JEKYLL ISLAND

COMMUNITY WILDFIRE PROTECTION PLAN 2023

CONTENTS

PREFACE

The extreme weather conditions that are conducive to wildfire disasters (usually a combination of extended drought, low relative humidity, and high winds) can occur in this area of Georgia as infrequently as every 10-15 years. This is not a regular event, but Jekyll Island is first and foremost a State Park for the people of Georgia. Development limitations and the abundance of forested communities adjacent to those developments, can turn a wildfire under these weather conditions into a major disaster. Wildfires move fast and can quickly overwhelm the resources of even the best equipped fire department. Advance planning can save lives, homes and businesses.

This Community Wildfire Protection Plan (CWPP) includes a locally assessed evaluation of the wildland urban interface areas of the county, looking at the critical issues regarding access to these areas, risk to properties from general issues such as building characteristics and "fire wise" practices and response from local firefighting resources. It further incorporates a locally devised action plan to mitigate these risks and hazards though planning, education and other avenues that may become available to address the increasing threat of wildland fire. The CWPP does not obligate the authority financially in any way, but instead lays a foundation for improved emergency response if and when grant funding is available to the island.

Since 2019, Jekyll Island has fallen under the umbrella of Glynn County's CWPP, of which JIA were stakeholders in its development. Jekyll Island has its own unique set of challenges necessary to develop its own CWPP to address. The plan was developed internally amongst Jekyll Island Authority Departments by combining several past documents, studies, and public comments then ran through multiple stakeholder reviews to serve as a living, adaptable guidance document for preventing and controlling wildfire on Jekyll Island. It also has applications to apply for hazard mitigation grant funds through the National Fire Plan, FEMA mitigation grants and Homeland Security. Under the Healthy Forest Restoration Act (HFRA) of 2003, communities (counties) that seek grants from the federal government for hazardous fuels reduction work are required to prepare a Community Wildfire Protection Plan

This plan will:

- **Enhance public safety**
- **Raise public awareness of wildfire hazards and risks**
- **Educate homeowners on how to reduce home ignitability**
- **Build and improve collaboration at multiple levels**

The public does not have to fall victim to this type of disaster. Homes (and communities) can be designed, built and maintained to withstand a wildfire even in the absence of fire equipment and firefighters on the scene. It takes planning and commitment at the local level before the wildfire disaster occurs and that is what the Community Wildfire Protection Plan is all about.

INTRODUCTION

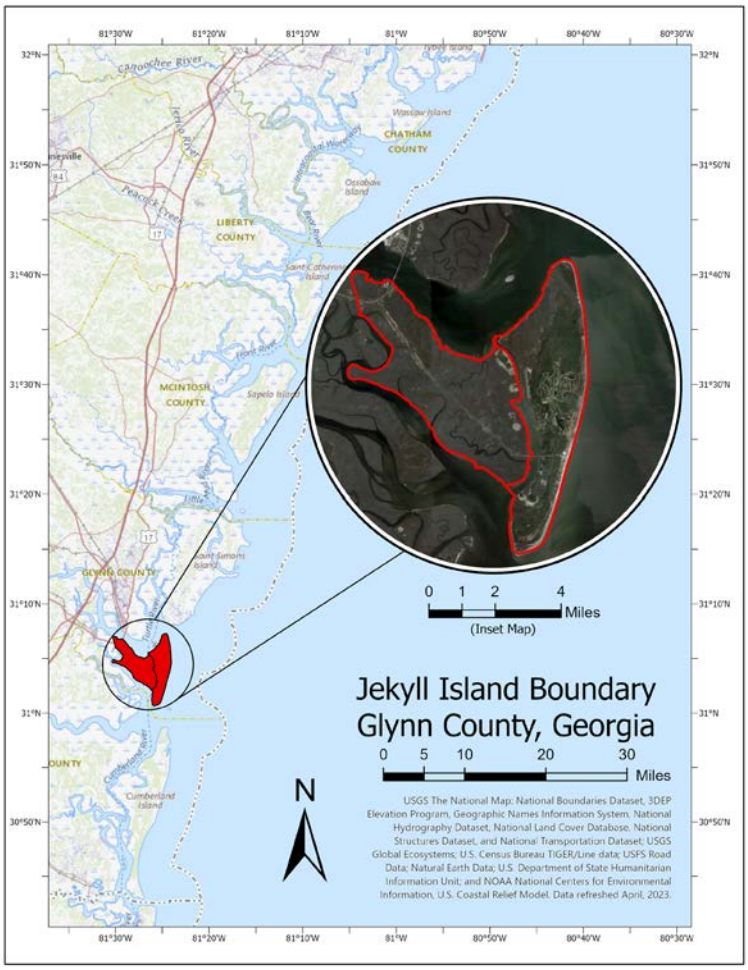
This Community Wildfire Protection Plan (CWPP) is a product of the Jekyll Island Authority, a self-supporting state entity responsible for the management and stewardship of Jekyll Island, Georgia. This CWPP has been developed for Jekyll Island to provide guidance to staff and stakeholders in assessing and developing strategies to mitigate wildfire risks within the community and has been completed in accordance with the guidelines provided by the Federal Emergency Management Agency (FEMA). The implementation of this plan aims to protect lives, property, and natural resources from the threat of wildfires. This is intended to be a living document that can be easily understood and used as a resource to build a more resilient community and state park.

