestry Commission according to annual operating plans and requests from the lead agencies. A unified command structure is suggested for incidents within this FMU.

3.1 Management of Wildfires

The NPS may use the full range of responses to a wildfire including monitoring, confine, contain, and full control strategies. One or more strategies may be used on a single fire to achieve park management objectives. Initial action on trespass and human-caused wildfires will be to suppress the fire at the lowest cost with the fewest negative consequences with respect to firefighter and public safety.

In FMU-1, lightning-caused wildfires may be managed for resource objectives. The management actions described in this FMP are supported by the decisions and agreements identified in the NEPA compliance document.

Fire management staff may use all fire management actions/strategies allowable by NPS policy. Examples of fire management actions/strategies through suppression tactics would be to confine the fire to an area where fire is acceptable under favorable environmental conditions or to influence a portion of the fire perimeter to keep the fire from entering an area where fire is not acceptable.

"*A wildland fire may be concurrently managed for one or more objectives and objectives can change as the fire spreads across the landscape. Objectives are affected by changes in fuels, weather, topography; varying social understanding and tolerance; and involvement of other governmental jurisdictions having different missions and objectives*." (Interagency Standards for Fire and Aviation Operations, Chapter 1)

Important values and resources to be protected from wildfire or attendant fire suppression actions include historic structures, cultural and historic landscapes, park administrative and operations facilities, water quality, soils, and adjacent aquatic environments. In addition, there are an abundance of cultural and natural resources, including threatened and endangered plant and animal species that will be protected from damaging wildfire and impacts from fire suppression activities.

3.1.1 Wildfire Response Planning

Wildfire response planning at CUIS is based on the logic of the defined FMUs. The response program is supported through federal interagency and through inter-governmental cooperation with state and county fire protection responsibilities. CUIS is a partner in the Tri-Agency Agreement which includes the National Park Service (CUIS and Timucuan Ecological and Historic Preserve), the U.S. Fish and Wildlife Service (Okefenokee NWR), and the U.S. Forest Service (Osceola NF). The Tri-Agency Agreement provides mutual assistance to each agency for all fire management needs.

The Georgia Forestry Commission (gatrees.org) and Fire Rescue | Camden County, GA - Official Website (camdencountyga.gov) are important non-federal cooperators.

All emergency incidents within CUIS are handled internally by the NPS. However, initial reports of wildfires may involve the local E-911 | CCSO (camdensheriff.org), who will provide additional local dispatch and coordination as needed.

Wildfire response is based on fire location and defined FMU strategies. Consideration will be given to weather, fuel conditions, seasonal timing, and available resources in all management decisions. Human-caused fires will require an investigation and report by law enforcement or a trained individual.

In terms of aviation planning, due to a lack of aviation use in recent years, CUIS is currently considered a Level 3 park and is not required to develop a park-level Aviation Management Plan. Drones and other aviation operations used for wildland fire management, if approved and authorized, would operate under the Regional Aviation Management Plan. A Project Aviation Safety Plan (PASP) would also be completed where required prior to any aviation operations. Aviation retardant use will not occur unless approved by the Superintendent. The Zone FMO should provide GICC with a copy of the language from this FMP restricting airtanker retardant use. This will help facilitate requests for water drops during an emerging incident.

Preparing for Unplanned Ignitions

Preparing for wildfire response includes, but is not limited to:

- Ensure that all agreements and operating plans are current and meet the needs of the NPS and cooperators of CUIS.
- Maintain firefighting equipment to a state of readiness and keep fire cache in a state to outfit the needs of a 10-person crew.
- Ensure procedures are in place to conduct all fire operations in designated wilderness in accordance with the Minimum Tool Analysis in the Wilderness, as well as Minimum Impact Strategy and Tactics (MIST).
- Maintain the capability to respond to wildfires using the full range of management strategies to protect, restore or maintain resources within the park.
- Conduct morning briefings with fire personnel on current weather, drought conditions, local and national situation report, and safety topics.

- Prepare a pre fire season risk assessment and examine the current condition and fire danger.

Risk Assessment

When an unplanned ignition occurs, a size-up will be obtained by the first person on the scene of the incident. The Zone FMO or Duty Officer will analyze the size-up information, complete an incident complexity analysis, plot the incident into the correct FMU, and make an informed recommendation on the fire management action for the incident. After analyzing the information, the Zone FMO or Duty Officer will discuss the applicable information with the Superintendent and determine a course of action.

When determining the level of risk for an unplanned ignition, the Zone FMO or Duty Officer will consider long term drought conditions, seasonal timing, current and expected weather conditions, current fuel conditions, current ERC/BI indices, location of ignition, resources and property at risk, and availability of resources both locally and nationally.

Implementation Procedures

In expectation of unplanned ignitions, the Zone FMO and Superintendent will complete the preparedness pre-fire season checklist to ensure the Park is ready for fire management activities. The Zone FMO and Superintendent should conduct preseason training to ensure all parties involved in unplanned ignitions can navigate the Wildland Fire Decision Support System (WFDSS). The FMO or Duty Officer will initiate the WFDSS record for each incident that requires a decision and the Superintendent will review and approve decisions as needed. An incident will also need to be created in InFORM for record keeping purposes.

Every unplanned ignition will have an incident size-up conducted by the first person on scene. The FMO or IC will conduct a risk and complexity assessment to determine level of incident command necessary. The FMO will coordinate getting a dispatch system set up for incidents that exceed a Type 5 incident. If possible and if a qualified dispatcher is available, an initial attack dispatch will be set up locally within the park. Preferred locations are the Captain's House on the island or the Bachlott House on the mainland. It is important the initial attack dispatcher has access to a base station radio, computer, and land line telephone. The FMO will coordinate all resource orders through the GICC and SACC and keep the geographic dispatch centers up to date on the situation.

CUIS has weather monitoring capabilities throughout the island. The Park maintains a RAWS (Remote Automated Weather Station) station located on the north end of the island just off the Candler Road, west of the High Point complex. The station is named Stafford, its WIMS ID is 099902, and station data can be accessed on the internet at Stafford-CUIS Georgia (dri.edu) and the Fire Environment Mapping System.

NOAA maintains a CRN station on the southern end of Stafford Field, identified as GA Brunswick 23S. While not devoted specifically to fire weather data, the station provides usable data for the middle of the island including surface air temperature, precipitation, solar radiation, and wind speed. Real-time data from the station can be obtained on the

internet at GA Brunswick 23 S Summary (noaa.gov)

GFC maintains the Sterling RAWS station located just to the west of Brunswick, Georgia, and is approximately 20 miles northwest of Cumberland Island. The Sterling RAWS has representative weather data for the north end of the island including FMU 3. Station data can be found at Sterling Georgia (dri.edu).

CUIS uses the NFDRS fuel model Y as the primary fuel model for decision making and analysis.

Staffing

The Seashore's org chart is staffed with a Zone FMO, Fire Program Management Assistant, Fire Planner, Prescribed Fire Technician, Fire Operations Technician, and Senior Wildland Firefighter. The Zone FMO is the point person for all fire management activities at CUIS. CUIS also currently has a few red-carded individuals that have qualifications as FFT2. The Facilities and Maintenance Division has employees that can assist with fire management activities such as boat operations, drivers, camp set-up, logistics, etc. The park needs to continue to develop, recruit, and train employees to assist with fire management activities. During normal fire seasons, a minimum of one Incident Commander Type 4 and/or Engine Boss will be on staff and available for fire assignment.

If an incident in the park exceeds a Type 4 complexity, draw down on park employees will occur and all divisions within the park will need to assist fire operations until incoming resources are obtained and briefed. The use of the step-up plan based on current fire danger can assist with obtaining severity funding for additional resources during times of elevated fire danger.

Information

All CUIS information/education will follow the guidance in RM-18 Chapter 21 Communication and Education. Through press releases issued by the seashore's Public Information Officer, CUIS will inform the public of the risks associated with wildfires and the roles and cooperative efforts of the NPS in fighting wildfires and protecting life and property as well as the role/benefits of wildland fire. The park PIO will gather information for all fire management activities and put together a press release that will include local media, stakeholders, island residents, property owners, and cooperators. The park PIO maintains an up-to-date list of contacts that press releases are to be sent to.

3.1.1.1 Expected Fire Behavior

Fire behavior experienced at CUIS can run the entire range of attributes depending on fuel types and environmental conditions. Fire behavior can range from short duration with high rates of spread in light, flashy fuels up to long duration with extreme fire behavior characteristics in the mixed palmetto-brush and savannah of the northern wilderness area. The topography is typically flat.

Fire season at CUIS can run year-round, but a typical season tends to run from April to

September. Environmental conditions can drastically alter fire behavior from year to year. Extended drought years and low water levels can significantly affect fire potential and behavior. Active tropical seasons can also have a significant effect on fire potential and behavior.

Vegetation and Fuel Models

Approximately 500 plant species have been identified on the island, encompassing 22 distinct plant communities and 34 vegetation classifications. Vegetation within seashore boundaries is closely related to soil type, past land use, and fire history. Dry soils on Cumberland Island support vegetation in various stages of succession from open pine stands to mixed oak and pine, to xeric oak hammock. Large hardwoods, particularly live oak (*Quercus virginiana*) and laurel oak (Q. laurifolia), occur on many of these sites. Remnant slash pine (*Pinus elliottii*) and longleaf pine (*P. palustris*) still occur in their historic natural densities in numerous areas. Loblolly pine (*P. taeda*) grows in higher densities where it was planted and on old field sites. Where soil has not been disturbed by agricultural tilling, understory species including piney woods dropseed (*Sporobolus junceus*), Wavy-leaf Noseburn (*Tragia urens*), Longlead milkweed (*Asclepias longifolia*), and grasses (*Aristida* spp. and *Stipa* spp.) are scattered.

Mesic upland sites are dominated by either oak scrub or live oak hammock, depending on fire history. Oak scrub grows on an expansive area of Mandarin fine sand on the north end of the island, which burned in high intensity fires in 1934, 1954, 1981, 2008, 2019 and which partially burned in 1993. A smaller area of scrub grows on Table Point, where severe fires burned most of the point in 1924, 1963, and 1977, with portions of the area burned in 1980. Similar soils on the narrow south end of the island, where there have not been large wildland fires, are vegetated by mesic hammock. Both scrub and hammock vegetation types contain live oak (*Q. virginiana*), sand live oak (*Q. geminata*), slash pine (*P. elliottii*), pond pine (*P. serotina*), lyonia (*Lyonia* spp.) saw palmetto (*Serenoa repens*), red bay (*Persea borbonia*), tarflower (*Befaria racemosa*), and blueberry (*Vaccinium* spp.). Where hammock vegetation is well developed, epiphytic Spanish moss (*Tillandsia usneoides*) and resurrection fern (*Pleopeltis polypodioides*) grow on the branches of oaks reaching three and four feet in diameter. Cumberland Island's scrub is very similar to the scrub and scrubby flatwoods vegetation found on Florida's central ridges and panhandle (Davison 1984).

Diverse wetlands, surrounded by saw palmetto (*Serenoa repens*) and inkberry (*Ilex glabra*), support various vegetation types including sawgrass (*Cladium jamaicense*), cordgrass (*Spartina* spp.), and red bay (*Persea borbonia*). Saltwater marshes of saltmarsh cordgrass (*Spartina alterniflora*) flank the western edge of the island. Expansive dunes dominated by wax myrtle (Myrica cerifera), cordgrass, sedges, sea oats (*Uniola paniculata*), and cabbage palm (*Sabal palmetto*) run the length of the east side of the island.

Specific plant communities that characterize each FMU:

FMU – 1: Dominated by marsh grass, mixed oak hammock, pine stands, southern

rough, coastal scrub. Data shows that this FMU is diverse in fuel types. Fuel types include a large number of mixed hardwoods and oak hammocks. Marsh grass is very abundant and includes freshwater wetland areas in the interior of the unit. Pine stands are present as well as vast amounts of southern rough and pocosin. The east edge of the unit consists of coastal scrub associated with dune lines that run south to north. Grass is also present in the FMU. This FMU has the highest fire frequency of the park. Research has shown that pre-settlement fire regimes were between 7 and 15 years in the pine and mixed pine stands. Pre-settlement fire regimes in the partially sheltered oak hammocks were 15 years (Frost 2011). Fire history maps show most recorded fires in the northern third of the FMU.

FMU – 2: Composed of a mix of fuel types, including mixed oak hammock, southern rough, pine stands, coastal brush, and marsh grass. Also includes hardwood closed canopy forest, coastal scrub, palmetto, pine stands, and grass. Fire behavior can be expected to change drastically and unexpected with a change in fuel type.

FMU – 3: Primarily mixed oak hammock, pine stands, coastal brush, marsh grass

The primary Fire Behavior Fuel Models (Scott and Burgan, 2006) are characterized as TU2 and SH4 with isolated areas of SH9 and SH3, based on the vegetation map developed by the South East Coastal Network. TU2 is the Coastal Oak Maritime Forest and also has low fire behavior and low probability of fire continuing to burn through the night. SH4 shows all areas with pine influence and have the highest potential for burning. SH9 is Southern Oak Scrub with a high potential for extreme fire behavior. SH3 is open field and has low fire behavior and low probability of fire continuing to burn through the night. TU2's and SH4's low fire behavior is mostly due to lack of grasses and other light flashy fuels.

Range of Potential Fire Behavior

Resistance to control efforts during typical conditions will generally be low. During extended dry periods, low fuel moistures, with strong winds, potential fire behavior increases presenting challenges for suppression operations, with isolated torching and spotting likely. If a wildfire becomes established and begins to move in the primary fuel types, direct attack by firefighters will require engine support.

Fire staff will continue to evaluate fuels and observe fire behavior during wildland fire incidents and will update fuels maps in future FMPs as needed.

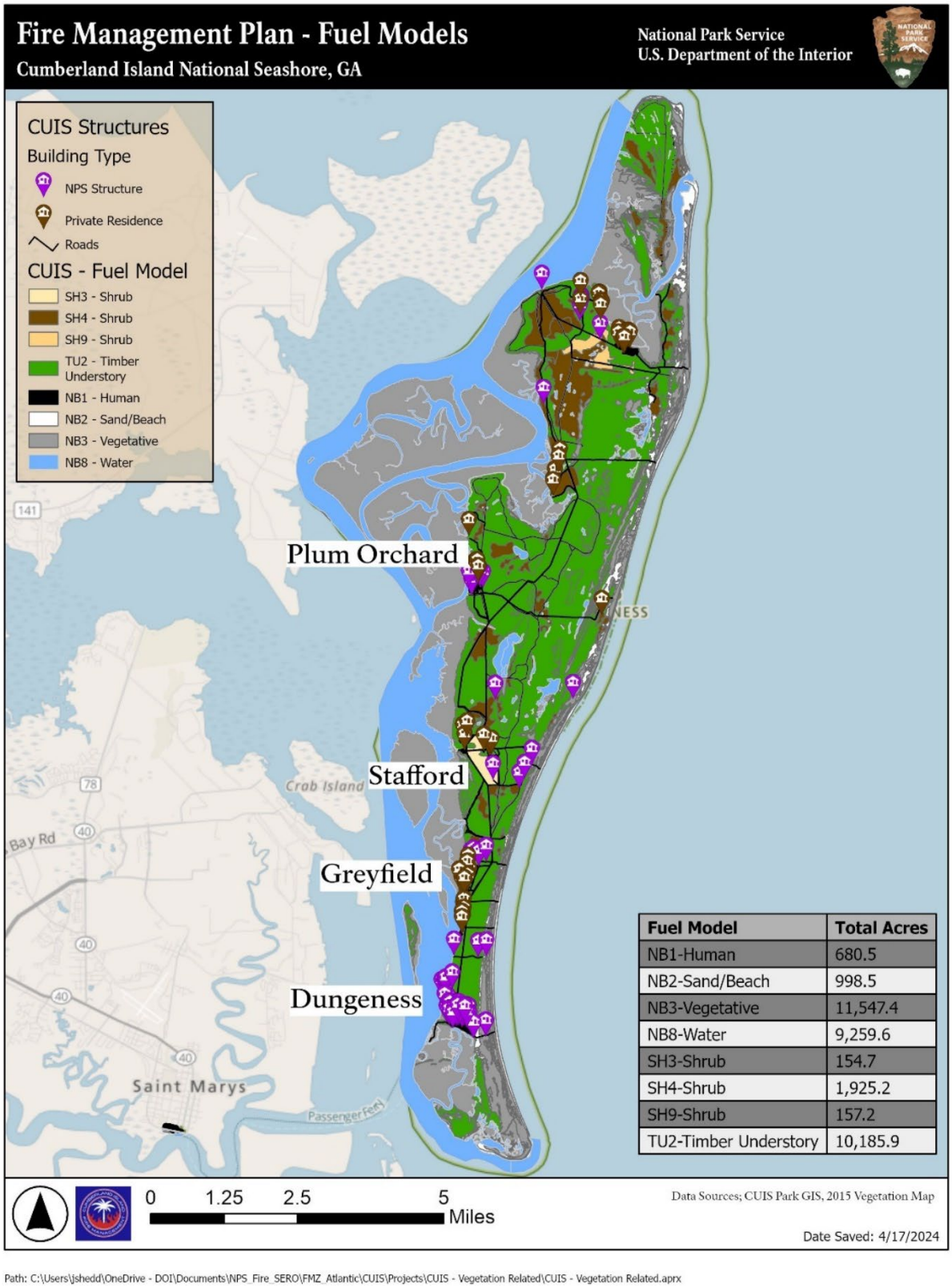
Table 5: Modeled Fire Behavior of Typical and Extreme Fire Behavior Scenarios