ENVIRONMENTAL SETTING

1. ENVIRONMENTAL SETTING

1.1. LOCATION AND GEOGRAPHY

Jekyll Island, located in Glynn County, Georgia, is the westernmost barrier island on the eastern seaboard of the United States (Figure 1). The island spans approximately 7 miles in length and 1.5 miles in width, encompassing a total area of about 6400 acres, with approximately 4500 acres of upland. The island and surrounding estuarine marshes are shaped by twice-daily tidal fluctuations of approximately 6 to 8 feet and influenced by outflows of freshwater from the Satilla, Little Satilla, Turtle/Brunswick, and Altamaha watersheds.



1.2. CLIMATE

The coastal Georgia mainland is hot and humid in the summer, but the barrier islands are typically cooled by sea breezes. Winters are cool, with occasional brief cold spells. Rainfall averages slightly less than 50 inches a year, with a disproportionately heavy distribution between June and September, often with the occurrence of lightning during afternoon thunderstorms. Jekyll Island is in the 91st percentile of lightning risk according to the FEMA National Risk Index. Furthermore, according to the US Drought Monitor data, Glynn County experiences D3-D4 level drought conditions every 5-7 years, with the most recent ending in 2013. Due to the proximity to the Atlantic Ocean, offshore winds including the Bermuda high interacting with weather fronts often result in micro-scale localized droughts on Jekyll Island that aren't apparent in county or regional drought data. This discrepancy in data and forecasting has led to extra time spent evaluating fuels and conditions regardless of local county information. Hurricanes and tropical storms have influenced the ecosystems that exist in coastal Georgia over large time scales, with a slight uptick in the last decade over the previous three decades. Four named storms have caused significant tree fall, habitat alteration, saltwater inundation, and infrastructure damage since 2016. North Atlantic Hurricane Activity Forecasts predict increased activity within the next 5-year projection window. Such events encourage increased tree mortality, resulting in more ladder fuel that increases the risk of extremely intense crown fires during low humidity conditions.

COMMUNITY OVERVIEW

2. COMMUNITY OVERVIEW

2.1. HISTORY AND ATTRACTIONS

Jekyll Island is known for its natural beauty, abundant wildlife, and historic past as a retreat for America's wealthiest families. It is home to the Jekyll Island Club Historic District, featuring grand mansions and the renowned Jekyll Island Club Hotel. Since 1947, Jekyll Island has been managed by the Jekyll Island State Park Authority, operating as a financially self-sufficient entity. Jekyll Island State Park hosts a variety of leisure hospitality businesses, publicly accessible amenities, and nature-based recreation opportunities.

2.2. POPULATION AND TOURISM

Jekyll Island has a residential population of approximately 1,200 people with a median income slightly below the state average and a median age significantly higher than the state average. The island attracts 3.5 million visitors annually. Tourism plays a pivotal role in the island's economy, contributing significantly to its financial well-being as a self-sustaining state park. The annual economic impact of tourism on Jekyll Island exceeds $1 billion, making it a crucial driver of the regional economy. Jekyll Island's unique blend of residential population and a thriving tourist industry creates a harmonious balance.

FIRE HISTORY

3. FIRE HISTORY

3.1. GEORGIA

Georgia has a significant history of managing wildfire, with an average of over 2,300 fires occurring annually and an average size of 7 acres. The Georgia Forestry Commission (GFC) is responsible for wildfire suppression throughout the state and has personnel prepared to respond or help with wildfire incident response when necessary. More than half of the wildfires in Georgia are the result of careless burning of yard debris, highlighting the importance of responsible fire management practices and public awareness. To proactively manage wildfires, the Georgia Department of Natural Resources (GADNR) has been actively conducting prescribed fire operations at various state-owned properties, approaching approximately 1 million acres annually for prescribed burns, demonstrating the agencies positive support for wildfire management and wildfire risk reduction. These efforts by the GFC and GADNR are crucial in mitigating the impact of wildfires and protecting Georgia's natural resources. However, continued vigilance and community participation are necessary to ensure effective fire prevention and suppression measures are in place, particularly in areas that fall within the Wildlife Urban Interface (WUI), such as Jekyll Island, that require quicker response than emergency response agencies can sustain.

3.2. GEORGIA BARRIER ISLANDS

Dry conditions in spring and early summer provide conditions that increase the risk of wildfire on GA coastal barrier islands. Combined with exacerbated dry conditions from proximity to the Bermuda high, occurrence of La Nina, or other weather phenomenon along the barrier island coast, the risks can far exceed what is experienced on mainland locations. It is not uncommon for storm fronts approaching the coast from mainland locations to encounter coastal winds that suppress rainfall, but do not stop lightning from striking as they progress eastward. Further complicating suppression efforts are the logistic challenges of getting support to coastal locations to suppress fires once started by lightning strikes. Two recent fires summarize the risks confronted by Georgia barrier islands:

1) On June 29th, 2019, several cloud to ground lighting strikes ignited fire during a light rain event on Cumberland Island just south of Jekyll during drought conditions. The fire was considered contained on July 10th and considered fully extinguished on August 2nd. Over 400 acres were estimated to have burned.

2) On June 11th, 2022, cloud to ground lighting ignited wildfires in multiple locations on St. Catherines Island during drought conditions and a period of lower-than-average humidity. The fire was contained on June 27th and out by July 5th. The St. Catherines wildfire ultimately consumed 2,200 acres before it was contained and went out when significant rainfall took place.

Both incidents took place within 35 miles of Jekyll, lasted for nearly a month, involved major logistic challenges, and resulted in net negative impacts on visitation and operations. These examples of accelerated wildfire coverage and their duration on barrier islands during drought conditions provide valuable lessons for preparations and precautions that can be implemented on Jekyll Island to mitigate risks to critical infrastructure and globally imperiled habitats such as maritime forests. Should a wildfire of similar magnitude take place on Jekyll Island during dry conditions, it could devastate our operations, economy, and likely displace residents, guests, and staff.

3.3. JEKYLL

Each year lightning fires are ignited on Jekyll Island. Fortunately, all fires in the past decade have been contained by the JIA Fire department very quickly as they are spotted or called in. There is also evidence of small fires that have started from lighting strike ignition in the forests under wet conditions, which limited the spread of fire and went out naturally on their own, underscoring the frequency that lighting strikes occur on Jekyll Island. Since its inception as a state park in the 1950s, fires have been suppressed throughout extensive areas of contiguous tracts of maritime forests on Jekyll Island. This prolonged period of fire suppression has led to an increased potential for catastrophic wildfires as duff, dead above-ground biomass, and dense vegetation have accumulated. To address the existing wildfire risk, a Prescribed Fire Management Program was initiated in 2014. However, thus far the program has primarily focused on smaller patches of manageable forests, serving the dual purpose of fostering community rapport, Fire-Wise community awareness, improving staff training, and capacity building. Up to this point, the program has successfully executed nearly 100 prescribed fire operations in the interest of fuel reduction while maintaining a strong emphasis on safety. Even with the amount of successful prescribed fire operations, some habitats and locations require preparations and specialized equipment we do not currently possess. Having successfully enhanced community support for prescribed fire, increased staff training, and broadened capacity, the Jekyll Conservation and Public Safety Departments require more tools and equipment to manage large tracts of forest within close proximity to urban infrastructure to further mitigate wildfire risks.

Jekyll 2017 Entrance Fire: Within the past ten years, Jekyll Island has encountered three wildfires of notable concern, necessitating the intervention of external resources from the Georgia Forestry Commission (GFC). Among these incidents, the most noteworthy occurred in May of 2017 at the sole ingress/egress point to Jekyll Island. The fire originated from a lightning strike, initially igniting a relatively contained forested block surrounded by roads. Our local fire department was quick to respond. However, due to prevailing wind and drought conditions the fire spread rapidly, bypassing 1/4 of a mile via wind-blown embers, to the other side of a major road network in an adjacent forested area that bordered infrastructure. Fortuitously and coincidentally, the Georgia State Patrol (GSP) happened to be conducting aerial fire suppression training on the island using rotary winged aircraft, enabling them to promptly respond and effectively contain the wildfire. If we had relied on GFC alone with their current fastest response time (1.5-2hrs), we would have lost significant habitats and likely called upon our local fire department to focus on infrastructural protection. In summary, given the situation presented to first responders, we couldn't have been luckier, and we can't possibly count on having such assets coincidentally available when the next wildfire incident takes place. Even though the impact area was less than 13 acres, we were still impacted by smoke management issues for over a week. Following the May 2017 entrance fire, we have taken steps to increase the use of prescribed fire during favorable conditions to reduce the risk stand altering and infrastructure threatening fires in the future. This event demonstrated to us that tools and specialized equipment are urgently needed to suppress, manage, and mitigate wildfire risks on Jekyll Island.

KEY CONTRIBUTORS & PARTNERS

4. KEY CONTRIBUTORS & PARTNERS

4.1. JEKYLL ISLAND FIRE DEPARTMENT (JIFD)

The Jekyll Island Fire Department provides fire and emergency medical services to the entire island, protecting lives and infrastructure from fire threats. They work closely with other stakeholders to mitigate wildfire risks and ensure public safety.

4.2. JEKYLL ISLAND CONSERVATION DEPARTMENT

The Jekyll Island Authority (JIA) Conservation Department plays a crucial role in decision-making, operational capacity, and preserving the island's natural assets. They lead prescribed wildland activities, including prescribed fire management in coordination with the JIFD.

4.3. GEORGIA FORESTRY COMMISSION (GFC)

The GFC is the primary state agency responsible for wildfire prevention and suppression. They support rural fire departments, assist landowners and communities with forest management, and serve as incident commanders during large wildfires on Jekyll Island..

4.4. INTERAGENCY BURN TEAM (IBT)

The IBT consists of various cooperators, including government agencies, nonprofit organizations, and partners working together to accomplish prescribed fire goals statewide. Formal partnerships are established through official memorandums of understanding (MOUs).

4.5. GEORGIA STATE PATROL (GSP)

The GSP are the local law enforcement agency tasked with patrolling Jekyll Island, providing traffic control, and assisting with early detection and evacuations. They occasionally have resources available to provide aerial fire support through agency helicopters.

RISK ASSESSMENT

5. RISK ASSESSMENT

5.1. WILDFIRE RISK

5.1.1. OVERVIEW

1. A priority for fire management agencies is always to protect human life, property, and critical infrastructure above all else. In recent decades, the lack of resources and ill-advised wildfire suppression policies have led to agencies across the US struggling to manage vulnerable forest ecosystems and make up for lost time.