Description	FM 40	Typical ROS	Extreme ROS	Typical FL	Extreme FL
Moderate Load, Humid Climate Timber-Shrub; Coastal Oak maritime forest	TU2	0.5 to 4	4 to 10	0.5 to 2	2 to 4

Low Load, Humid Climate Timber-Shrub; mixed hardwoods with pine influence	SH4	0.3 to 2.5	2 to 6	0.5 to 1.5	1.5 to 2
Very High Load, Humid Climate Shrub; Southern Oak Scrub	SH9	2 to 10	12 to 27	2 to 5	6 to 12

Note: FM 40 = Fuel Model 40; FM 13 = Fuel Models 13;

ROS = Rate of Spread, chains/hour; and FL = Flame Length, feet



Fuel Model	Total Acres
NB1-Human	680.5
NB2-Sand/Beach	998.5
NB3-Vegetative	11,547.4
NB8-Water	9,259.6
SH3-Shrub	154.7
SH4-Shrub	1,925.2
SH9-Shrub	157.2
TU2-Timber Understory	10,185.9

Figure 7: Currently identified primary fuel models at Cumberland Island NS

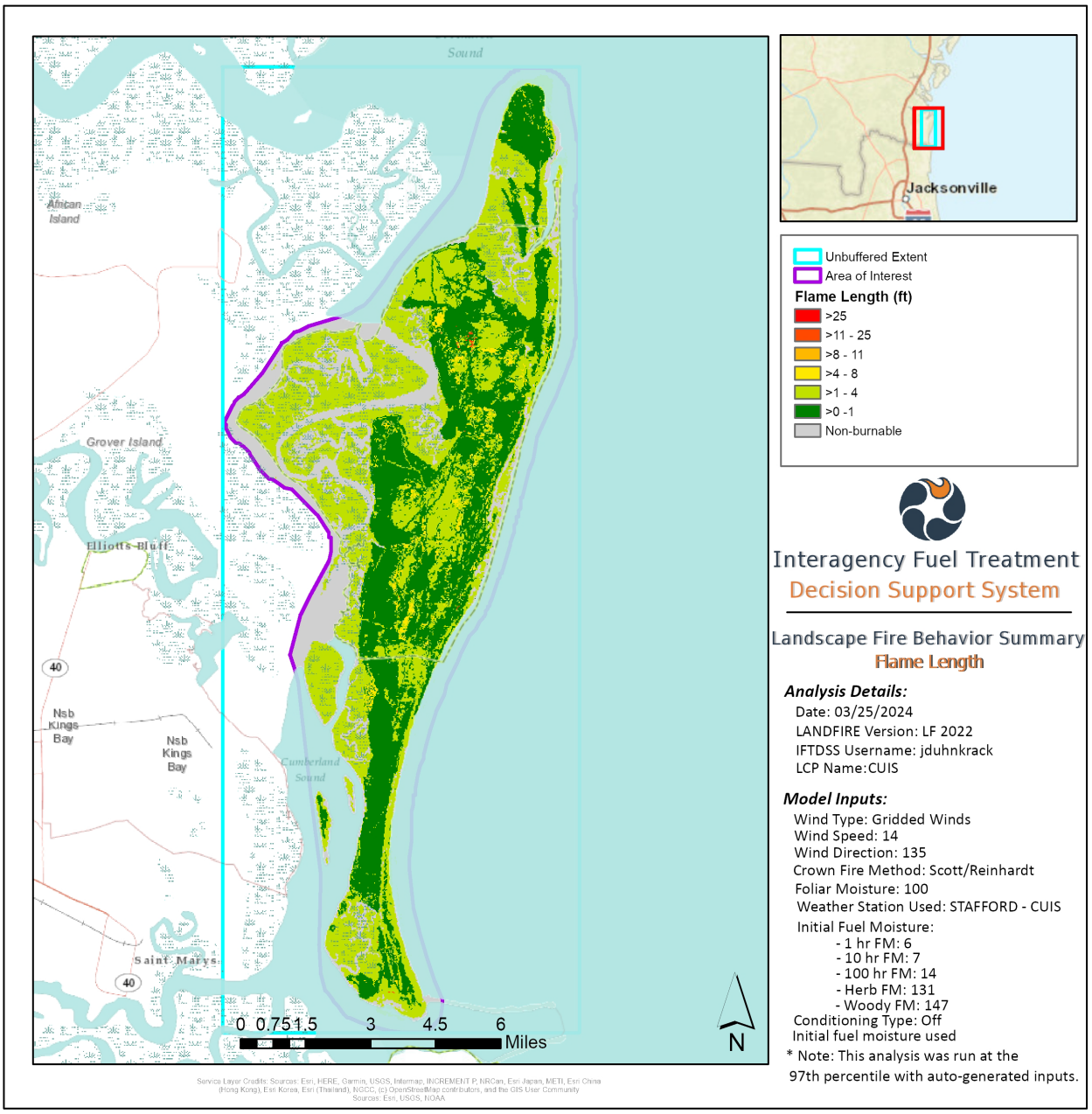


Figure 8: Potential flame length during 97th percentile weather and fuel conditions.

Critical Thresholds

The NFDRS Pocket Card for CUIS identifies past large fire activity relative to ERC as well as local thresholds to watch out for:

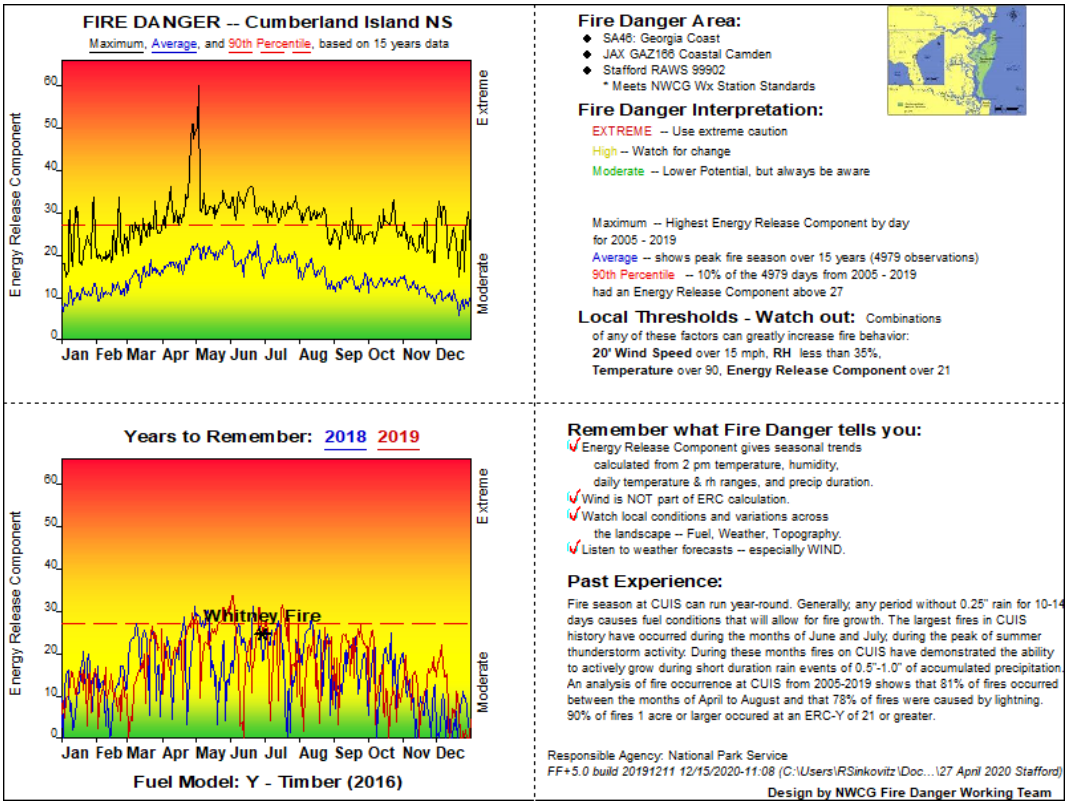


Figure 9: Cumberland Island National Seashore Pocket Card (Updated 2020)

Additionally, elevated fire danger conditions become more critical when one or more of the following occurs:

- Observed Fire Danger for the Stafford RAWS is Staffing Class 4 or above as indicated by FORECAST NFDRS READINGS (state.ga.us)
- NFDRS predicted indices **are above the 90th percentile** in combination with an identified High Risk Trigger (hot and dry, windy and dry, or lightning) and/or elevated (> 600) Keetch-Byram Drought Index (KBDI). For more information on fire danger and fuels see the Southern Area Coordination Center (nifc.gov). For outlooks, see Southern Area Coordination Center (nifc.gov). The KBDI is a mathematically calculated drought indicator relating to the amount of moisture in the top seven inches of soil or duff. It ranges from 0-800, with 0 being saturated and 800 indicating maximum drought. Drought directly influences the flammability of all fuel/vegetation complexes (as drought progresses the upper soil layers dry, increasing the amount of dead and cured live fuels available for consumption), which in turn influences fire behavior and control efforts.
- Point specific, real time fire weather indices and forecasts can be found at Fire

Weather (state.ga.us)

- Fire Weather Watches and Red Flag Warnings are issued when the combination of dry fuels and weather conditions support extreme fire danger and/or fire behavior. See current plans for more specifics: Georgia Fire Weather Services Operations Plan
    - Fire Weather Watches are issued to alert fire and land management agencies to the possibility of red flag conditions beyond the first forecast period (12 hours). The watch can be issued 18 to 96 hours in advance of the expected onset of criteria.
    - A Red Flag Warning is used to warn of an impending or occurring red flag event. Its issuance denotes a high degree of confidence that weather and fuel conditions consistent with red flag event criteria are occurring or will occur in 48 hours or less. Red Flag Warnings are a definite indicator of conditions conducive to large fire growth, rapid rates of spread, and difficult fire control conditions for firefighters.

The NWS Fire Weather information applicable to CUIS is located at:

- NWS Jacksonville, FL Fire Weather - A good source of information, including the ability to request a Spot Weather Forecast

The NWS Fire Weather Dashboard is located at:

- Fire Weather Dashboard

3.1.1.2 Initial Response Procedures

Initial attack for a wildfire is the first response efforts to suppress and control a wildfire once the fire is detected. Initial action forces can be a variety of resources that are utilized to implement actions to achieve initial goals of control. Initial attack resources may include firefighters from the Georgia Forestry Commission, Camden County Fire and Rescue, U.S. Forest Service, and the U.S. Fish and Wildlife Service). The Incident Commander (IC) will develop an appropriate initial attack response to the incident, brief all resources, organize and direct the fire resources on hand toward safe and efficient implementation of that response, monitor the effectiveness of the suppression tactics, and adjust strategy and tactics accordingly. If the IC is not qualified for the existing or predicted level of complexity, she/he will be replaced by a qualified IC at the first opportunity. The IC will be responsible for the fire until it is out or until she/he is relieved of that duty via a formal command change.

Wildfire response is based on fire location and defined FMU strategies. In FMU-1, wildfires may be managed for resource objectives. Consideration will be given to weather, fuel conditions, seasonal timing, and available resources in all management decisions. In all FMUs, human-caused fires require a suppression response as well as an investigation and report by law enforcement or a trained individual.

The NPS may use the full range of responses to a wildfire including monitoring, confine, contain, and full control strategies. One or more strategies may be used on a

single fire to achieve park management objectives. Initial action on trespass and human-caused wildfires will be to suppress the fire at the lowest cost with the fewest negative consequences with respect to firefighter and public safety. In FMU-2 and FMU-3, all wildfires, regardless of ignition cause, will be suppressed. FMU descriptions in describe in outline the suppression options that are available for fire managers in a specific FMU.

Firefighter and public safety are the highest priority for all responses. Responses will be dictated by current and expected weather conditions, location of report, time of season, resource availability, values at risk, and other considerations. Each response to a reported fire will receive one or more management strategies approved by the FMO, Duty Officer and/or Park Superintendent. Strategies are based on safety, weather, fuels, location, capability to accomplish objectives, and biological, cultural, or political constraints.

An Initial Response Plan is included in Appendix D-4.

Every fire start will get an initial size up and the Duty Officer will plot the incident into the proper FMU. Once the incident is plotted the Duty Officer will analyze the situation, discuss with the Agency Administrator, and determine a course of action. This information will be relayed to the IC.

All fires that undergo extended attack or are managed for multiple objectives, including resource benefit, are required to have a published decision in WFDSS, creating a document that requires Superintendent approval and a periodic assessment.

Information needed to Set Initial Attack Priorities

Incident Commanders will give incident size-up information to the FMO or the Duty Officer using the CUIS Incident Organizer. The information gathered using this organizer is the initial step in compiling data needed for setting initial response priorities. If more information is needed by either the FMO or Duty Officer, that information will be requested and utilized to support prioritization. Information needed for analysis and determination of initial response includes:

- Location of incident
- Latitude and Longitude
- FMU
- Size of incident
- Current fire behavior
- Current and expected weather
- Proximity to the Wildland Urban Interface
- Fuel Type

- Proximity to wilderness
- Cultural resources
- Wildlife concerns
- Natural resource concerns

Response Times

Response times vary for each incident at CUIS. The NPS has limited personnel that are fire fighter qualified and a variety of logistical issues can delay response. Typical first response will be by the FMO, red-carded park employees, or park law enforcement employees. The GFC or Camden County Fire and Rescue may respond to or assist seashore firefighters in the suppression of wildland fires at CUIS.

Fire response time at the seashore can vary greatly, primarily due to the location of the Park and access from the mainland. If additional resources from the mainland are needed it can take in excess of two hours to get individuals and equipment to the island. The Park has one landing craft that is suitable to move limited equipment from the mainland to the island but, is restricted to offloading on the island at mid to high tide. Boat transportation for personnel and equipment will almost always be necessary for any incident.

If seashore firefighters are not immediately available, the GFC, Camden County Fire and Rescue, US Forest Service or USFWS can respond under the authority of local and statewide agreement but response time is between two and four hours according to their location, tide tables, and availability of boat operators. Okefenokee National Wildlife Refuge may have a Type 3 helicopter stationed at the refuge during fire season. Typical response time for the helicopter when available is 45 minutes.

Management Requirements and Restrictions

In general, mechanical equipment will only be used in the wilderness area under the authority of a Minimum Tool Requirement or with the Superintendent's authorization. Aircraft have been approved for use in all FMUs however, wilderness characteristics must be considered when using aircraft in that area. The use of brackish water from helicopter buckets should be limited to the WUI and the holding of priority firelines. Fireline explosives are not authorized for use at the park. Retardant from fixed-wing aircraft requires the Superintendent's authorization and cannot be used within 300 feet of water resources. Additional requirements and restrictions are outlined in detail in the FMU descriptions. Initial response procedures will be consistent with firefighter, employee, and public safety, recognizing the values to be protected.

3.1.1.3 Transition to Extended Response

If the fire growth and/or complexity exceeds the initial response, the wildfire will be considered an extended attack incident, provided a new complexity rating, and will be

transitioned to an organization that can successfully manage the incident to conclusion.

When complexity levels exceed initial response capabilities, the appropriate Incident Command System (ICS) positions should be added commensurate with the complexity of the incident. The Incident Complexity Analysis and use of the WFDSS decision process (which includes a relative risk assessment and organizational needs analysis) will assist the manager in determining the appropriate management structure to provide for safe and efficient fire suppression operations.

The National Response Framework | FEMA.gov identifies the guiding principles that enable all response partners to prepare for and provide a unified national response to disasters and emergencies—from the smallest incident to the largest catastrophe. Refer to the Red Book, Chapter 11 for current direction on wildfire command and organizational structure.

This NPS Simple Six Form standardizes emerging incident reports and updates of existing incidents from the local to regional and if necessary national Fire Duty Officers for incidents on NPS lands or those posing and immediate threat to NPS jurisdiction. The form will be utilized when any of the following conditions apply:

1. Park or area closures are occurring or will likely occur;
2. Evacuations of park administrative areas and or visitors is occurring or will likely occur (housing campgrounds, other admin facilities etc.);
3. There are significant political concerns that would rise to a regional or national level and/or be reported on by the media;
4. Significant risk to high value assets and/or resources exists;
5. There are injuries or fatalities to firefighters or NPS staff and/or visitors.

Criteria for Transition

There are many factors that may influence the need for an IMT including:

- Firefighter and public safety impacted by fire or fire management activities
- Current and expected fire behavior projected to increase
- Current and expected environmental conditions contribute towards problematic fire behavior
- Social/political concerns are high priority
- Course of action requires a large or complex organization
- Multiple incidents on the same unit
- Expecting a long duration incident
- Complex or extended logistical support expected

All wildfires where initial actions prove unsuccessful will have a published decision support document in WFDSS that guides extended attack strategies and objectives.

Implementation Plan Requirements and Responsibilities

Incidents with long duration expectations require constant time and attention in order to execute the required periodic assessments and maintain accurate documentation to support decisions. The Zone FMO should remain an integral part of the decision support process and keep resource specialists, park rangers, the unit public information officer, and the Superintendent involved throughout the planning process.

The Zone FMO will also help determine how stakeholders, partners, and cooperators will be kept updated and informed on strategies that may impact those individuals. The Superintendent will remain engaged in an ongoing incident and be available to assist with decisions and validation of courses of action.