2. Jekyll Island is no different. Until 2014 prescribed fire efforts had not been utilized since the historic Jekyll Island Club days, pre-1950. The partnership between the JIFD and the JIA Conservation Department has reprioritized the best management practices for Jekyll's iconic forests, while still aiming to protect human life and property. Understanding the wildfire risk on Jekyll is the first step to addressing the resource and cultural thought issues surrounding forestry management.

3. Human-caused fire ignition is rapidly increasing across the United States. It has been estimated by the National Park Service that humans cause upwards of 85% of all wildfires. Jekyll has ordinances against fireworks, open-burning, and grill locations, but there will always be a risk of intentional or unintentional human-caused ignition. The likelihood of human-caused fires will only increase as visitation increases, and Jekyll has seen regular increases over the past 10 years, surpassing 3.5 million visitors in 2022. The majority of these guests visit Jekyll during the driest seasons of the year, further increasing ignition likelihood.

5.1.2. WILDLAND URBAN INTERFACE

1. The wildland-urban interface (WUI) is a zone of transition between undeveloped wildland and human development. It is commonly defined as an area where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels. However, the National Wildfire Coordinating Group has defined the WUI as a set of conditions that exist in or near areas of wildland fuels, regardless of ownership. This set of conditions includes types of vegetation, building construction, accessibility, lot size, topography, and other factors such as weather and humidity. When these conditions are present in certain combinations, they make some communities more vulnerable to wildfire damage than others.

2. The "set of conditions" method is perhaps the best way to define WUI areas when planning for wildfire prevention, mitigation, and protection activities. This is because it accounts for all the factors that can contribute to wildfire risk, not just the presence of structures and wildland fuels. By understanding these conditions, communities can take steps to reduce their risk of wildfire damage.

3. Here are some specific examples of how the "set of conditions" method can be used to define WUI areas:

1) Areas of development where homes, or subdivisions, and commercial structures press against wildlands, such as forests. This is the classic type of wildland-urban interface, with a clearly defined boundary between the urban fringe and the undeveloped forests.

2) Areas where improved property and/or structures are scattered and interspersed in wildland areas. These may be isolated homes or critical infrastructure that are not buffered from the maritime forests or grasslands.

3) A community with a lot of recreational activities, such as hiking and camping, would be more likely to have people in the area who are not familiar with wildfire safety, making it a higher risk area.

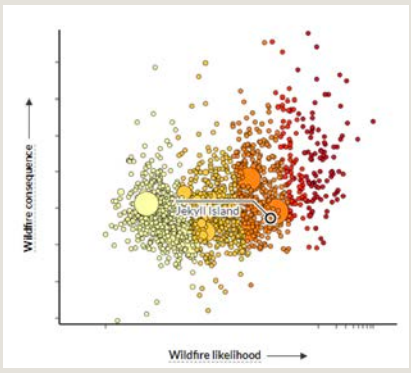
4. By understanding the "set of conditions" that contribute to wildfire risk, communities can take steps to reduce their risk of damage. This includes things like clearing away flammable vegetation, building homes with fire-resistant materials, and creating evacuation plans. By taking these steps, JIA can help to keep its residents safe from the threat of wildfire.

5.1.3. WILDFIRERISK.ORG

According to Wildfirerisk.org, Jekyll Island has a high risk of wildfire – higher than 86% of communities in the Unites States. The four main factors for this rating are: 1) the High risk to homes, 2) High wildfire likelihood, 3) Very High direct or indirect exposure, and 4) a Very High disproportionate impact to vulnerable populations. By using Wildfirerisk.org's data along with risk indices for Jekyll's 29 vegetative communities, we have created a risk map specific to non-developed areas on the island

USDA FOREST SERVICE DEPARTMENT OF AGRICULTURE

WILDFIRE RISK TO COMMUNITIES



RISK TO HOMES

Risk to homes measures the relative consequence of wildfire to residential structures everywhere on the landscape, whether a home actually exists there or not. This allows us to consider wildfire risk in places with homes in addition to places where new construction is proposed.