Support and Logistics

Logistics in fire management activities can be challenging at CUIS. If an incident requires multi-day management, NPS staff and equipment can get stretched thin. Tides can fluctuate up to nine feet daily, which makes it challenging to get equipment to the island via the park landing craft. All logistical actions need to be thoroughly thought out before implementing. It is suggested for a Logistics Section Chief of any Incident Management Team (IMT) to confer with an NPS representative on the best course of action for obtaining logistical resources. There are local vendors available that can be contracted to transport equipment and personnel via barge and ferry.

It is suggested to house and feed incident personnel on the mainland if possible. This takes a big logistic challenge off the IMT. The local area has a large variety of hotels and restaurants for employees to consider. A ferry can be contracted to transport personnel to and from the mainland and have radar capability to operate at night so shift production is not affected. This will require a small fleet of rental vans to transport personnel from the mainland dock to hotels and restaurants.

Delegation of Authority

When an IMT is mobilized to a CUIS incident, the Zone FMO will coordinate the transition of authority for suppression actions during the team's time on the incident. The seashore Superintendent will execute a written limited delegation of authority to the incoming incident commander, which will be included in the briefing package provided to the incoming IMT team. The Superintendent will also conduct the eventual close-out and evaluation of the team.

When additional resources are required to manage wildfires, the IC will order resources through the Duty Officer and the Georgia Interagency Coordination Center. A unified command structure will be considered for all extended multijurisdictional incidents.

Extended attack responsibilities of the Superintendent include, but are not limited to:

- Guidance to help NPS fire managers/superintendents determine the need for park closure or evacuations (see guidance in RM-18, Chapter 5, Exhibit 2). If the Park needs to be evacuated or closed due to fire management activities, the procedures can be found in the Chief Rangers Office. During any evacuation event Park Rangers would take the lead role in evacuation operations.
- The Superintendent will work with the Zone FMO to complete a risk assessment in WFDSS to help determine the incident complexity level and recommended organization. Only the Superintendent or designee is authorized to approve ordering an Incident Management Team (IMT).
- The Superintendent may consider and re-prioritize park staff duties to provide support for the incident.
- The Superintendent will need to prepare a Delegation of Authority (DOA) for the incoming or already present IC, see example in Red Book Appendix G.
- The Superintendent will support the Zone FMO to brief the incoming incident management team (see Red Book Appendix D).
- The Superintendent will assign Resource Advisor(s) and an Agency Representative to provide regular interaction with the IMT or organization.
- The Superintendent or designated Agency Representative should plan to meet with the IMT on a daily basis, often at evening planning meetings for the next day shift, to determine progress, issues, and develop a relationship with this group that is working for him/her.
- When the team completes their assignment on the incident, the Superintendent should meet with the IC and evaluate the performance of the IMT (see Red Book Appendix I).
- The NPS requires the park to enter extended attack incidents into WFDSS (see Section 3.1.2).

Equipment and Land Use Agreements will be executed prior to using any non-federal equipment or occupying non-federal properties used to manage incidents. Agreements must be negotiated by a warranted Contracting Officer (CO) and follow requirements contained in the Interagency Incident Business Management Handbook Chapter 20. (National Wildfire Coordinating Group (NWCG), 2018).

3.1.1.4 Minimum Impact Strategy and Tactics (MIST)

NPS policy requires fire managers and firefighters to select management tactics commensurate with a wildland fire's existing or potential behavior but, which cause as little impact to natural and cultural resources as possible. All wildland fire activities at CUIS will therefore incorporate the MIST guidelines, to the greatest extent feasible and appropriate for the given situation.

MIST guidelines for CUIS are listed in Appendix G.

The Zone FMO and the Chief of Resource Management will provide input in the selection and implementation of minimum impact suppression tactics for any wildland fires that go into extended attack. Additional guidance on NPS Minimum Impact Strategy and Tactics (MIST) can be found in RM - 18, Managing Wildland Fire, Chapter 2, Exhibit 1.

3.1.2 Wildland Fire Decision Support System (WFDSS)

The Wildland Fire Decision Support System (WFDSS) is an interagency, web-based application that helps agency administrators and fire managers make risk informed decisions for all types of wildland fires, regardless of complexity. WFDSS integrates various applications used to manage incidents into a single risk-informed, collaborative system to streamline the analysis and reporting process. WFDSS is the primary decision support documentation platform for all NPS wildfires. Current direction on WFDSS pertaining to the NPS can be found in the Interagency Standards for Fire and Fire Aviation Operations (Red Book) in Chapters 3 and 11.

Incident decisions must be consistent with applicable fire-related protection and resource management objectives and requirements from land and resource management plans and compliance documents and are incorporated into WFDSS as Strategic Objectives (SOs) and Management Requirements (MRs) with the associated spatial data. The Interagency Spatial Fire Planning service is the ArcGIS Online Web Application used to manage fire planning data (both spatial and language). Units are encouraged to upload and review data prior to fire season.

CUIS Wildland Fire Decision Support System (WFDSS) Strategic Assessment Objectives and Requirements are listed below and have been uploaded to the Spatial Fire Planning Service for use in WFDSS.

WFDSS Strategic Assessment Category	Objective / Requirement Language
All FMUs Protection Objective	Initial action on all human-caused wildfires will be to suppress the fire at the lowest cost with the fewest negative consequences with respect to firefighter and public safety.
All FMUs Incident Requirements	Prioritize the safety and protection of firefighters, staff, and the public in all fire activities at all management and operational levels. Safety takes precedence over infrastructure and resource loss.
	Protect natural and cultural resources, including threatened and endangered species and their habitat from unwanted fire effects, damage or loss by fire or inadvertent firefighter actions.

	Protect values-at-risk, including historic buildings, landscape features, and ruins by identifying and utilizing appropriate landscape features including anchor points, fuel modifications, road systems, and natural barriers where and when possible. Focus suppression efforts at the interface with infrastructure and irreplaceable natural and cultural resources
	Facilitate positive working relationships and communications with park staff, fire management organizations, cooperators, and the public. This includes federally recognized Tribes that have historical, cultural, economic or other interests in the proposed action or its effects
	Superintendent approval is required prior to the use of vehicles outside of established roads.
	The use of heavy equipment requires Superintendent approval and will be restricted except in extreme situations to protect life and property.
	Superintendent approval is required prior to the use of retardant. Water or type A (biodegradable) foam will be used in lieu of fire retardant whenever possible. If retardant must be used, a non-fugitive type will be chosen, and bodies of water avoided.
	During all fire management activities, MIST guidelines will be incorporated to the greatest extent feasible and appropriate, employing methods least damaging to park resources for the given situation.
FMU1 Incident Requirement	Manage wildfires ignited by natural causes (e.g., lightning) using selected strategies to achieve resource objectives. Suppress human-caused wildfires to protect the public, infrastructure, private property, threatened and endangered species, and park natural and cultural resources.
FMU2 Incident Requirement	Suppress wildfires, regardless of ignition source, to protect the public, infrastructure, private property, threatened and endangered species, and park natural and cultural resources. Limit the size of wildfires to the smallest extent possible, while providing for firefighter and public safety.
FMU3 Incident Requirement	Prevent spread of wildfire to Little Cumberland Island from NPS lands. Assist Georgia Forestry Commission and Camden County Fire Rescue suppression of wildfires on Little Cumberland Island in accordance with cooperative agreements.

3.2 Fuel Treatments

3.2.1 Fuels Management Goals and Objectives

Fuels management will be used as a primary tool to meet goals and objectives of reducing hazardous fuels, restoring fire back to its historical range, providing fire adapted ecosystems the ecological benefits of fire and to meet the goals and objectives of this FMP. The Zone FMO will oversee and coordinate planning, design, and implementation of all fuel treatments on NPS lands. Specific treatment goals and objectives will be included in the relevant prescribed fire or mechanical fuels treatment plan.

3.2.2 Fuels Treatments

The CUIS fuels management program will adhere to fire management policies to achieve resource management and fire management goals. CUIS has developed and annually updates a multi-year fuels treatment plan (Appendix F). This fuels treatment plan helps managers plan for future needs such as funding requests, resource survey requirements, pre-implementation work, developing implementation plans, etc. Although the multi-year plan lays out a treatment plan, situations such as funding availability, environmental conditions, and changing priorities determined by the local, regional, and national fire management offices may require treatments to shift. Therefore, the fuels treatment schedule will remain dynamic.

Each fuels project will have a treatment plan whether prescribed fire or mechanical to assist with guiding all project staff for successful implementation of the project. The format of these specific plans will follow current policy. All plans will include maps of the project area.

Fuels treatment plans are reviewed by an established Interdisciplinary Team (IDT) consisting of the following positions:

- FMO
- Superintendent
- Deputy Superintendent
- Chief Ranger
- Chief of Resource Management
- Wildlife Biologist
- Cultural Resources Specialist

Other agencies and stakeholders that may be consulted in fuels treatments plans include:

- Georgia Forestry Commission
- Camden County Fire and Rescue
- Private property owners

- Reserved estate shareholders

The IDT will review and comment on the draft treatment plan and submit comments back to the individual who prepared the draft plan for clarification/resolution. The plans will then require signatures by the preparer of the Burn Plan, FMO, Superintendent, and by a technical reviewer (for Prescribed Burn Plans).

Identify Candidate Projects

The Zone FMO or fire staff will analyze and identify potential projects with input from the Chief of Resource Management and Wildlife Biologist. Fire staff will use information obtained for individual structure assessments, fuel loading analysis, GIS information, ignition potential, and proximity to historical starts to identify prescribed fire and non-fire projects in the WUI. This information will also assist with the need to create and maintain fuel break fuels projects within the park.

Research on historical fire regimes, condition class, fuel loadings, cultural landscape locations, and analysis of spatial data will assist with identifying larger prescribed fire projects that will assist with restoring fire back into the ecosystem of the park and maintain cultural landscapes.

Projects in the WUI and any fuel breaks that are created will need to be maintained on a schedule that will be included in the multi-year fuels treatment plan.

Project Prioritization Criteria

The Zone FMO or fire staff will submit annual funding requests for the upcoming fiscal year into the system of record for regional approval. Once projects have been submitted, fire managers must then submit a prioritized list of treatment and activities to the Regional office. Elements that may weigh into the fuels request prioritization process conducted by CUIS fire staff may include the following:

- Proximity to values at risk
- Type and amount of compliance activities completed or required to be completed
- Fire regime
- Extent of departure from natural fire processes
- Extent of departure from defined desired conditions
- Fire versus non-fire treatments
- Fuel loading
- Project sequence
- Maintenance cycle
- Cost of project
- Availability of funding

- Coordination with adjacent land managers
- Chances of success for completion

Debris burning may be used as described in RM-18, Chapter 7.

3.2.3 General Fuels Management Implementation Procedures

Guidance

Prescribed fire planning and implementation will be in accordance with RM-18, Chapter 7, Fuels Management. Each fuels treatment project will require an implementation plan (e.g., burn plans and non-fire fuel treatment plans). These plans will be developed by FMO or fire staff. All prescribed fire plans will have a technical review. If the plan being developed is a burn plan, all policies and regulations will be adhered to as stated in the NWCG Standards for Prescribed Fire Planning and Implementation (NWCG PMS 484).

Annual Actions

CUIS will review annually the multi-year treatment plan and determine the feasibility of treating identified areas analyzing compliance, fuel conditions, unit prep work needed, weather patterns, availability of resources, and budgetary restraints. It will also determine if planned goals can still be met in current conditions. If conditions are in alignment and all constraints are met, then the treatment plan will be implemented. The FMO or others in the fire staff will coordinate all prescribed fire actions with either regional NPS assets or a cooperating agency to assist with preparation work and implement needed actions.

Implementation Standards

Activities proposed in the FMP will be planned and implemented in accordance with RM-18, Chapter 7, Fuels Management, and the Interagency Standards for Fire and Fire Aviation Operations. The responsibility for implementing the prescribed fire program and meeting all required implementation standards lies with the FMO or delegated burn boss. All prescribed fires at CUIS will be implemented under the supervision of a Prescribed Fire Burn Boss who is qualified under requirements of the NWCG Wildland and Prescribed Fire Qualifications System Guide. All prescribed fires will be staffed by certified personnel in positions for which they are qualified. The burn boss will determine the number and types of positions for prescribed fire operations based on an approved burn plan in conjunction with local fire staff.

Prior to implementation of a prescribed fire project (other than pile burns), the FMO will ensure that a press release is sent out at least 48 hours before possible implementation. This press release is intended to provide information to internal and external cooperators and stakeholders of goals and objectives, potential impacts, or concerns created by the forthcoming project. Information provided will cover goals and objectives, anticipated date and/or duration, project location, and mitigation measures, if any, identified to reduce impacts or concerns to cooperators. In addition to the press release, the Prescribed Fire Burn Boss or FMO will host a pre-burn meeting with members of the prescribed fire project's organization to discuss needs and site-specific tactics. A daily site-specific

briefing will also be conducted for all project participants. This briefing will follow the briefing checklist found with the project plan or the checklist found on the Incident Response Pocket Guide.

Planning & Reporting Requirements

Details outlining planning and reporting requirements, timelines for declarations, and notification list for escaped fires will be detailed within each prescribed fire burn plan and will follow guidance stated in RM-18, Chapter 4, Wildland Fire Operational Guidance; Interagency Standards for Fire and Aviation Operations; and NWCG Standards for Prescribed Fire Planning and Implementation.

All documentation from fire and non-fire treatments, including implementation plans, unit logs, weather forecasts, maps, finance information, monitoring data, photo records, and incident action plans, will be collected and filed in a project folder and located in the office of the FMO. All documentation requirements listed in the NWCG Standards for Prescribed Fire Planning and Implementation will be followed.

The Interior Fuels and Post-Fire Reporting System (IFPRS) is the current fuels treatment and activity recording database and is used by the NPS to both request funding and report accomplishments. Funding is requested on a fiscal year basis. Efforts will be made to submit and prioritize requests by collaborating with the Chief of Resource Management. Support for natural and cultural resource survey activities will also be requested and recorded in the NPS system of record. Approval of these requests is on a case-by-case basis and is subject to approval by the Interior Region 2 Deputy FMO.

At the completion of each planned project, the NPS system of record will be updated to reflect acreage treated and costs. The close-out of each project is the responsibility of the FMO and designated Prescribed Fire Burn Boss.

Monitoring

Refer to Section 4.1 of this FMP for information on the monitoring program at CUIS.

Historical Treatment Map

CUIS does not currently have a dedicated GIS specialist. The FMO will seek to create an historical treatment map. IR2 employs a fire GIS specialist that will receive any treatment shape files and therefore have a record to assist developing an historical treatment map.

3.2.4 Prescribed Fire Treatments

Guidance

Prescribed fire planning and implementation will be in accordance with Chapter 7 of RM-18, the Interagency Standards for Fire and Fire Aviation Operations, and the NWCG Standards for Prescribed Fire Planning and Implementation.

Prescribed fires are defined as all fires on park lands that are management ignited and have specific objectives. Prescribed fire is planned, scheduled, organized, and implemented

according to a rigorous protocol based on policy, the purpose of which is the safe and efficient accomplishment.

The overall scope of the prescribed fire program at CUIS includes:

- The reduction of hazardous fuels accumulations
- The utilization of fire as a tool to accomplish ecological and protection objectives
- The utilization of fire as a tool to maintain cultural landscapes

The structure and composition of native plant communities have been altered over the past century in many upland areas of the park. Restoration of these systems through the reintroduction of historic fire regimes, while also protecting life and park resources, will require a significant investment in time to achieve.

The goals of the prescribed fire program are to: decrease risks to life, safety, property, and resources from future wildfires; hazard fuel reduction; restore fire in fire adapted ecosystems; reintroduce fire as an ecological process; mimic natural fire events; maintain cultural landscapes; and reduce negative wildfire impacts to historic structures, archeological sites and sensitive natural resources.

NPS Wildland Fire Management Policy RM-18 directs the park to ensure that provisions for interagency and intra-agency pre-burn coordination are implemented, including, when applicable, public involvement and burn day notification to appropriate individuals, agencies, and the public. Specific coordination actions are addressed within each prescribed fire burn plan and in accordance with Elements 11 and 12 of the NWCG Standards for Prescribed Fire Planning and Implementation. When planning for prescribed fire and fuels management projects, coordination efforts may begin years before project implementation. The following coordination activities should be considered when planning prescribed fire projects:

- Coordinate planning and mitigation actions with specialists from the CUIS Resource Management Division according to location, treatment objectives, and protection objectives for each project
- Coordinate planned public safety activities with CUIS law enforcement personnel
- Coordinate with affected private property owners, reserved estate owners, and cooperators
- Coordinate with external park regulators as the project dictates

Treatment Review

Prescribed fire treatments involve accomplishing resource and protection objectives while providing for safety first. The best means by which objective success can be measured is through a disciplined and rigorous program of monitoring. Monitoring is used to measure treatment success for vegetation and fuel objectives, promote program improvements and adaptive management, and identify any issues before they become troublesome. Therefore, each project plan involving the use of prescribed fire will contain monitoring guidance that

details the immediate, short-term, and long-term information necessary to adequately quantify if goals and objectives are being met. Evaluating monitoring data is a joint responsibility shared by CUIS Fire Staff, CUIS Resource Management Staff, and Regional Fire Ecologist. More guidance can be found in Section 4.1 of this FMP.

Every prescribed fire treatment will have a documented After Action Review (AAR) that consists of all staff that assisted with implementation of the project. AARs are a proven way of discussing what went right, wrong, or what can be done better in the future. Guidance for AAR's can be found in the IRPG.

Prior to implementing any non-fire treatments, reviews of any past projects should be considered when preparing and implementing new projects. This use of adaptive management helps incorporate lessons learned from past projects, new knowledge, modernization, and the best available science into each future project.

Non-Fire Fuel Treatments

Non-fire fuels treatment will use the following methods to achieve the desired fuel load reductions, fuel breaks, and defensible space:

- mowing
- bush hogging
- hand tools
- chainsaw work
- mulching/grinding machines (mastication)
- mechanized shears
- chemical use post-treatment

Note: The above list is not all inclusive, and other methods may be used depending on the need or as they are tested and become available.

Guidance

The planning and implementation of non-fire fuels management projects will be in accordance with RM-18, Chapter 7, Fuels Management. Thinning standards (accomplished by manual or mechanical means) for WUI are found in National Fire Protection Association (NFPA) Codes, Chapter 4, Assessing Wildland Fire Hazards in the Structure Ignition Zone (www.nfpa.org). Additional guidelines can be found in the International Wildland-Urban Interface Code (IWUIC).

- Thin up to a 12-foot canopy clearance, removing trees up to 10 inches diameter at breast height (dbh)
- Limb trees four-to-six feet above the ground to reduce ladder fuels
- Remove up to 60% of dead-and-down woody debris 3 to 12 inches dbh
- Remove up to 50% of dead-and-down woody debris > 12 inches dbh

- Flush-cut all stumps as low to the ground as possible
- Slash from thinning operations may be removed, lopped, and scattered for a future broadcast burn; piled and burned in place; or chipped on or offsite
- Modifications to degree of thinning may occur in the Historic Landmark District or adjacent to individually listed National Register of Historic Places

All treatments will follow criteria determined in the goals and objectives of each project specific treatment plan.

Planning

All non-fire fuel treatment plans require Superintendent's approval and will meet all required elements as stated in RM-18, Chapter 7.

3.2.4 Multi-year Fuels Treatment Plan

The NPS Fuels Management Program will use the Interior Fuels and Post-Fire Reporting System (IFPRS) for submitting proposed projects for approval, tracking accomplishments of the program, reporting performance, and measuring success. A three year Planned Program of Work (PPOW) can be found in that system. The Active Management (Fuels) v 2.0 | Wildland Fire Risk Assessments (arcgis.com) displays Fuels Treatments accomplished by the National Park Service's Wildland Fire Management program. A multi-year fuels treatment plan is attached as Appendix F.

Additional information can be found in RM 18, Fuels Management Chapter 7, the NWCG Standards for Prescribed Fire Planning and Implementation, and the and the Red Book, Fuels Management, Chapter 17."

The FMO will update, edit, and extend the multi-year fuels treatment schedule annually or as needed when treatments are adjusted. Revisions and updates are submitted for approval to the Superintendent. Fire regimes, fuel loading, and defined desired conditions will be considered for planning future fuels treatment projects.

Identification of future non-fire treatments will be based on protection of critical infrastructure on NPS lands (such as public safety zones, communications sites, water/utilities sites) and for creating fuels breaks.

3.2.5 Defensible Space

The NPS has adopted the International Code Council's (ICC's) International Urban-Wildland Interface Code through the parameters described in Executive Order Wildland-Urban Interface Federal Risk Mitigation. Contained in the ICC's code (sections 603 and 604) are descriptions of defensible space and maintenance requirements for urban wildland interface areas. Reference RM - 18, Fuels Management, Chapter 7 for additional information.

One of the important objectives of this FMP is to use prescribed fire and non-fire applications to create and/or maintain defensible space around seashore buildings, and to reduce hazardous fuels in and around Wildland Urban Interface (WUI) areas.

Park development/infrastructure will be protected from wildfire via defensible space. This involves trimming of vegetation around the historic structures, features, and improvements to prevent damage from wildfire.

Current information on NPS Structure Protection needs can be found at NPS Wildland Fire Risk Assessment (WFRA). According to the WFRA, there are 77 facilities within CUIS. Assessment "packets" for specific areas in the Park can be found on IR2 FMO Wildland Fire Teams site.

3.3 Preparedness

The Annual Delegation of Authority, Inter-Park Agreement, Cooperative and Interagency Agreements, Fire Danger Operating Plan, Preparedness Level Plan, Step-up/Staffing Plan and Initial Response Plan are found in the Appendix section of this FMP. Reference Red Book, Preparedness, Chapter 10 for preparedness planning requirements.

NPS policy requires that every unit with a fire management program incorporate preparedness considerations into its FMP. Preparedness requires coordination between park staff and the Atlantic Zone wildland fire management staff.

3.3.1 Preparedness Activities

Wildland fire preparedness activities include a wide range of readiness activities and program elements that are essential to dealing with wildfires and fuels treatments. CUIS preparedness activities will include:

- The Zone FMO will conduct an annual preparedness review (05Facilities, 09Individual, and 11Engines), as outlined in the Interagency Fire Readiness Review Guide. The inspection will address detection, communication, dispatch, and response capabilities. It will also serve to determine whether CUIS's current training levels, equipment, and organizational structure meet NPS and National standards.
- Obtain and update Annual Delegation of Authority from Park Superintendent. (Red Book, Chapter 3)
- Maintaining Tri-Agency Agreement with Timucuan Ecological & Historic Preserve (TIMU), Okefenokee National Wildlife Refuge, and Osceola National Forest to enable the direct ordering of their exclusive use contract helicopters and other resources.
- Maintain a 10-person cache of supplies, materials, and equipment sufficient to meet normal fire year requirements. Cache is in the Dungeness Historic District but may be moved at any time. Cache items will be inventoried and restocked as necessary prior to the advent of the fire season. Firefighter-qualified employees will be

issued initial attack gear and personal protective equipment from the cache.

- Maintain and keep in a state of readiness the Type-3 Support water tender currently located at the Nightingale well house.
- Maintain and keep in a state of readiness the Type-6 engine currently located at the Nightingale well house. Location of Type-6 engine can change due to fire danger location on the island.
- Maintain all mechanized fire equipment (pumps, chainsaws, leaf blowers) in a state of readiness throughout the fire year.
- Maintain a Bobcat 770T tracked skid steer with masticating, brush cutting, and grapple attachments. CUIS also maintains a 100 horsepower John Deer tractor with Brown's Tree Cutter attachment. The Skid Steer is staged in the equipment barn east of the Carriage House. The tractor is housed at the Nightingale Well.
- Maintain qualified staff of collateral duty fire fighters commensurate with the normal fire year workload.
- Prepare a step-up plan based upon staffing classes derived from the National Fire Danger Rating System
- Maintain fire records, weather data, maps and other associated information.
- Assure training for park fire fighters and FMO are completed and qualifications are documented.
- Offer training to park and cooperator employees in yearly refresher training and advanced wildland fire classes.
- Prepare a pre-season risk analysis.
- Prepare a Step-Up/Staffing Plan based upon staffing classes derived from the National Fire Danger Rating System.
- Maintain fire records, weather data, maps and other associated information. The Zone FMO will submit CUIS data annually, including daily situation reports during fire events, to the Georgia Interagency Coordination Center (GICC). FMO will enter fire reports into the appropriate reporting system including Wildland Fire Decision Support System (WFDSS) and Interagency Fire Occurrence Reporting Modules (InFORM). The Zone FMO will utilize other system options as appropriate to maintain data on employee qualifications, hazard fuels, fuels treatments, etc.
- Maintain communication and agreements with Georgia Forestry Commission, Camden County, Tri-Agency partners, and the National Weather Service in Jacksonville, Florida.
- Review dispatch procedures.
- Ensuring that Park staff, concessionaires, visitors, adjoining landowners, and cooperating agencies are educated about the 911 emergency fire dispatching process to ensure that detected fires are reported to park staff.

- Maintaining cooperative agreement with Georgia Forestry Commission to enable the request of GFC fixed-wing detection planes for Park fires.
- Update JHA's and maintain JHA file in FMO office.
- Agency administrator will ensure Agency Administrator Guide to Critical Incident Management (NFES 1356) is available and in a known location.
- Update incoming resource briefing packet
- Prepare a list of available firefighter-qualified personnel at the beginning of the fire season.
- Maintaining communications with Georgia Interagency Coordination Center to enable resource ordering of local Call When Needed contract fixed-wing, rotor-wing aircraft, and other resources.
- Providing a dispatch system for mobilizing park fire management resources to local and out-of-area incidents, in order to facilitate rapid and efficient mobilization.
- The FMO will maintain a list of available firefighter-qualified staff in the Interagency Resource Ordering Capability System (IROC).
- All firefighter-qualified staff will be provided approved personal protective equipment and assigned park radios.
- Meeting NPS fire readiness and suppression needs will take priority over off unit fire assignments.
- Staff will receive specific travel, transportation and incident information at the time of mobilization. Dispatch and mobilization guidelines and procedures are provided in the National Interagency Mobilization Guide and the Southern Interagency Mobilization Guide.
- Maintain the Stafford RAWS

Annual Training Needs of Fire Staff

NPS fire management training meets the criteria specified within the training curriculum standards created by the NWCG. The Zone FMO will conduct a training need analyses on a periodic basis, and coordinate training courses as appropriate. Courses identified will be based upon employee needs (as reflected in individual employee development plans), seashore fire management needs, and regional priorities. Training will be conducted on an interagency basis and be made available to local cooperators to the greatest extent possible. All firefighter-qualified NPS staff will complete an annual safety refresher training. The FMO will coordinate a minimum of one Annual Firefighter Refresher class and one Work Capacity Test per year. Cooperating agency personnel will be provided the opportunity to attend these trainings, as will other NPS personnel in the region.

The FMO will document and file all training records for any employee that maintains wildland fire qualifications at CUIS. The FMO will ensure that training and yearly experience are entered into IQCS. The FMO will ensure that all individuals that have

received annual training and are qualified in an ICS capacity will receive Incident Qualification Cards (Red Cards). Firefighter records will be kept on file in the FMO office.

Annual Equipment and Supply Readiness Procedures

CUIS maintains a cache of supplies and equipment sufficient to meet normal fire year requirements for up to ten people. The fire cache is in the Dungeness Historic District, inside the Carpenters Shed. The table below lists activities that will be performed to ensure the fire readiness of seashore personnel, supplies, and equipment, as well as the month(s) that each should be accomplished.

3.3.2 Coordination and Dispatching

Dispatching and ordering of CUIS resources is currently completed by the Georgia Interagency Coordination Center (GICC) in Gainesville, Georgia. Coordination with the Southern Area Coordination Center (SACC) is necessary for off-unit and NPS specific orders. In the event of an incident on the park, a dispatch center will be established either on the mainland or at the Captain's House on the island and it will be staffed with an initial attack dispatcher. The initial attack dispatcher will coordinate FMO/incident commander's needs with local agencies and the GICC as well as keeping a communication log. If a wildfire is reported on Little Cumberland Island FMU #3 Camden County and GFC must be notified as they are the lead agency for response to this FMU.

At the geographic level, wildland fire management dispatching and coordination for all of the Atlantic Zone and surrounding lands is the responsibility of Southern Area Coordination Center (nifc.gov) (SACC). Located in Atlanta, Georgia, and established to collaboratively manage wildland fire and other incident management activities such as natural disaster relief efforts, SACC also provides wildland fire intelligence information and predictive service products designed for purposes of supporting wildland fire and incident management decision-making at the geographic area level. Dispatch and mobilization guidelines and procedures are provided in the National Interagency Mobilization Guide and the Southern Interagency Mobilization Guide.

3.3.3 Duty Officer

The Atlantic Zone FMO will serve as the Duty Officer (DO) unless otherwise delegated. The Zone FMO is responsible for ensuring duty officer coverage during any period of predicted incident and/or mobilization activities. DO's responsibilities may be performed by any individual with a signed delegation of authority from the Superintendent. The DO may be in a location remote from the park, but will be familiar with local incident response procedures, agreements, and resources. The required duties for Zone DOs are:

- Monitor unit incident activities for compliance with NPS safety policies.
- Coordinate and set priorities for unit suppression actions and resource allocation.
- Keep the Superintendent, suppression resources, and information officers informed of the current and expected situation.
- Ensures submission of the NPS Simple Six form to notify Regional Staff and

National Staff of significant fires on or threatening NPS lands.

- Plan for and implement actions required for future needs.
- Document all decisions and actions.

DOs will provide operational oversight of these requirements as well as any specific duties assigned by fire managers through the fire operating plan. DOs will not fill any Incident Command System functions connected to any incident. In the event that the DO is required to accept an incident assignment, the FMO will ensure that another authorized DO is in place prior to the departure of the outgoing DO.

3.3.4 Prevention

Per RM-18, a prevention/mitigation plan will be required when an NPS unit experiences an average of 26 human caused fires per year over the most recent 10- year period. Based on historical data, CUIS is not required to develop a detailed wildfire prevention plan. Instead, this Section of the FMP, along with the actions described in the Preparedness Level Plan (Appendix D-2) and the Step-Up/Staffing Plan (Appendix D-3) describe the scope of preventing human-caused wildfires.

Prevention at CUIS generally consists of an orientation of visitors by an interpretive ranger before boarding the ferry to travel to the island. The briefing includes campfire policies on the island and a brief word on the daily weather and fire danger. There is fire danger material located at the Sea Camp Ranger Station to advise visitors. Seashore rangers routinely patrol and interact with the public and answer questions about fire policy at the park.

CUIS hopes to begin installing a limited number of wayside exhibits to provide visitors with a better understanding of the natural role of fire and the benefits of fuels treatments that occur in the park.

From the Superintendents Compendium, there are a number of restrictions of the use of fire on NPS lands:

CODE OF FEDERAL REGULATIONS; TITLE 36, CHAPTER 1

Compendium of Designations, Closures, Request Requirements and Other Restrictions imposed under the discretionary authority of the Superintendent

The following regulatory provisions are established for the proper management, protection, government and public use of Cumberland Island National Seashore (CUIS) under the jurisdiction of the National Park Service (NPS). These are in accordance with regulation and the delegated authority provided in Title 36, Code of Federal Regulations, Chapter 1, Parts 1 through 7, authorized by Title 54, United States Code, Chapter 1003. Unless otherwise stated, these regulatory provisions apply in addition to the requirements contained within 36 CFR, Chapter 1 and Section 7.14 Special Regulations.

Section 2.13

Regulations in this section apply regardless of land ownership. The lighting or maintaining of fires is generally prohibited, except as provided for in the following designated areas or receptacles, and under the conditions noted.

(a)(1) Open ground fires are limited to the fire rings at the Sea Camp, Stafford and Hunt Camp camping areas. Retained rights holders and private property owners may have ground fires, provided the fires are within state burning regulations; such fires are the responsibility of the land holder.

The use of open ground fires in the park is regulated to protect human life, structures and natural resources. During extreme weather conditions, open ground fires may be restricted to preclude the accidental ignition of wildfires.

On the beach, ground fires may be ignited and maintained seaward of the ocean dune below the high tide mark, but in no case less than 50 feet from a vegetated area. All ground fires are prohibited from 12:00 midnight to 6:00 AM., November 1 through April 30.

No night beach fires are allowed from May 1 through October 31.

No beach fires are permitted within 100 feet of any turtle nest closure or within posted bird or turtle nest protection areas. All fires must be no greater than 3 feet in diameter. Treated wood products and wood containing nails and other foreign material will not be used for fire construction. Disposal of glass, plastics and cans in fires is prohibited.

Restrictions on beach fires are necessary to protect park resources and retained rights properties from wildfires caused by building fires too close to highly flammable dune grass and/or fires not being extinguished properly. Beach fires are prohibited at night during sea turtle and shorebird nesting season to reduce disturbance and the potential for disorientation of hatchling sea turtles.

In the wilderness areas, cooking fires must be self-contained (i.e. liquid or gas fuel stoves) and leave no ashes or marks on the ground. Wood fires and charcoal fires are prohibited.

Open ground and charcoal fires in the wilderness areas produce ash/litter, raises unattended fire concerns, impacts resources from firewood gathering, and increases potential wildlife problems associated with food residue. The use of self-contained fuel stoves minimizes these issues.

(b) Fires must be extinguished according to the following conditions: All fires should be completely extinguished with no burning material remaining. If a portable barbecue grill is used, all ashes/coals must be thoroughly extinguished and cooled and then removed from the park. Fires must be attended at all times, or otherwise be extinguished.

(c) During periods of high fire danger, the Superintendent may close all or a portion of a park area to the lighting or maintaining of a fire.

S*uch a closure is intended to protect persons, property, natural and cultural resources from human-caused wildfires.*

Additional resources regarding fire prevention and education can be found in RM-18, Chapter 20, Communication and Education or at the NIFC Fire Prevention, Education, and Mitigation website.

3.3.5 Safety Program / Plan

A "Documented Occupational Safety and Health Plan," is available at CUIS Headquarters that meets the standards identified in Reference Manual 50B, National Park Service Occupational Safety and Health Program. In addition, the serious injury or death procedure is also located at CUIS Headquarters.

Agency administrators at all levels must stress that firefighter and public safety ***always*** take precedence over property and resource loss. This policy will be emphasized throughout all fire management operations at CUIS. The CUIS fire program will meet all requirements set by national policy to include the current year version of Interagency Standards for Fire and Fire Aviation Operations (Red Book), RM-18 Chapter 3, and will utilize the Incident Response Pocket Guide (IRPG) for reference. An ICS-206 Medical Plan form will be used for any wildland fire operation including projects within the park boundary.