WILDFIRE LIKELIHOOD

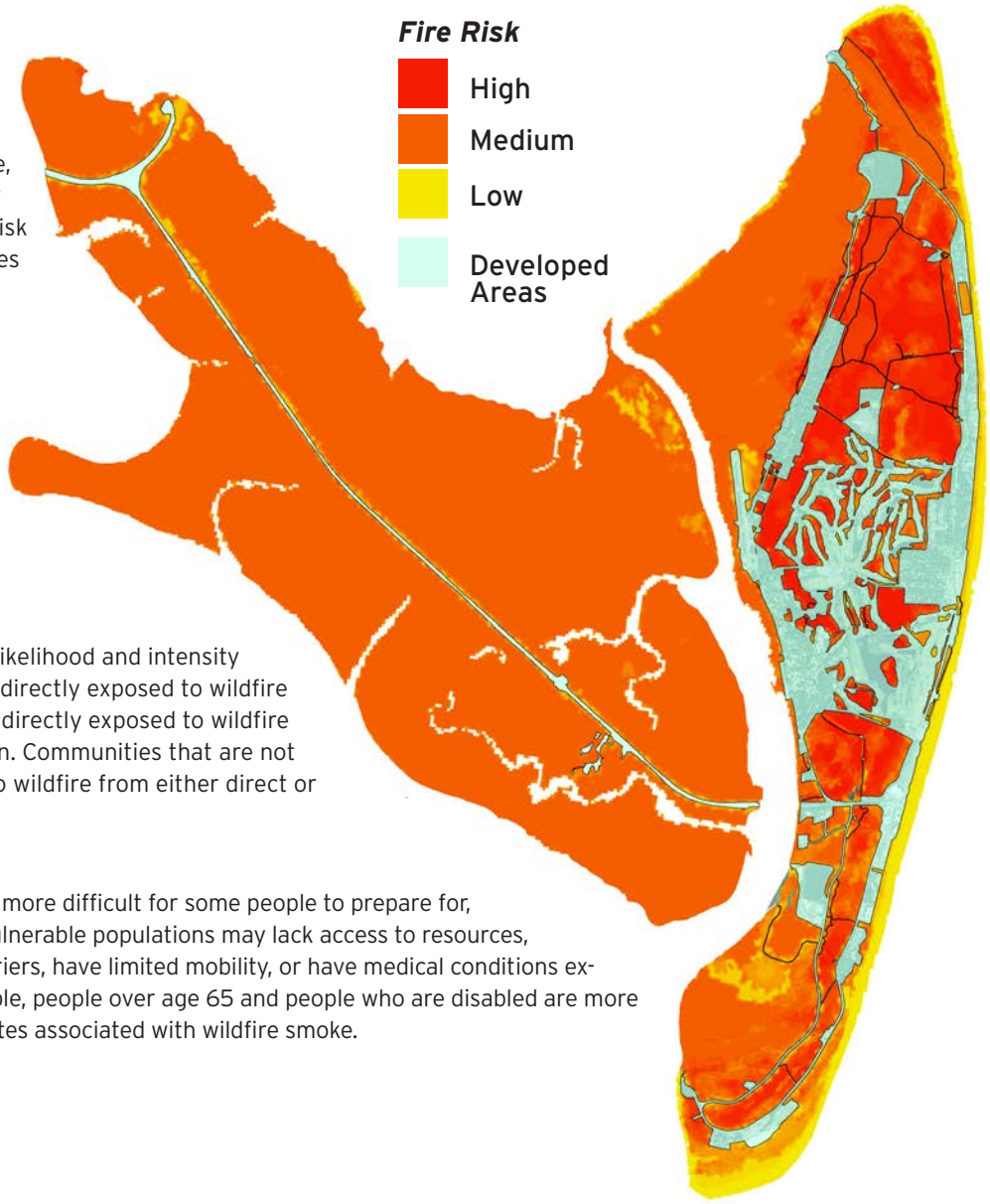
Wildfire likelihood is the probability of wildfire burning in any given year. At the community level, wildfire likelihood is averaged where housing units occur. Communities in all but the lowest classes need to be prepared for wildfire.

EXPOSURE

Exposure is the intersection of wildfire likelihood and intensity with communities. Communities can be directly exposed to wildfire from adjacent wildland vegetation, or indirectly exposed to wildfire from embers and home-to-home ignition. Communities that are not exposed are not likely to be subjected to wildfire from either direct or indirect sources.

VULNERABLE POPULATIONS

Social and economic factors can make it more difficult for some people to prepare for, respond to, and recover from wildfire. Vulnerable populations may lack access to resources, experience cultural and institutional barriers, have limited mobility, or have medical conditions exacerbated by stress or smoke. For example, people over age 65 and people who are disabled are more susceptible to air pollution and particulates associated with wildfire smoke.



5.1.4. USFS 2020 WILDFIRE HAZARD POTENTIAL

1. According to the Wildfire Potential Tool, created from employing models developed by the Rocky Mountain Research Station, portions of Jekyll Island vary from low-moderate up to high-very high depending upon the habitat within the model.

2. The tool itself was created to highlight places where vegetation treatments may be needed to reduce the intensity of future wildfires. It modeled risk associated with several categories including: 1) demographics and 2) exposure.

- Demographics - On a scale of 1 (Lowest) to 5 (Highest), the average wildfire hazard potential (WHP) score in this area is 3.75 indicating moderate to high risk. There are 957 people here within 948 total housing units. Higher average wildfire hazard potential (WHP) values represent fuels with a higher probability of experiencing torching, crowning, and other forms of extreme fire behavior.
- Exposure – The majority of the developed areas on Jekyll Island are either at High direct exposure risk or Moderate – High Indirect Exposure risk. Exposure deals with the combination of intensity and likelihood of wildfire and the proximity to known fuels.

5.2. CRITICAL INFRASTRUCTURE

1. Above-ground and below-ground critical infrastructure can be equally impacted by a significant wildfire event. Inventories of exact location and the assessment of hazard need to be completed and available in an accessible format such as maps. The level of hazard for public health to first responder safety must be known before any fire or management action can be undertaken. Sewer and water line locations are important for tractor and heavy equipment operators installing fire breaks to avoid compromising the system.