No fire management operation will be initiated until all personnel involved have received a safety briefing describing known hazards and mitigating actions (LCES), current fire season conditions, and current and predicted fire weather and behavior. Hazards specific to the seashore include:

- Lack of safety zones throughout all FMUs.
- Dead spots in radio communication systems.
- Compatibility of Motorola and Bendix King radios.
- Time consuming emergency evacuation.
- Lack of access points.
- Unnatural fuel loadings that can be considered high to extreme.
- Volatile fuels that preclude direct attack.
- Snags and dead trees with weak root systems.
- Stinging/biting insects, ticks, alligators, and venomous snakes
- Dehydration, heat exhaustion and heat stroke.
- Boat transport.

- Wildland fire incident commanders will minimize firefighter exposure to heavy smoke.
- Seashore neighbors, visitors and residents will be notified of all fire management events that have the potential to impact them.
- The Superintendent or designee may, as a safety precaution, temporarily close parts of the seashore to the visiting public.

The NPS wildland fire training, qualification, and certification system meets or exceeds all NWCG standards. Only fully qualified employees will be assigned fire management duties, i.e. meeting NPS and NWCG qualifications as well as accepted interagency knowledge, skills and abilities for the assigned fire job (unless assigned as trainees, in which case they will be closely supervised by an individual fully qualified for the given position). All personnel (including emergency hire firefighters) engaged in fireline operations must have completed the S-130/190 class including the modules on basic firefighting, basic fire behavior, and standards for survival. The Zone FMO will coordinate annual safety refresher training for all firefighter qualified CUIS staff.

Refresher training will concentrate on local conditions and factors, NWCG Refresher Training topics of the year, the 10 Standard Fire Orders, 18 Watch Out Situations, LCES (Lookouts, Communication, Escape Routes, Safety Zones), and common denominators of tragedies and near-miss situations. NWCG courses such as Standards for Survival, Lessons Learned, and Look Up, Look Down, Look Around, meet the firefighter safety refresher training requirement. Hands-on fire shelter inspection and deployment practice ***will*** be included as part of the annual refresher. Efforts should be made to vary the training from one year to the next. The Zone FMO will ensure all pertinent employee data is entered into IQCS (or the appropriate reporting system).

All seashore fire management personnel will be equipped with approved personal protection equipment (PPE) and trained in its proper use.

Prior to and throughout all fire management field operations at the seashore, fireline supervisors will cover safety factors with incident personnel via operational briefings beforehand, and safety briefings that occur during the incident.

NPS policy requires that all personnel engaged in wildfire response and prescribed fire duties meet the physical fitness standards set by the NWCG. Physical fitness/work capacity levels will be determined by the Work Capacity Test. Descriptions of the three work capacity levels (light, moderate and arduous), as well as medical and physical fitness requirements and procedures are outlined in the Interagency Standards for Fire and Aviation Operations (current year version). The Zone FMO or designee will annually administer (or coordinate the administration of) the pack test to CUIS firefighter-qualified staff and maintain up-to-date records of employee qualifications.

Most fire management activities including suppression, prescribed fire, and fuels treatments will receive an after-action review (AAR). AARs should allow participants to offer honest evaluation of events of an incident without intent to point fingers or to place blame on an individual. The purpose of the AAR should be to learn things that went well and identify areas where proficiencies can be improved. A format for an AAR to follow can be found in the front of the Incident Response Pocket Guide (IRPG).

CUIS will follow work/rest, incident review, critical stress debriefing, and serious accident guidelines that are found in the Interagency Standards for Fire and Fire Aviation Operations.

If a person assigned to an incident at CUIS decides that a safety concern cannot be mitigated, they have the right to refuse the assignment. A guideline on how to properly refuse risk can be found in the Incident Response Pocket Guide. Incident managers will take refusal seriously and actively attempt to mitigate the safety hazard or change tactics.

In terms of public and visitor safety, under no circumstances will an individual be permitted near a wildland fire at CUIS without the required personal protective equipment (PPE). Members of the press or non-firefighters may be allowed in the vicinity of a fire only if they are determined to meet the standards established in the Interagency Standard for Fire and Fire Aviation Operation for escorted visits.

In the case of a wildland fire or during times of extraordinary fire danger the CUIS superintendent or designee may, as a safety precaution, temporarily close parts of the seashore to the visiting public. Every effort will be made to inform the general public of the situation and evacuate the area if necessary. If a fire threatens to escape seashore boundaries, adjacent authorities and landowners will be given as much advance warning as possible so that they may take appropriate action.

Evacuation of park staff, island residents, and members of the public will be made by incident personnel. NPS staff not assigned to the incident, Georgia Forestry Commission, or Camden County officials may assist in evacuation notifications. Notifications of island residents will be made by a visit to their residence or a phone call. All possible means to notify residents absent from the island will be attempted. Evacuation locations will vary with conditions of the emerging incident, with the first priority to get people to a safe location and the second priority getting them off the island.

While smoke on roads within the seashore boundary is a concern, smoke impacts to the Intracoastal Waterway are a major concern. Fire managers will work with the U.S. Coast Guard station in Brunswick, Georgia to inform them of potential impacts to the waterway. Consideration of impacts on the waterway will be identified in fire management actions.

Public hazards post incident includes snags and falling trees from compromised roots. Attempts will be made to mitigate snag hazards that may affect roadways and trails before closing out an incident. It is still possible that hazards will exist well after the incident and seashore staff will monitor road and trail systems to identify and mitigate hazards.

3.3.6 Job Hazard Analysis

JHA's are maintained by the Park Safety Manager and will be reviewed by all fire employees annually. The NPS will annually review and update JHAs and keep a database for reference. Known jobs that fire management activities may conduct require a JHA, which will assist with a safety orientation before any hazardous work is completed. JHA's are located on the Park Safety Sharepoint. CUIS/FOFR SAFETY SharePoint - Home

3.4 Post-Fire Programs and Response

CUIS is responsible for taking prompt action after a wildfire to minimize threats to life or property, and to prevent unacceptable degradation to natural and cultural resources. Chapter

19 of RM-18 provides policy and direction for all activities associated with post-fire programs in the NPS.

Natural recovery after a wildfire is preferable if immediate stabilization and rehabilitation needs have been met or are assessed to not be necessary. Damages resulting from wildfires are addressed through four activities:

1. **Suppression Repair**: the intent is to repair suppression damages and is the responsibility of the IC. This activity is paid for from wildfire suppression funding.
2. **Emergency Stabilization**: the intent is to protect life and property and critical resource values and is the responsibility of the Superintendent. This activity is paid for from Emergency Stabilization (ES) funding.
3. **Rehabilitation**: the intent is to repair wildfire damaged lands that are unlikely to recover naturally to management approved conditions, or to repair or replace minor facilities damaged by wildfire. This activity is paid for from Burned Area Rehabilitation (BAR) funds. The Superintendent is responsible for management of rehabilitation projects.
4. **Restoration**: the intent is to continue the rehabilitation efforts started in the BAR process beyond the time period limitation set by the department. This activity is paid for from regular non-fire program funds. The Superintendent is responsible for management of restoration projects.

RM - 18, Post Wildfire Programs, Chapter 18 and the Red Book, Incident Management and Response, Chapter 11 provide direction on current processes and timeframes.

Southeast Region Standard Operating Procedures for developing and submitting post-fire ES, BAR and Restoration requests can be obtained by contacting the National Park Service Interior Region 2 Regional Fire Ecologist.

3.5 Air Quality/Smoke Management

3.5.1 Air Quality Issues

CUIS is designated a Class II air shed under the 1977 amendments to the Clean Air Act. Under this designation, modest increases in air pollution are allowed beyond baseline levels for particulate matter, sulfur dioxide, nitrogen and nitrogen dioxide, provided that the national ambient air quality standards, established by the Environmental Protection Agency (EPA), are not exceeded. Sources of air pollutants in the park vicinity include a two paper products plants in Fernandina Beach, Florida, which produces odor and atmospheric particles; and nearby Interstate 95, a major route for north-south traffic.

3.5.2 Smoke Management Activities

As a chemical air pollutant, smoke is subject to scrutiny under federal legislation established by the EPA. In addition to posing health risks, smoke can reduce visibility many miles away from its source, affecting the safe operation of automobiles and aircraft

and diminishing the quality of scenic views.

Smoke as a result of fire management activities will be closely planned and monitored. Prescribed fire plans will include a preferred wind direction and a smoke monitoring section. All prescribed fires and managed wildfires will have a Fire Effects Monitor Officer (FEMO) in the organization with an assigned duty of monitoring smoke production and dispersal. A public information statement will be released before any prescribed fire and as soon as possible after a naturally caused wildfire is approved for management to distribute information to the public about smoke potential. During the implementation of prescribed fires, if smoke production becomes unacceptable, ignitions will cease and mop up will occur to minimize smoke concerns.

Smoke sensitive areas of concern include:

- I-95
- City of Saint Mary's, Georgia
- City of Fernandina Beach, Florida
- Kings Bay Naval Submarine Base
- Intracoastal Waterway
- Fort Clinch State Park

CUIS will work with the U.S. Coast Guard and Kings Bay Naval Base on smoke concerns in the Intracoastal Waterway and any impacts to the Base. Signs may be put up on roadways on both mainland and island roads warning of smoke potential. If smoke impacts island residents, FMO or IC will coordinate with PIO or law enforcement to get information to residents.

CUIS will adhere to Georgia state regulations and the Georgia 2025 Smoke Management Plan regarding burn permitting and smoke management regulations. CUIS currently requests a burn permit for prescribed fires from the Camden Unit of GFC. The burn permit addresses smoke concerns. The IC and Burn Boss will also request a spot weather forecast from the National Weather Service in Jacksonville. The spot weather webpage shows any other burns or wildfires that are in the forecasting area and enables fire managers to see where other agencies may be producing smoke and determine if the impacts from all projects may be adverse. Additional Smoke Management information can be found in RM 18, Air Quality and Smoke Management, Chapter 9.

3.6 Data and Records Management

3.6.1 Wildfire Reporting

Wildland fire reporting will be managed in accordance with the requirements listed in RM - 18, Information and Technology Management, Chapter 19.

The FMO is responsible for ensuring accuracy and timeliness of fire reports entered

InFORM and WFDSS. Every wildfire, support action, and prescribed fire requires a report. Temporary and permanent records related to InFORM and WFDSS are retained and archived in compliance with current guidance and policies and are stored in the FMO office or in the museum if files are large. FMO should review the records annually to determine what can be removed and what must be retained. All records will be archived on a five-year basis.

CUIS does not currently have a dedicated Geographic Information System (GIS) Specialist. Therefore, the FMO is responsible for data and records management of GIS layers including fire history (point locations and perimeters for both wildfire and prescribed fire), burn severity, and manual/mechanical fuels treatments. Metadata related to all GIS layers are required to meet standards identified by the Federal Geographic Data Committee (www.fgdc.gov/metadata).

In order to facilitate timely and accurate data transfer from field personnel to the database, the following procedures will be followed by all individuals collecting data:

- A GIS specialist should be ordered for any fire that an IMT is being ordered.
- The FMO gathers ignition locations for wildfires from WFDSS. Incident Commanders and FMOs need to ensure that accurate information is loaded into WFDSS.
- All wildfires need to have the location of the fire's origin located and documented.
- Fires with a perimeter less than 0.25 acres can be recorded as a point, fires greater than 0.25 acres need to have a mapped perimeter. Fires that exhibit measurable growth should be mapped periodically, this will be accomplished by the most practical means, e.g., aerial perimeter mapping vs. ground perimeter mapping.
- GPS devices should be set to: WGS84, Latitude/Longitude (degrees decimal minutes).
- Perimeters and information related to manual/mechanical treatments, including prescribed fire boundary preparation and WUI thinning projects, will be recorded to the database.

3.6.2 Geospatial Data Management for Wildland Fire Projects

All GIS Standard Operating Procedures will be followed. Information and guidance can be found on the NWCG Geospatial Subcommittee website. The park staff will coordinate with the Atlantic Zone staff to ensure that GIS Standard Operating Procedures are understood and followed.

3.6.3 Wildland Fire Qualifications Management

The Atlantic Zone FMO will enter and maintain all park staff Incident Qualification and Certification System (IQCS) records for fire management. NPS staff will provide documentation of completed training courses to the Zone FMO. The Zone FMO will authorize task books and sign all Incident Qualifications Cards (Red Cards). Red Cards

may also be issued following the issuance or completion of position task books in order to reflect changes to employee qualifications.

IQCS is the database used for tracking NPS wildland firefighter's qualifications, certifications, and training. The FMO is responsible for establishing and coordinating new accounts and updating and maintaining existing accounts for CUIS personnel. New employees are required to submit IQCS New Responder Forms to have an account established.

All active individuals participating in any wildland fire training or incidents will submit an IQCS Responder Update Form at the end of each calendar year to the FMO. This form documents training attended, training instructed, medical clearance, physical fitness completion, and qualified and trainee position performed. This information is required to generate Red Cards and connect availability through IROC. All red-carded individuals will submit a fire experience record to the FMO by the beginning of November so that the FMO can coordinate updating all red-carded individuals' fire experience.

4.0 PROGRAM MONITORING AND EVALUATION

4.1 Monitoring

The CUIS Fire Management program manages wildfires, conducts prescribed burns, and utilizes machinery to meet seashore objectives for management of hazard fuels and vegetation. The NPS uses monitoring to assess the effectiveness of these activities, identify undesirable trends, and to provide data that supports adaptive management. NPS Reference Manual 18 (2019) provides policy guidance for all fire monitoring activities, and states the following:

> "*All NPS units applying prescribed fire, managing wildfire for multiple benefits, or altering the arrangement of wildland fuels for the purpose of modifying fire behavior must prepare a fire monitoring plan*."

Additionally, the 2015 Finding of No Significant Impact for the Environmental Assessment of the updated FMP identifies monitoring as one of the mitigation measures, and states that the Fire and Resource Management staffs will design systematic monitoring systems to measure the effects of fuels management activities.

CUIS and the Atlantic Fire Management Zone lack a dedicated Fire Ecologist and Fire Effects Monitoring Staff, so a fire effects monitoring program was established at the Seashore in 2014 by the Mississippi River Zone Fire Ecology program. A monitoring plan detailing these efforts was published in 2021 (CUIS Fire Monitoring Plan, 2021). The early monitoring efforts utilized the NPS Fire Monitoring Handbook (2003), which is the NPS nationwide standard for monitoring protocols. The preliminary data collected during 2014-2016 can be found in the NPS Datastore (MS River Zone Fire Effects Data - 2016).

In 2023, responsibility for the CUIS fire monitoring program shifted from the Mississippi River Zone program to the IR2 Regional Fire Ecologist. To better address the challenges of long-term ecological monitoring at the Seashore, the fire monitoring program is being redesigned to incorporate greater partnership with the NPS Southeast Coast Inventory and Monitoring program, which is currently based at CUIS. This program is under development and the Fire Monitoring Plan will be revised to reflect these changes.

4.2 Research

The incorporation of scientific research findings into planning, treatment objectives, and management actions is critical to the effectiveness and development of the fire management program. Significant research has already been conducted on the Seashore, and some of this is cited elsewhere in this FMP to describe the role of fire on the island. Additional research using dendrochronology to provide evidence of historical fire regimes has been funded by the NPS Fuels Reserve Research Fund and that work is being conducted by the University of Missouri.

Another research item that has been identified is the need for specific vegetation objectives for CUIS. Specific targets or desired future conditions are needed for management activities to meet maintenance targets for this park. Other important research that affects fire management can be found referenced in the CUIS FMP EA 2013. See RM - 18, Fire Research, Chapter 17 for more information related to research.

4.3 Evaluations, Reviews, and Updates

4.4.1 Fire Program Review

The CUIS wildland fire program is evaluated annually. A formal program review has not been conducted, but may occur if park, regional or national leadership request a review. The NPS has developed a Wildland Fire Program Review Guide that describes the review framework. For more information reference RM - 18, Evaluations, Reviews and Investigations, Chapter 16.

4.3.2 Wildland Fire Incident Review

As per NPS policy, a post-fire critique of every wildfire will be conducted. Post-fire critiques are typically completed by the Incident Commander as part of an After Action Review (AAR) using the guidelines in the Redbook but could be completed in any format. The critique will follow the guidelines in RM-18 and will cover all aspects of the incident, including safety, tactics, difficulties encountered, areas needing improvement, and whether specified objectives were met. The information gathered from these critiques will be used to continually improve the effectiveness and efficiency of the fire management program.

For incidents lasting no more than one burning period, a critique will occur as quickly as practical upon completion of control and mop-up and will involve as many personnel who participated in the incident as possible. Any special concerns or problems identified during the critique will be relayed to the Zone FMO by the incident commander or burn

boss.

Any incident that results in human entrapment, serious injury, fatalities, or a near-miss will be investigated and reviewed, with appropriate administrative action taken based upon investigation results. The Regional FMO may conduct an in-depth review of wildfires involving an Incident Management Team. Additionally, the park Superintendent may request a regional-level review of any incident in which:

- The fire crosses NPS boundaries into another jurisdiction without the approval of the adjacent landowner or agency.
- Significant property damage occurs.
- Controversy involving another agency occurs.

A national level review may be conducted for any fire that involves Service-wide or national issues, including:

- Significant adverse media or political interest.
- Multi-regional resource response.
- A substantial loss of equipment or property.
- A fatality, or multiple, serious fire-related injuries (three or more personnel). This is in addition to the required serious accident investigation outlined in RM-18.
- Any other fires that the Associate Director, Visitor and Resource Protection wants reviewed.

All wildland fires and fire-related incidents will be reviewed in accordance with RM-18 Chapter 17 and the Redbook.

4.3.3 Annual Fire Management Plan Review and Update

CUIS will follow the FMP Regional Review Process outlined in Reference Manual 18, Fire Management Plans, Chapter 4 (2023), Sections 3.0 and 3.1. The FMP review will:

- Ensure all NPS FMPs follow the 2014 DOI Framework.
- Ensure the FMP and supporting environmental compliance documents have valid hand or certified electronic signatures.
- Ensure the fire management plan reflects the current Interagency Standards for Fire and Fire Aviation Operations and Reference Manual 18, to include current terminology and policy.
- Ensure the FMP reflects the current fire program organization with current zone / park and regional contact information.
- Ensure all required appendices to the FMP as described in Chapter 5, Preparedness, Reference Manual 18 and the Interagency Standards for Fire and Fire Aviation Operations Chapter 3 and Chapter 10 are included, updated and posted to the SharePoint site.

The steps for that process are:

1. Park/Zone FMOs will update information in the FMP and required appendices and verify current signed supporting NEPA documentation.
2. Park/Zone FMO will provide the updated FMP and supporting NEPA documentation to the Regional or Zone Fire Planner for review, following regional established deadlines.
3. Regional/Zone Fire Planner will review the FMP and required appendices to ensure alignment with RM-18 and Interagency Standards for Fire and Fire Aviation Operations.
4. Regional/Zone Fire Planner will note and date the FMP has been reviewed on the SharePoint site indicating a review has been completed and the documents are updated and align with current policy.
5. Park/Zone FMO and Park Superintendent will then sign and date the front cover of the FMP. The signature line must include the name, title, and location and must have a hand or electronic pdf signature. Other reviewers (i.e., natural or cultural specialists) may be added at the discretion of the park or region but are not required.
6. Park/Zone FMO will send the signed FMP, with the required appendices and supporting NEPA documents to Regional/Zone Fire Planner for uploading to the NPS Wildland Fire Management Plan SharePoint site.

NPS staff at CUIS will work with the Atlantic Zone Fire Planner to ensure that the annual updates are in accordance with the latest direction contained in the Fire Management Plan Regional Review Process outlined in Reference Manual 18, Fire Management Plans, Chapter 4 (2023), Sections 3.0 and 3.1. Contact the Deputy Regional FMO for region specific deadlines and protocols.

5.0 NWCG Glossary

The National Wildfire Coordinating Group glossary of wildland fire terminology can be found at NWCG Glossary. The list of pertinent fire management definitions may change over time as new definitions are added and obsolete definitions are replaced. The National Wildfire Coordinating Group maintains a current list of acceptable terms with their definitions on the NWCG Glossary of Wildland Fire website.

6.0 References Cited or Consulted:

Bellis, VJ 1995. Ecology of Maritime Forests of the Southern Atlantic Coasts: A Community Profile. Biol. Rep 30. USDOI, National Biological Service, Washington D.C.

Frost, C. C. (2011). Presettlement Vegetation and Natural Fire Regimes of Cumberland Island National Seashore, Georgia. National Park Service.

Hillestad, H.O, et al., 1975. The Ecology of the Cumberland Island National Seashore, Camden County, Georgia. [Unpublished] Technical Report Series, no. 75–5; pp. 23–64. Georgia Marine Science Center, University System of Georgia. Skidaway Island, Georgia.

Monahan WB, and NA Fisichelli. 2014. Climate exposure of US national parks in a new era of change. Recent Climate Change Exposure of Cumberland Island National Seashore. PLoS ONE 9(7): e101302. doi:10.1371/journal.pone.0101302.

NIFC, 2023. Interagency Standards for Fire and Fire Aviation Operations (Red Book)

NWCG, 2022. Incident Response Pocket Guide (IRPG)

Pyne, S. J. 1983, Indian Fires: The Fire Practices of North American Indians Transformed Large Areas from Forest to Grassland. *Natural History* 92:6, 8, 10-11.

Turner, S. 1983. The Fire History of Cumberland Island National Seashore 1900-1983. National Park Service Cooperative Unit CPSU Technical Report 7, (University of Georgia), 113

Turner, M. G. 1985. Effects of Feral Horse Grazing, Clipping, Trampling and a Late Winter Burn on a Salt Marsh, Cumberland Island National Seashore, Georgia. Bulletin of the Ecological Society of America 66:285 [abstract only].

U.S. Department of Agriculture, Forest Service. 2000. Managing the Impact of Wildfires on Communities and the Environment, and Protecting People and Sustaining Resources in Fire-Adapted Ecosystems—A Cohesive Strategy. The Forest Service Management Response to the General Accounting Office Report GAO/RCED-99-65.

USDA, Forest Service. 1993. Minimum Impact Suppression Tactics. Northern Region

U.S. Department of the Interior, National Park Service. 1984. General Management Plan, Cumberland Island National Seashore.

USDI, National Park Service. 2003. Fire Monitoring Handbook. Boise (ID): Fire Management Program Center, NIFC. 274p.

USDI, National Park Service. 1994. Resource Management Plan, Cumberland Island National Seashore.

USDI, National Park Service. 2008. Director's Order #18: Wildland Fire Management.

USDI, National Park Service. 2019. Reference Manual #18: Wildland Fire Management.

USDI, National Park Service. (2003). Fire Monitoring Handbook. Boise, ID: National Park Service, Fire Management Program Center, National Interagency Fire Center.

USDI, National Park Service. (2006). Management Policies. Washington D.C.: Office of Policy.

USDI, National Park Service. (2019). Reference Manual 18: Wildland Fire Management. Boise, ID: National Park Service, Division of Fire and Aviation.

USDI, National Park Service. (2014). Cumberland Island Fire Monitoring Plan. Tupelo, MS: National Park Service, Barrens to Bayous Fire Monitoring Network.

USDI & USDA. (2024). Interagency Standards for Fire and Fire Aviation Operations. Boise, ID: National Interagency Fire Center.

Zomlefer, W. B., Giannasi, D. E., Bettinger, K. A., Echols, S. L., & Kruse, L. M. (2008). Vascular Plant Survey of Cumberland Island National Seashore, Camden County, Georgia. Castanea, 73(4), 251-282.

Appendix A-1: Annual Delegation of Authority - FMO

United States Department of the Interior

NATIONAL PARK SERVICE
Cumberland Island National Seashore
101 Wheeler Street
Saint Marys, GA 31558

Memorandum: Delegation of Authority for Cumberland Island National Seashore Fire Management Officers.

To: Lucas Hunkler, Zone Fire Management Officer, Atlantic Zone

From: Melissa Trenchik, Superintendent, Cumberland Island National Seashore

Subject: Fire Management Officer Delegation of Authority

As per RM 18, and the Standards for Fire and Fire Aviation Operations Lucas Hunkler, Fire Management Officer for Cumberland Island National Seashore, is delegated authority to act on my behalf for the following duties and actions:

- Represent Cumberland Island National Seashore in setting priorities and allocating resources for fire emergencies.
- Coordinate all prescribed fire activities in Fort Frederica National Monument and suspending all prescribed fire and issuance of burning permits when conditions warrant.
- Ensure that only fully qualified personnel are used in wildland fire operations.
- Coordinate, preposition, send, and order fire and aviation resources in response to current and anticipated park fire conditions.
- Request and oversee distribution of severity funding for the Fire and Aviation program.
- Approve Fire Program requests for overtime, hazard pay, and other premium pay.
- Ensure all incidents are managed in a safe and cost-effective manner.
- Coordinate and provide all fire and prevention information needs to inform internal and external costumers with necessary information.
- Coordinate all fire funding accounts with the budget officer to assure unit fiscal guidelines are adhered to and targets are met.
- Approve and sign aviation request forms.
- Approve red cards in accordance with agency policy.
- Authorized to hire emergency firefighters in accordance with the Administratively Determined (AD) Pay Plan for Emergency Workers (Casuals).
- Utilize fire management assistance from Cumberland Island Fire Staff, as outlined in the 2018 Inter-park Agreement for the NPS Atlantic Zone.

LUCAS HUNKLER
Digitally signed by LUCAS HUNKLER
Date: 2025.09.23 15:40:15 -04'00'

Fire Management Officer Date

MELISSA TRENCHIK
Digitally signed by MELISSA TRENCHIK
Date: 2025.11.05 13:08:06 -05'00'

Superintendent, Cumberland Island National Seashore Date

INTERIOR REGION 2 • SOUTH ATLANTIC-GULF
ALABAMA, FLORIDA, GEORGIA, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, U.S. VIRGIN ISLANDS

Appendix A-2: Annual Delegation of Authority – Duty Officer

United States Department of the Interior

NATIONAL PARK SERVICE
Cumberland Island National Seashore
101 Wheeler Street
Saint Marys, GA 31558

Memorandum: Delegation of Authority for Cumberland Island National Seashore Fire Management Duty Officers.

To: Lucas Hunkler, Fire Management Officer, Cumberland Island National Seashore

From: Melissa Trenchik, Superintendent, Cumberland Island National Seashore

Subject: Fire Management Duty Officer, Delegation of Authority

As per RM 18, and the Standards for Fire and Fire Aviation Operations I am delegating authority to Lucas Hunkler to serve as Fire Management Duty Officer (DO) for Cumberland Island National Seashore. The required duties for all DO's are:

- Monitor unit incident activities for compliance with NPS Safety policies.
- Coordinate and set priorities for unit suppression actions and resource allocation.
- Keep Agency Administrators, suppression resources and Information Officers informed of the current and expected situation.
- Plan for and implement actions required for future needs.
- Document all decisions and actions.

Dos will provide operational oversight of these requirements as well as any specific duties assigned by fire managers through the fire operating plan. Dos will not fill any ICS incident command functions connected to any incent. In the event that the DO is required to accept an incident assignment, the FMO will ensure that another authorized DO is in place prior to the departure of the outgoing DO.

LUCAS HUNKLER Digitally signed by LUCAS HUNKLER Date: 2025.09.23 15:40:47 -04'00'

Fire Management Officer Date

MELISSA TRENCHIK Digitally signed by MELISSA TRENCHIK Date: 2025.11.05 13:08:31 -05'00'

Superintendent, Cumberland Island National Seashore Date

INTERIOR REGION 2 • SOUTH ATLANTIC-GULF
ALABAMA, FLORIDA, GEORGIA, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, U.S. VIRGIN ISLANDS

Appendix B: Inter-Park Agreement

Inter-Park Agreement

Between

Atlantic Fire Management Zone

And the following National Park Service Units:

Andersonville National Historic Site

Canaveral National Seashore

Castillo de San Marcos National Monument

Cumberland Island National Seashore

Fort Caroline National Memorial

Fort Frederica National Monument

Fort Matanzas National Monument

Fort Pulaski National Monument

Jimmy Carter National Historical Park

Ocmulgee Mounds National Historical Park

Timucuan Ecological & Historic Preserve

Background

Wildland fire management and associated activities require technical expertise that may not be present at the individual park level. These include, but are not limited to:

- Fire management planning
- Wildfire suppression preparedness/training Fire mobilization and dispatch
- Fire reporting
- Fuels management project planning and implementation Capitalized equipment requests
- Fire effects monitoring/research.

To address this issue, in 2015, the Regional Fire Management Officer and the Regional Directorate for the DOI NPS Region 2 identified a group of 11 parks and created the Atlantic Fire Management Zone (ATL Zone). The Chief Ranger at CUIS provides supervision for the ATL Zone Fire Management Officer (FMO).

Purpose

The purpose of this agreement is to define the responsibilities of Agency Administrators, ATL Zone fire management staff, and staff from ATL Zone parks regarding fire management activities.

Organization

The Park Superintendent (Agency Administrator) is responsible for wildland fire management within the park. The ATL Zone Fire management staff, led by the Zone FMO, will provide policy guidance, technical expertise, planning, ecology, and operational support to the Park Superintendent to meet wildland fire management requirements and achieve fir management goals and objectives. To facilitate efficient communication between the park and ATL Zone fire management staff, the Superintendent must provide and direct a Fire Program Coordinator from his or her staff.

Agency Administrator Requirements for Fire Operations

Taken from the Interagency Standards for Fire and Aviation Operations (NFES 2724) CHAPTER 03

1. Take necessary and prudent actions to ensure firefighter and public safety.
2. Ensures sufficient qualified fire and non-fire personnel are available each year to support fire operations at a level commensurate with the local and national fire situation. Ensures that all training and certification of fire and non-fire personnel is completed as required to support fire operations at the local and national level.
3. Ensure fire management officers (FMOs) are fully qualified as identified in the *Interagency Fire Program Management Qualification Standards*.
4. Provide a written Delegation of Authority (DOA) on an annual basis to individual(s) responsible for wildland fire management activities to ensure an adequate level of operational authority. Depending on park organizational structure, written delegations may be provided to the chief ranger, natural resource specialist, FMO, designated fire coordinator, park group FMO, or to individuals from neighboring fire management

organizations, provided a written agreement or memorandum of understanding is in-place. Where applicable, an inter-park agreement that specifies the reciprocal responsibilities of the superintendent and park group FMO assigned DO, will be prepared. This inter-park agreement will be accompanied by an annual delegation of authority. Both the delegation of authority and inter-park agreement will remain valid until rescinded by either party, updates are needed, or personnel changes necessitate a revision and update. As appropriate, the delegation of authority will specify multi-agency coordination (MAC) group authorities.

5. Park units with burnable vegetation must have an approved Fire Management Plan (FMP). All NPS FMPs must align with the current (2014) DOI Fire Management Plan template by October 1, 2024. For additional FMP agency administrator management performance requirements, refer to RM-18, Wildland Fire Management Chapter 4, Fire Management Plans.
6. Review and approve wildfire preparedness and fuels management funding based on an accurate and defensible readiness analysis. Ensure use of fire funds is in compliance with DOI and agency policies.
7. Develop fire management standards and constraints that are in compliance with agency fire policies.
8. Ensure compliance with the collection, storing, and aggregation of wildland fire program core geospatial data (http://share.nps.gov/firegis).
9. Management teams will meet annually to review fire and aviation policies, roles, responsibilities, and delegations of authority. Specifically address oversight and management controls, critical safety issues and high-risk situations, such as team transfers of command, periods of multiple fire activity and Red Flag Warnings.
10. Review safety policies, procedures, and concerns with field fire and fire aviation personnel. Discussions should include issues that could compromise safety and effectiveness during the upcoming season.
11. Ensure timely follow-up actions to program reviews, fire preparedness reviews, fire and fire aviation safety reviews, fire critiques and post-season reviews.
12. Ensure fire and fire aviation preparedness reviews are conducted in all units annually. Parks must complete checklists applicable to their specific program scope and complexity and include appropriate program elements, such as prescribed fire. A summary of the preparedness review findings including standards exceeded or needing improvement will be submitted to the regional FMO before the fire season.
13. Ensure an approved burn plan is followed for each prescribed fire project; technical review, Prescribed Fire Go/No-Go Checklist (PMS 484-1, Element 2B), and Agency Administrator Ignition Authorization (PMS 484-1, Element 2A) are completed; and follow-up monitoring and documentation to ensure management objectives are met.
14. Ensure Air Quality Exceedance Reviews are completed in cooperation with NPS Air Resource Division.
15. Meet annually with major cooperators and review interagency agreements to ensure their continued effectiveness and efficiency (may be delegated).
16. Ensure post fire reviews are conducted on all fires that escape initial attack or are managed

as long-term incidents. Participate in all reviews that require management by any type of incident management team (regional director may delegate).

17. Provide management oversight by personally visiting wildland and prescribed fires each year.
18. Provide incident management objectives, written delegations of authority, and agency administrator (AADM) briefings to IMTs. See Chapter 11, Agency Administrator Responsibilities.
19. Monitor wildfire potential and provide oversight during periods of critical fire activity/situations.
20. Ensure that resource advisors are identified, trained, available, and appropriately assigned to wildland fire incidents. Refer to Resource Advisors Guide for Wildland Fire PMS 313, NFES 1831, Aug 2017.
21. Convene and participate in annual preseason and postseason fire meetings.
22. Ensure park superintendents who have potential wildland fire response in their park, their designated acting superintendents, and supervisors of fire management officers (FMOs) attain and maintain the AADM qualification in the Incident Qualifications and Certification System (IQCS). The qualification must be attained within two years of appointment.
23. Ensure appropriate investigations are conducted for accidents (as defined in Chapter 18), entrapments, shelter deployments, and related events.
24. For all unplanned human-caused fires where liability can be determined, ensure actions are initiated to recover cost of suppression activities, land rehabilitation, and damages to the resource and improvements.
25. Ensure there is adequate direction in fire management plans to identify fire danger awareness with escalating fire potential.
26. NPS Superintendents or other designated approving officials will maintain WFDSS user profiles (as appropriate), allowing them to approve wildfire decisions in WFDSS.
27. Ensure compliance with departmental and agency policy, as well as regional office direction for prescribed fire activities and ensure that periodic reviews and inspections of the prescribed fire program are completed.
28. Review prescribed fire plans and recommend or approve the plans depending upon the delegated authority. Ensure that the prescribed fire plan has been reviewed and recommended by a qualified technical reviewer who was not involved in the plan preparation.
29. Serves as the management official (MO) within the DOI Wildland Firefighter Medical Standards Program.