2. Critical Infrastructure may include:

- Powerlines
- Water Tower
- Lift Stations
- Sewer Lines - a few septic tanks
- Water Lines
- Historic Resources
- Communication Utilities (Internet, cable, etc.)
- Home/buried propane tanks
- Diesel or gas generators

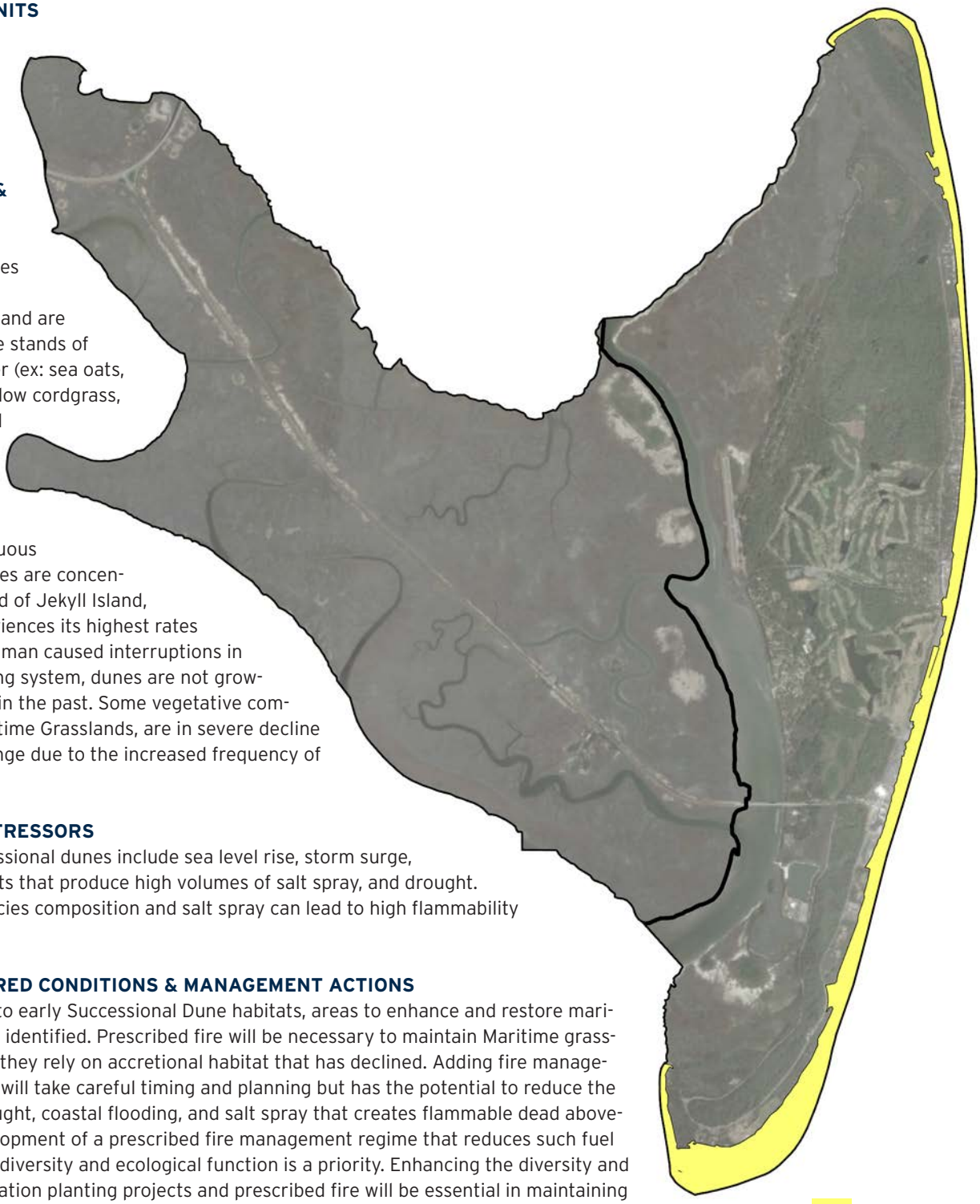
MANAGEMENT UNITS

6. MANAGEMENT UNITS

6.1. EARLY SUCCESSIONAL DUNES

6.1.1. CHARACTERISTICS & CURRENT CONDITIONS

Early successional dunes lie beyond the primary dune beach interfaces and are characterized by dense stands of grassland/ground cover (ex: sea oats, muhly grass, salt meadow cordgrass, and partridge pea) and scrub vegetation (ex: wax myrtle, red cedar, yaupon holly, and groundsel bush). Large blocks of contiguous early successional dunes are concentrated on the south end of Jekyll Island, where the island experiences its highest rates of accretion. Due to human caused interruptions in the coastal sand sharing system, dunes are not growing as fast as they did in the past. Some vegetative communities, such as Maritime Grasslands, are in severe decline across its historical range due to the increased frequency of coastal flooding.



Early Successional Dunes

6.1.2. THREATS & STRESSORS

Threats to early successional dunes include sea level rise, storm surge, extreme weather events that produce high volumes of salt spray, and drought. Tidal connectivity, species composition and salt spray can lead to high flammability of vegetative fuels.

6.1.3. FUTURE DESIRED CONDITIONS & MANAGEMENT ACTIONS

To counteract threats to early Successional Dune habitats, areas to enhance and restore maritime grasslands will be identified. Prescribed fire will be necessary to maintain Maritime grasslands long-term, since they rely on accretional habitat that has declined. Adding fire management in Dune habitats will take careful timing and planning but has the potential to reduce the threats caused by drought, coastal flooding, and salt spray that creates flammable dead aboveground biomass. Development of a prescribed fire management regime that reduces such fuel loads while increasing diversity and ecological function is a priority. Enhancing the diversity and density through restoration planting projects and prescribed fire will be essential in maintaining rare Early Successional Dune habitats.