ATL Zone Fire Management Staff Responsibilities

Management and Planning

1. Provide overall fire management program guidance and technical expertise Administer the preparedness and fuels-management fire budgets

2. Maintain and supervise permanent and seasonal ATL Zone fire management staff, who provide support to the ATL Zone parks
3. Review and provide technical assistance in the preparation, maintenance, and update of park Fire Management Plans (FMPs) and associated documents
4. Assist ATL Zone parks in preparing requests for fuels project funding, prioritization, and submission through the agency approved planning and reporting system.
5. Provide technical expertise and qualified personnel for the planning of prescribed fire and non-fire fuels treatment projects
6. Provide support to park fire program coordinators to enhance training and development to the collateral-duty positions
7. Support parks in creating and maintaining relationships and agreements with local Fire Departments and other cooperators for wildland fire protection services
8. Provide fire ecology support for development of resource management goals and objectives for the overall fire program and fuels-management program
9. Provide technical assistance in the management of aviation and structural-fire related issues, as qualifications allow
10. Represent all ATL Zone parks, collectively and individually as needed, at and on meetings, conferences, committees, and other agency and interagency wildland fire functions and organizations, including appropriate State Multi-Agency Coordinating groups
11. Quality-check and certify final fire reports in InFORM, (Interagency Fire Occurrence Reporting Modules)

Preparedness Activities

1. Recommend wildfire prevention, preparedness, step-up, severity, and suppression activities when appropriate to park staff
2. Distribute to park fire program coordinators Safety Advisories, Red Flag Warnings, Fuels Advisories, and other notices related to fire safety.
3. Assist in maintaining qualifications, training, and experience records in the appropriate interagency computer system currently IQCS, (incident Qualifications Computer System)
4. Disseminate notices and announcements for fire--related training and training academies.
5. Schedule and conduct training to meet ATL Zone park needs and promote development of operational, overhead and administrative personnel, and/or advise fire program coordinators in conducting in--park fire training and refreshers. This includes supplying instructors, instructor guidance, and training materials, as practical, and prioritizing fire-related training needs.
6. Administer fire position task book system and initiate fire position task books as appropriate
7. Assist in conducting annual preparedness reviews, of both personnel and equipment, according to Red Book Standards

Operations/Field Support

1. ATL Zone Fire Duty Officer will provide incident support as available, warranted, and requested. All resource orders will go through the requesting unit's Interagency Coordination Center
2. Assist park fire program coordinators in the mobilization and dispatch of fire resources with the appropriate state coordination center, and updating resource status in IROC (Interagency Resource Ordering Capability)
3. Provide technical expertise, experience, and operationally qualified personnel for the preparation and execution of prescribed fire and non--fire fuels treatment projects
4. Conduct fire-effects monitoring of prescribed fire and non-fire fuels treatment projects according
5. to agency standards
6. Provide Remotely Automated Weather System (RAWS) support as needed and qualified.

ATL Zone Park Unit Responsibilities

Each ATL Zone park will designate a key official and central contact for liaison with the ATL Zone fire management office. This person is called the fire program coordinator (FPC). The FPC is responsible for:

1. Coordinating with the Zone FMO and/or designee on all aspects of their park unit's fire program management
2. Notifying the Fire Duty Officer of any wildfire occurrence as soon as possible (at least within 12 hours of initial report)
3. Ensuring wildland fire size-ups are completed on all wildland fire incidents.
4. Maintaining permanent project files for wildfires, prescribed fires, and non-fire fuels treatment projects conducted in the park
5. Facilitating and scheduling pack tests and refreshers in coordination ATL Zone fire staff Ensuring that firefighters complete necessary paperwork and appointments to meet Medical Qualification Standards, including initial and follow--up appointments and waivers
6. Providing documentation of training and experience to the ATL Zone fire staff Maintaining fire supplies, fire equipment, and fire PPE
7. Initiating and participating in meetings and other contacts with local Fire Departments and other cooperators as needed
8. Providing Geo-Spatial information to the fire management office, for the purpose of determining
9. boundaries and NPS land ownership in support of Incident Management Responses and fuels projects
10. Working directly with Zone fire staff on all matters concerning fuels related projects where regional funding is provided. Parks may not implement projects independently without approval from Zone FMO.
11. Ensuring completion of all NEPA and other compliance needs for fuels management projects and FMP updates.

12. Coordinate all requests for Step-Up or Severity accounts through the ATL Zone fire management office.

Funding

All funding needs and requests are subject to prior approval, prioritization, and funds availability. If allocated funding is insufficient, the Zone FMO will request additional funding from the DOI-NPS Region 2 FMO.

Funding for specific activities will be as follows:

Step-Up and Severity Funding - Funding for step-up and severity are funded from the DOI-NPS Region 2 Fire Management Office and National Office of Wildland Fire, respectively. Requests for funding during these events must be coordinated with the ATL Zone FMO or Duty Officer.

Fuels Treatment Projects - Funding for all stages of prescribed fire and non-fire fuels treatment projects, including planning, contracting, plan writing, preparation, and execution, will be provided by the NPS Region 2 Fire Management Office as requested through the agency approved fuels treatment planning and reporting system. Parks must coordinate with ATL Zone fire management staff to request project funding. When fire funds are unavailable it may be necessary that individual parks supply funding from other sources to cover fuels project needs.

Incident Overtime and Travel - Overtime and travel costs incurred on incidents will be borne by the appropriate incident accounts, as approved on incident resource order(s). Zone fire management staff can provide technical assistance with incident business management, including time and travel.

Firefighter Physicals - The cost of firefighter physicals will be paid for by an account number provided by the National Fire Management Program Center.

Program Costs - Routine costs, including travel and per diem, communication, supplies and materials, and vehicles, incurred by ATL Zone fire staff in carrying out normal duties within ATL Zone parks will be charged against fire program accounts maintained by the Zone. Unless otherwise agreed to, none of these costs will be borne by the satellite parks.

Supplies - The ATL Zone fire staff may pay for, and generally order and deliver, wildland fire-related supplies and personal protective equipment such as hand tools, chain saws, leaf blowers, portable pumps, personal protective equipment, firefighting line gear, hose and fittings, and other fire cache supplies and materials. When fire funds are unavailable it may be necessary that individual parks supply funding to cover critical equipment needs.

Training - The requesting park will provide funding for collateral duty wildland firefighters who wish to attend trainings.

Term of Agreement/Updates

This Interpark Agreement will remain valid until rescinded by either party, updates are needed, or personnel changes necessitate a revision or update. The Agreement will be reviewed each year during the FMP update process.

Appendix C: Cooperative and Interagency Agreements

The 2023 Master Cooperative Wildland Fire Management and Stafford Act Response Agreement, the 2022 Tri-Agency Agreement and Operating Plan, and Georgia's Interagency Burn Team Agreement have been uploaded to the NPS Wildland Fire Management A123 Sharepoint Site CUIS page.

Appendix D: Preparedness Planning Documents

D-1: Fire Weather and Fire Occurrence Analysis Document

D-2: Step-Up Plan

D-3: Preparedness Level Plan

D-4: Initial Response Plan

Appendix D-1: Fire Weather and Fire Occurrence Analysis Document (FWOAD)

The 2025 FWOAD was updated based on data from the Fire Environment Mapping System (FEMS) website. The 2025 FWOAD is uploaded to the CUIS page of the NPS Wildland Fire Management A-123 SharePoint site.

Appendix D-2: Preparedness Level Plan

The Atlantic Zone Duty Officer will determine the daily Preparedness Level for CUIS and FOFR with primary consideration for NFDRS outputs; specifically, the predicted Staffing Class and Adjective Rating. Preparedness Levels (1-5) are determined by incremental measures of NFDRS outputs in combination with local/regional fire activity and resource commitment. Preparedness Levels incorporate relatively stable variables to help with long-term decisions, such as the need to request severity funding or activation of public-use restrictions.

Table 6: Preparedness Level Flowchart

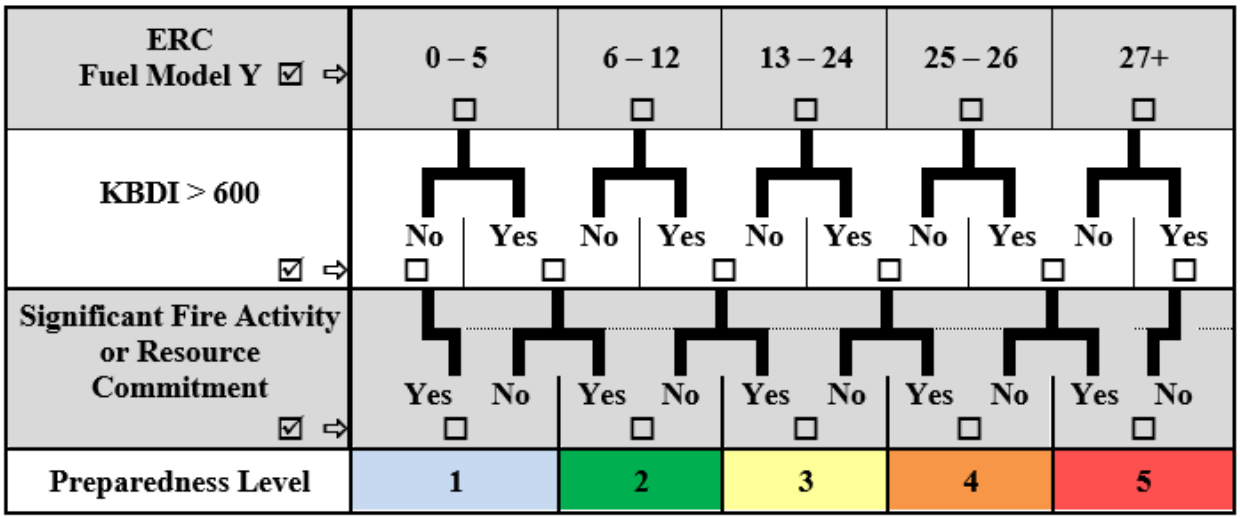


Table 7: Agency Administrator Preparedness Actions

Responsible Party	Suggested Action	PL 1	PL 2	PL 3	PL 4	PL 5
Park Superintendent	Ensure staff are available to provide resource briefings to incoming response resources.		X	X	X	X
	Issue guidance to staff indicating severity of the season and increased need and availability for fire support personnel (i.e. availability for large fire support).			X	X	X
	Provide appropriate support to park group FMO fire staff regarding the implementation of preparedness level actions (i.e. severity requests, restrictions and closure planning).				X	X
	Communicate with local partners and cooperating agencies regarding fire conditions, fire restrictions, and/or area closures.				X	X

Table 8: Fire Management Officer Preparedness Actions

Responsible Party	Suggested Action	PL 1	PL 2	PL 3	PL 4	PL 5
Park Group FMO and/or Duty Officer	Evaluate seasonal severity data (NFDRS indices seasonal trend, fuel loading/fuel moisture, drought indices, long-term forecasts).		X	X	X	X
	Brief agency administrator on increasing burning conditions and fire activity.			X	X	X
	Coordinate with interagency partners on the need for fire restrictions or closures.				X	X
	Request the agency administrator to issue guidance to agency staff regarding the need for increased availability in support positions.				X	X
	Consider the need for severity funding to support pre-positioning of additional IA resources from off-unit.				X	X

Table 9: Prevention/Mitigation Actions

Responsible Party	Suggested Action	PL 1	PL 2	PL 3	PL 4	PL 5
Park Public Affairs Lead	Include local fire information at visitor center during periods of fire activity.			**X**	**X**	**X**
	Post signs and fire restriction information at kiosks and Visitor Center as conditions increase.				**X**	**X**

Appendix D-3: Step Up Plan/Staffing Plan

CUIS uses the Energy Release Component (ERC) to indicate the potential amount of effort needed to suppress a single fire in a fuel type within a given area. This, in turn, determines the staffing class. Staffing Class levels range from 1 to 5 (lowest to highest). As ERC increases, there will be corresponding actions intended to mitigate the predicted difficulty of containing a wildfire.

The table below illustrates the correlation between ERC and step-up staffing class levels and actions. Break points were established via a Fire Family Plus analysis, with weather inputs from the Stafford Remote Automated Weather Station (NFDRS #099902). Staffing classes 4 and 5 were calculated at the 90th and the 97th percentiles, respectively from January 1, 2014 through May 28, 2024. (Conditions meeting the staffing class 4 parameters should occur only 10% of the time and staffing class 5 parameters should occur only 3% of the time.) NFDRS v.4 fuel model Y was utilized for step-up staffing purposes.

The energy release component/staffing class correlation should be validated based upon day-to-day observation and experience. An annual analysis should be conducted as part of the FMP update. Staffing levels should reflect the past 10 years of weather data when available. The Fire Environment Mapping System (FEMS) does not currently provide quality-controlled data between 2023 and present day, but this data will be available in the future. The following breakpoints were determined using the QA/QC'd weather data currently available in FEMS (2005-2022).

Table 10: Staffing Class Levels and Step-Up Actions

Staffing Level	ERC Rating	Activity
1	**0-5**	• Duty Officer coverage provided
2	**6-12**	• Duty Officer coverage provided

3	**13-23**	• Duty Officer coverage provided • Duty Officer will determine the need for extended staffing • Engine or Fire Patrol identified
4	**25-26**	• Duty Officer coverage provided • Duty Officer will extend staffing days and/or hours as necessary • Consider requesting preparedness or severity funding if prolonged fire danger is anticipated • Recommended staffing: (1) Type 4 IC, and (1) Engine • Coordinate with USFWS, USFS, GFC, and GICC • Consider increasing prevention activities (high fire danger signs, resident contacts, visitor briefings, etc.)
5	**27 or greater**	• Duty Officer coverage provided • Duty Officer will extend staff hours as necessary • Request severity funding if prolonged fire danger is anticipated • Recommended staffing: (1) Type 4 IC, and (1) Engine • Coordinate with USFWS, USFS, GFC, and GICC • Increase prevention activities (high fire danger signs, press releases, resident contacts, visitor briefings, etc.) • Coordinate with Agency Administrator to ensure availability of local, non-fire resources. • Consider aerial detection flight if resources are available

Emergency preparedness step-up or severity funds are available during staffing levels 4 and 5, or when fuel conditions meet the criteria of the 2025 NPS Wildland Fire Severity Program Guidance. Park level funding may be made available for staffing class levels 2 and 3. If severity funding is necessary, the Zone FMO will submit a written assessment of the current and potential situation, including a description of mitigating actions and costs to the Regional FMO.

Appendix D-4: Initial Response Plan

Report of a wildfire may come from visitors, island residents, aircraft and other sources. Because wildfire is considered an emergency, those reports are often communicated to the local 911 dispatch center. In the event of a reported wildfire incident on the park, a dispatch center will be established either on the mainland or at the Captain's House on the island and it will be staffed with an initial attack dispatcher.

The initial attack dispatcher will coordinate FMO/incident commander's needs with local agencies and the GICC as well as keeping a communication log. If a wildfire is reported on Little Cumberland Island FMU #3 Camden County and GFC must be notified as they are the lead agency for response to this FMU. An overview of initial response procedures is provided in Section 3.1.1.2 of this FMP.

Every fire report will get a response. Once a fire is reported to the duty officer, a crew will attempt to locate fire and get a size up with the following information:

- Fire Name (Geographical Location if Possible) Date
- Incident Action Number (FMO will assign)
- Reporting party information
- Descriptive location
- Latitude and Longitude
- Estimated size in acres
- Ownership at origin
- FMU number/name
- Structures and/or private property threatened
- Does fire constitute control problems
- Additional resource needs
- Estimated containment and control times
- Cause
- Spread potential
- Character of fire Weather conditions Fuel type
- Wind direction

Once a size up has occurred and has been relayed to the FMO, the FMO along with the CUIS Superintendent will decide as to what action to take on the fire. Actions on the wildfire depend on the fire cause and the FMU in which the ignition occurs.

As soon as possible after an initial wildfire has been reported the FMO or Duty Officer will call the local cooperators to notify them of a potential fire within CUIS boundaries.