6.2. HOLOCENE MARITIME FOREST

6.2.1. CHARACTERISTICS & CURRENT CONDITIONS

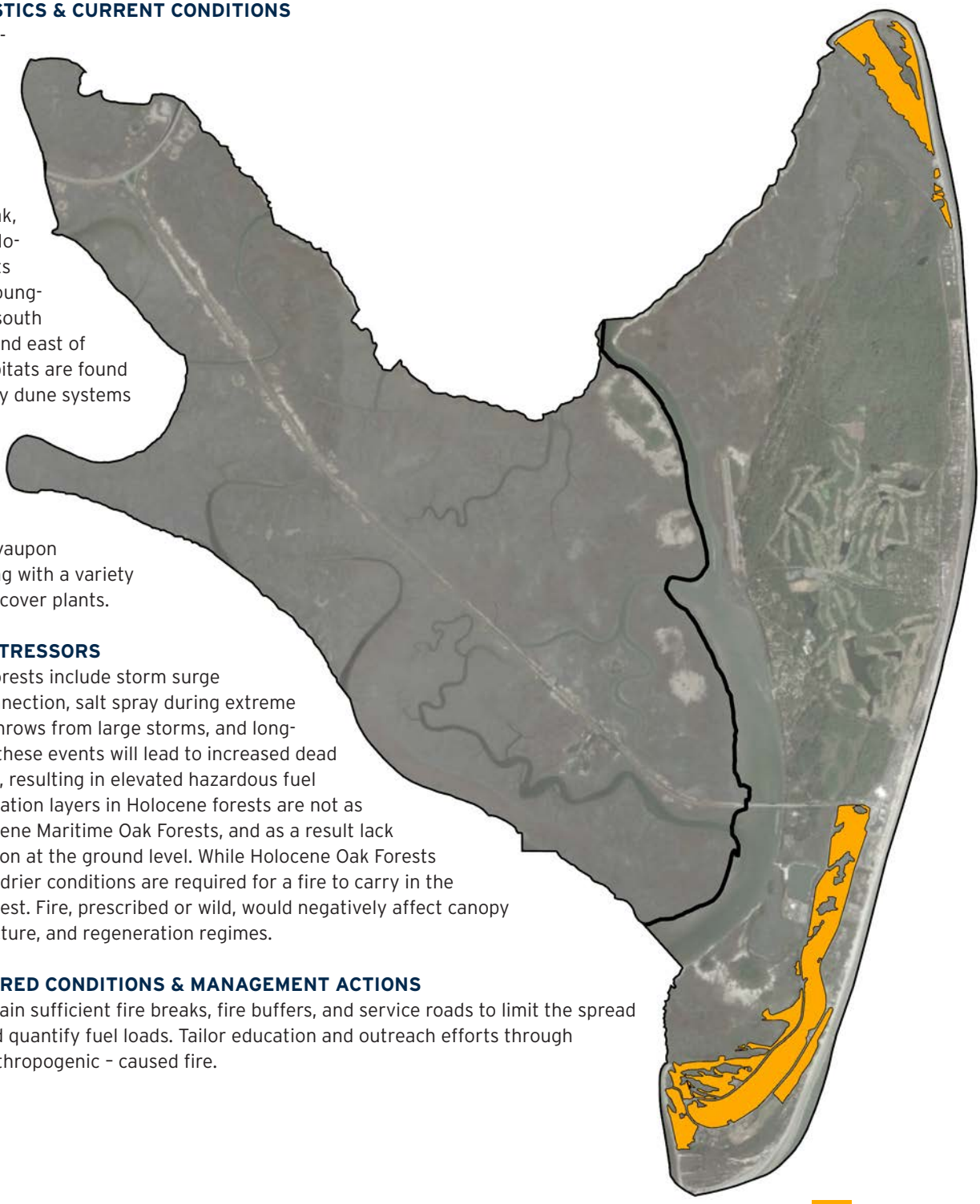
Holocene Maritime Forests are the next line of habitat succession following Early Successional Dunes. They are young establishing forests dominated by Live Oak, Sand Live Oak, and Darlington Oaks. Holocene Maritime Forests are restricted to the youngest part of the island, south of the main entrance and east of Clam Creek. These habitats are found just beyond the tertiary dune systems and are characterized by sandy soils, along with a variety of establishing shrubs including saw palmettos, beauty berry, yaupon holly, and red bay, along with a variety of herbaceous ground cover plants.

6.2.2. THREATS & STRESSORS

Threats to Holocene forests include storm surge depending on tidal connection, salt spray during extreme weather events, windthrows from large storms, and long-term drought. Any of these events will lead to increased dead above ground biomass, resulting in elevated hazardous fuel loads. The shrub vegetation layers in Holocene forests are not as established as Pleistocene Maritime Oak Forests, and as a result lack the density of vegetation at the ground level. While Holocene Oak Forests are at risk for wildfire, drier conditions are required for a fire to carry in the Holocene Maritime Forest. Fire, prescribed or wild, would negatively affect canopy composition, age structure, and regeneration regimes.

6.2.3. FUTURE DESIRED CONDITIONS & MANAGEMENT ACTIONS

To Establish and maintain sufficient fire breaks, fire buffers, and service roads to limit the spread of wildfire. Identify and quantify fuel loads. Tailor education and outreach efforts through Firewise to prevent anthropogenic – caused fire.