Cooperator notification includes:

- Camden County Fire and Rescue – 912-729-1442 (ask for Battalion Chief to be notified)
- Georgia Forestry Commission, Camden Unit - 912-576-5387 or 912-552-3821
- Okefenokee National Wildlife Refuge Fire Staff, Greg Titus (Zone FMO) 850-251-1254 or Andy Heisey (Unit FMO) 912-602-9317
- Georgia Interagency Coordination Center 770-297-3036

Once a fire has been identified, the Duty Officer and Superintendent will discuss actions to be taken on the fire. The WFDSS will be used to document decisions as required by policy for any wildfire being managed for resource objectives or any wildfire that requires an extended attack. Items that will be evaluated in a Risk Assessment when deciding on response type include, but are not limited to:

- Current and expected weather.
- Current and expected fire danger
- Seasonal timing
- Long term drought and fuel conditions
- Geographic and National Preparedness level
- Availability of resources
- Local cooperator fire occurrence
- Anticipated social and political complexities if fire is allowed to burn naturally

Contact Information for CUIS, Atlantic Zone Staff, and cooperators:

CUIS Staff Name/Position	Contact Information
Melissa Trenchik Superintendent	912-597-2748
Jared Brewer LEO Chief Ranger	912-409-0361
Michael Seibert Chief of Resources	912-597-2998
Richard (Scott) Daniels Facilities Manager	912-597-2823
Vacant Chief of Interpretation	
Atlantic Zone Staff Name/Position	Contact Information

Lucas Hunkler ATLZ Fire Management Officer	912-464-7067
Vacant Fire Planner	
Vacant Prescribed Fire Specialist	
Vacant Fire Management Assistant	
Vacant Fire Operations	
Sam Ruzkowski Wildland Firefighter	912-882-4336 ext. 221
Local Cooperators	Contact Information
Camden County Fire and Rescue (ask for Battalion Chief to be notified)	912-729-1442
Georgia Forestry Commission, Camden Unit	912-262-2330
Okefenokee National Wildlife Refuge Fire Staff Andy Heisey (Unit FMO)…….	912-602-9317
Georgia Interagency Coordination Center	770-297-3036
Kings Bay Naval Base	912-573-2020/2021
Coast Guard	912-267-7999
Camden County Sherriff's Office	912-510-5100
NPS Regional Contact/Position	Contact Information
Shawn Nagle Regional Fire Management Officer	662-231-4024 cell
Travis Neppl Deputy Regional Fire Management Officer	662-401-5288 cell
Fulton Jeansonne Acting Regional Operations Specialist	409-926-6766 cell
Jordan Black Acting Regional Aviation Manager	865-250-3128 cell
Rob Klein Regional Fire Ecologist	470-219-3218 cell
Hannah Strotman Budget Analyst	770-722-5389 cell

Appendix E: Fire Prevention and Mitigation Plan (not required)

Appendix F: Multi-Year Fuels Treatment Plan

FY 2026 Rx

Treatment Name	Project Area Acres	Target Acres
Triangle Unit	229	140
Brick Hill Bluff	108	67
Old River	570	117
Total	**907**	**324**

FY 2027 Rx

Treatment Name	Project Area Acres	Target Acres
Table Point	1544	122
Settlement	366	126
Stafford Plantation	59	59
Old House	305	56
Total	**2274**	**363**

FY 2028 Rx

Treatment Name	Project Area Acres	Target Acres
Long Point	376	77
North Cut	280	280
Stockwell Bluffs	62	62
Terrapin Point	263	92
Total	**981**	**511**

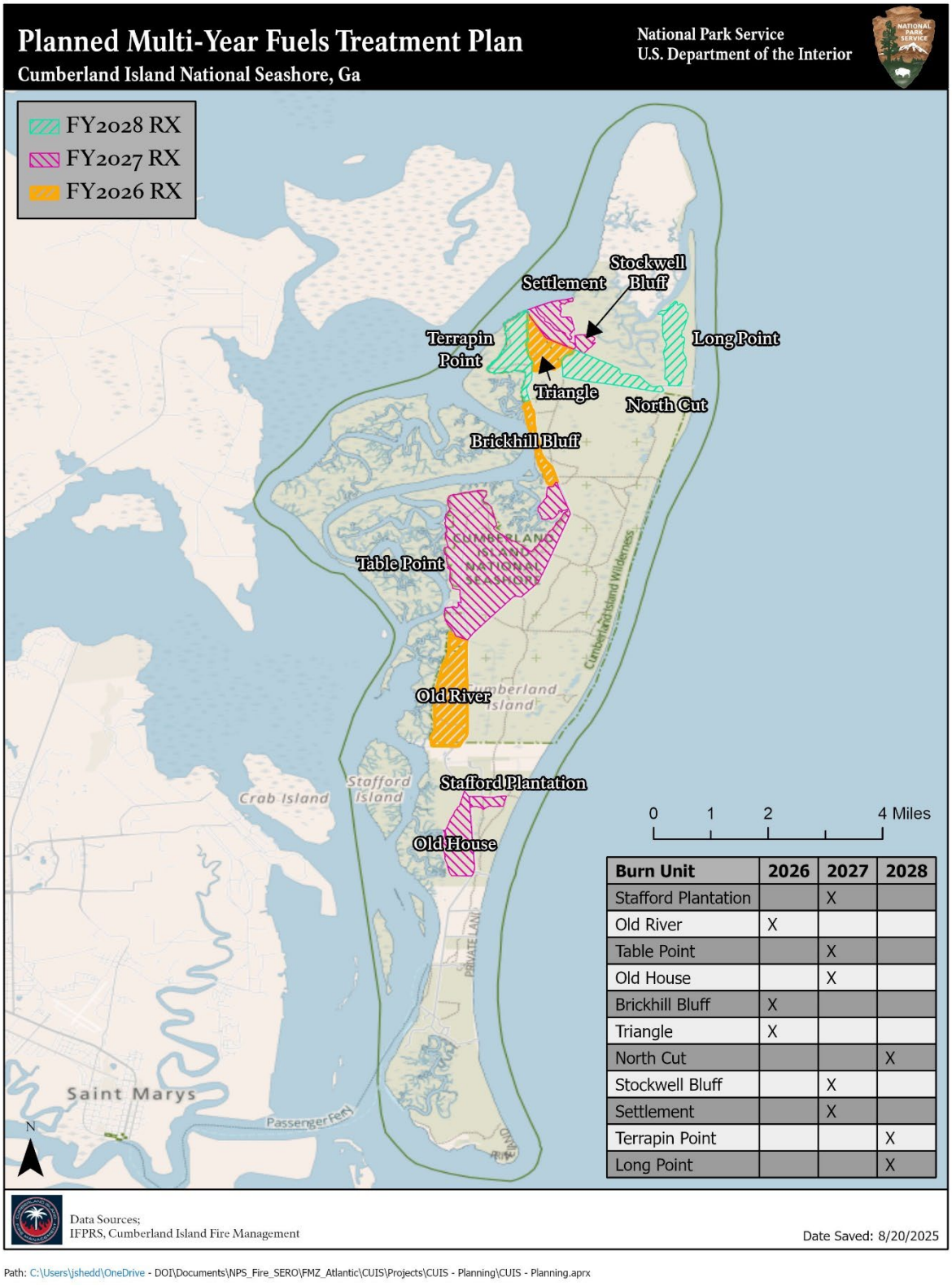


Figure 10: CUIS Multi-Year Fuels Treatment Plan (FY 2026-2028)

Mechanical Treatments

Mechanical treatments can be grouped into two categories: Annual Recurring Treatments and First Entry Treatments.

Annual Recurring Treatments:

Have already been treated initially with a skid steer with masticating head and can be maintained annually with the masticating head or brush mower attachment on the skid steer or brush mower on a tractor. These treatments generally have less than three feet of growth from ground level.

This includes fuel breaks along North Cut, Shell Road, Club Road, Miller Access, Olsen Access, Candler Beach Access Roads, Cemetery and Cemetery Road, and between Settlement South and Settlement North.

Additionally, all structures on the north end of the island have a 100-300 ft buffer that is being treated annually.

Plum Orchard area within the Historic District along with 100ft buffer around Island Repeater site

Other treated structures include Stafford Beach Campground Bathrooms, Stafford Beach Well, Hunt Camp Cabin, Nightingale Well House and Well House Access Road, Carpenters Shed, Carriage House, and White Cottage.

A buffer of 6 ft of annual mechanical treatments is maintained on the east and west sides of the main road and Plum Orchard Road. The wilderness boundary begins 12.5 ft from the center line of the main road in the Cumberland Island Wilderness. This treatment will remain outside of the wilderness area.

Okefenokee Rural Power easement on Table Point.

Structures in the Dungeness area.

A buffer of 6 ft on the north and south sides of the Seacamp crossing from Seacamp Ranger Station to Main Road along with a 100ft buffer around the Seacamp bathroom and Seacamp Ranger Station.

Planned First Entry Treatments:

These areas generally have higher fuel loading that requires and initial treatment with a skid steer with masticating head. The goal is to move these areas once initially treated to annual recurring treatments.

Fuel break on south side of Cumberland Island Wilderness on TNC property (Dependent on signed MOU with TNC)

30 ft buffer on roads in Davisville area. 30ft buffer on Old House Trail. And 300 ft buffer around NPS structures.

A buffer of 6 ft on the north and south sides of the Seacamp crossing from Seacamp Ranger Station to Main Road along with a 100ft buffer around the Seacamp bathroom and Seacamp Ranger Station

New fireline going from Warf Ruins to First African Baptist Church.

Appendix G: Minimum Impact Strategy and Tactics Guidelines

The concept of Minimum Impact Strategy and Tactics (MIST) is to use the minimum number of forces necessary to effectively achieve the fire management protection objectives consistent with land and resource management objectives. It implies a greater sensitivity to the impacts of suppression tactics and their long-term effects when determining how to implement a suppression response. In some cases, MIST may indicate cold trailing or wet line may be more appropriate than constructed hand line. In another example, the use of an indirect trail system may be used rather than cutting new fireline. Individual determinations will be dependent on the specific situation and circumstances of each fire.

MIST is not intended to represent a separate or distinct classification of firefighting tactics but rather a mindset of how to suppress a wildfire while minimizing the long-term effects of the suppression action. When the term MIST is used in this document it reflects the above principle.

Suppression actions on all wildfires within CUIS protected lands and wilderness will be those having a minimum impact on the physical resources associated with each site. In so doing, the principle of fighting fire aggressively but providing for safety first ***will not be compromised.***

The key challenge to the line officer, fire manager, and firefighter is to be able to select the wildfire suppression tactics that are appropriate given the fire's probable or potential behavior. MIST, may result in an increase in the amount of time spent watching, rather than disturbing, a dying fire to insure it does not rise again. Tactics may also involve additional rehabilitation measures on the site that were not previously carried out.

When selecting an appropriate suppression response, firefighter safety must remain the highest concern. In addition, fire managers must be assured the planned actions will be effective and will remain effective over the expected duration of the fire.

Goal

The goal of MIST is to halt or delay fire spread in order to maintain the fire within predetermined parameters while producing the least possible impact on the resource being affected. These parameters are represented by the initial attack incident commander's size-up of the situation in the case of a new start or by the WFDSS analysis in case of an extended attack

wildfire.

It is important to consider probable rehabilitation needs as a part of selecting the appropriate suppression response. Tactics that reduce the need for rehab are preferred whenever feasible.

Suppression Responsibility

Initial Attack

Incident Commander

- To understand and carry out an appropriate suppression response which best meets the management objectives for the area at the least cost and damage to the resource.
- Ensure all forces on the fire understand the plan for its suppression in conjunction with MIST.
- Keep in communication with responsible fire management or line officer to ensure understanding and support of tactics being used on the fire.
- Evaluate and provide feedback as to the tactical effectiveness during and after fire incident.

Extended Attack / Project Fire

Incident Commander

- To carry out instructions given by the responsible line officer both verbally and through the WFDSS decision.
- Establish and nurture a close dialogue with the resource advisors assigned to the fire team.
- Review actions on site and evaluate for compliance with line officer direction and effectiveness at meeting fire management protection objectives.

Agency Administrator (Superintendent)

- Relays the resource management objectives of the fire area to the fire team and defines specific fire management protection objectives.
- Periodically review actions to ensure compliance.

Resource Advisor

- To ensure the interpretation and implementation of the suppression tactics and other oral or written line officer directions are adequately carried out.
- Provide specific direction and guidelines as needed.
- Participate at fire team planning sessions, review incident action plans, and attend daily briefings to emphasize resource concerns and management's expectations.

- Provide assistance in updating WFDSS when necessary.
- Participate in incident management team (IMT) debriefing and assist in evaluation of team performance related to MIST.
- Work with the IMT and BAER team on suppression damage repair.

MIST Implementation Guidelines

The following is a list of considerations for each fire situation:

Hot-Line/Ground Fuels

- Allow fire to burn to natural barriers.
- Use cold-trail, wet line or combination of fireline tactics when appropriate.
- If constructed fire line is necessary, use only width and depth to check fire spread. Burn out from trail system or natural barrier
- Minimize bucking and cutting of trees to establish fire line; build line around logs when possible.
- If equipment is authorized, use alternative mechanized equipment such as excavators, rubber tracked skidders, etc. rather than large bulldozer type equipment when possible. Use high pressure type sprayers to clean equipment prior to assigning equipment to the incident command in order to reduce the potential to spread noxious weeds.
- Constantly re-check cold trailed fire line.

Hot-Line/Aerial Fuels

- Limb vegetation adjacent to fire line only as needed to prevent additional fire spread. During fire line construction, cut shrubs or small trees only when necessary. Make all cuts flush with the ground.
- Minimize felling of trees and snags unless they threaten the fire line or endanger workers. In lieu of felling, consider identifying hazard trees with a lookout or flagging.
- Scrape around tree bases near fire line if it is likely they will ignite.

Mop-up/Ground Fuels

- Do minimal spading; restrict spading to hot areas near fire line and within identified mop up standards.
- Cold-trail charred logs near fire line; do minimal tool scarring.
- Minimize bucking of logs to extinguish fire or to check for hotspots; roll the logs over if possible.
- Return logs to original position after checking and when ground is cool. Consider allowing large logs to burn out.

- Consider using infrared detection devices along perimeter to reduce risk of hot spots.

Mop-up/Aerial Fuels

- Remove or limb only those fuels which if ignited have potential to spread fire outside the fire line.
- Before felling consider allowing ignited tree/snag to burn itself out. Ensure adequate safety measures are communicated if this option is chosen.
- Identify hazard trees with a lookout or flagging.
- If burning trees or snags poses a serious threat of spreading fire brands, extinguish fire with water or dirt whenever possible.
- Align saw cuts to minimize visual impacts from more heavily traveled corridors. Slope cut away from line of sight when possible.

Logistics

Campsite Considerations

- Locate facilities outside of wilderness or use established campsites.
- Coordinate with the Resource Advisor in choosing a site for appropriate resource protection and safety concerns.
- New site locations should be on impact resistant and naturally draining areas such as rocky or sandy soils, or openings in heavy timber. Other options include using dorms, or grass areas in the historical districts.
- Lay out the camp components carefully from the start. Define cooking, sleeping, latrine, and water supply.
- Use commercial portable toilet or established toilet facilities where available. If these cannot be used a latrine hole should be used.
- Select latrine sites a minimum of 200 feet from water sources with natural screening. Do not use nails in trees.
- Constantly evaluate the impacts which will occur, both short and long term.

Personal Camp Conduct

- Use “leave no trace” camping techniques.
- Minimize disturbance to land when preparing bedding site. Do not clear vegetation or trench to create bedding sites.
- Use stoves for cooking, when possible. If a campfire is used, limit to one site and keep it as small as reasonable.
- Use down and dead firewood. Use small diameter wood, which burns down more cleanly.

Don't burn plastics or aluminum – "pack it out" with other garbage.

- Keep a clean camp and store food and garbage so it is unavailable to wildlife. Select travel routes between camp and fire and define clearly.
- Personnel must not introduce soaps, shampoos, or other personal grooming chemicals into waterways.

Aviation Management

Aviation Use Guidelines

- If using buckets to drop water, use fresh water from ponds on the mainland if possible. If this is not an option due to time constraints, use brackish water from the sound.
- Aviation crews will count the number of buckets that were brackish water. If any fresh water from the island was used, those need to be counted also.
- Maximize back haul flights as much as possible.
- Use long line remote hook in lieu of constructed helispots for delivery or retrieval of supplies and gear if possible.
- Take precautions to ensure noxious weeds are not inadvertently spread through the deployment of cargo nets and other external loads.
- Use predetermined helispots and LZ's when possible.
- Use natural openings for helispots and para-cargo landing zones as far as practical. If construction is necessary, avoid high visitor use areas.
- Consider maintenance of existing helispots over creating new sites.
- Obtain specific instructions for appropriate helispot construction prior to the start of any ground work.

Retardant Use

While unlikely to be used at CUIS, retardant and tanker drops are an option for incident commanders. During initial attack, fire managers must weigh the non-use of retardant with the probability of initial attack crews being able to successfully control or contain a wildfire. If it is determined that use of retardant may prevent a larger, more damaging wildfire, then the manager might consider retardant use even in sensitive areas. This decision must take into account all values at risk and the consequences of larger firefighting forces' impact on the land.

- Any use of air tankers or retardant requires the CUIS Superintendent's approval. Consider impacts of water drops versus use of foam/retardant. If foam/retardant is deemed necessary, consider use of foam before retardant use.
- Keep retardant 300 feet from any body of water.
- Consult with resource advisors before retardant use if possible.

Changes Made During the 2025 FMP Update

- Updated Cover Page to Current FY25, made Neppl Reviewed/Recommended instead of just Recommended as per current NPS FMP framework.
- Standardized "Zone FMO" reference throughout the FMP.
- Section 1.0: Updated link to Wildland Fire Strategic Plan.
- Figure 3 – Updated to current map of SER Fire Management Zones.
- Section 1.1 Updated reference of JICA from Historical Site to Historical Park.
- Section 1.1 Updated WFDSS link to the new WFDSS NG.
- Section 1.3: updated project ID# to match current PEPC Memo for FY25.
- Section 1.5: removed reference to the CS Addendum, since it has been retracted.
- Section 3.1.2: Updated WFDSS text with required language from current NPS FMP Framework. Added updated Strategic Objectives and Requirements language that has been loaded into the Spatial Fire Planning Service.
- Section 3.5: Added reference and link to the 2025 GA Smoke Management Plan
- Section 4.3: Climate Change removed to align with current NPS FMP framework. (all 4.4 Evaluations, Review and Updates moved to 4.3)
- Appendix A: Annual Delegation of Authority: Updated by removing Acting from FMO
- Appendix D-1: Updated the FWOAD due to switch to FEMS weather data.
- Appendix D-2: Updated the Preparedness Level Plan with current FWOAD breakpoints.
- Appendix D-3: Updated the Staffing Plan with current FWOAD breakpoints.
- Appendix D-4, Table 3. Emergency Contact List: Updated names and numbers for currency, added regional staff.
- Appendix E: Added Fire and Prevention Plan as per current NPS FMP Framework
- Appendix F: Multi Year Fuels Treatment Plan: Updated treatment years and removed Map of planned mechanical work.