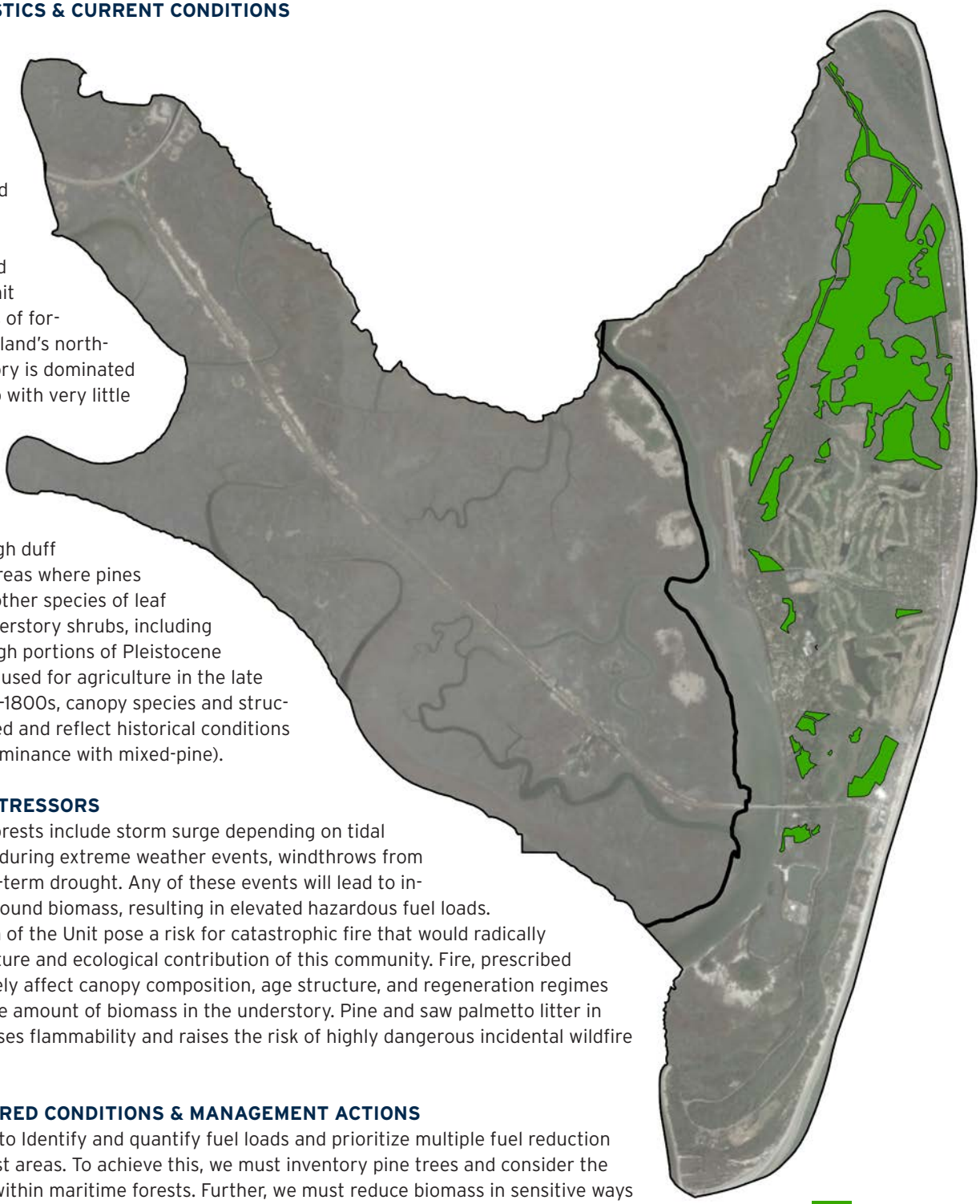


Holocene Maritime Forest

6.3. PLEISTOCENE MARITIME OAK FOREST

6.3.1. CHARACTERISTICS & CURRENT CONDITIONS

Pleistocene Maritime Forests are well established live oak forests located on the oldest tracts of land on the island, comprised of mature Live Oaks, Sand Live Oaks, and Laurel Oaks utilizing various conditions of biotic and abiotic factors. This Unit comprises large blocks of forested systems in the Island's northern area. The understory is dominated by dense saw palmetto with very little overall diversity, which creates exceptionally high vegetative fuel loads in the understory. Many of these areas contain high duff loads, particularly in areas where pines are encroaching, and other species of leaf litter deposited by understory shrubs, including saw palmettos. Although portions of Pleistocene Maritime Forests were used for agriculture in the late 1700s through the mid-1800s, canopy species and structure have re-established and reflect historical conditions (closed canopy, oak dominance with mixed-pine).



Pleistocene Maritime Oak Forest

6.3.2. THREATS & STRESSORS

Threats to Holocene forests include storm surge depending on tidal connection, salt spray during extreme weather events, windthrows from large storms, and long-term drought. Any of these events will lead to increased dead above ground biomass, resulting in elevated hazardous fuel loads. Fuel loads within much of the Unit pose a risk for catastrophic fire that would radically alter the canopy structure and ecological contribution of this community. Fire, prescribed or wild, would negatively affect canopy composition, age structure, and regeneration regimes of all oak trees with the amount of biomass in the understory. Pine and saw palmetto litter in this community increases flammability and raises the risk of highly dangerous incidental wildfire ignition.

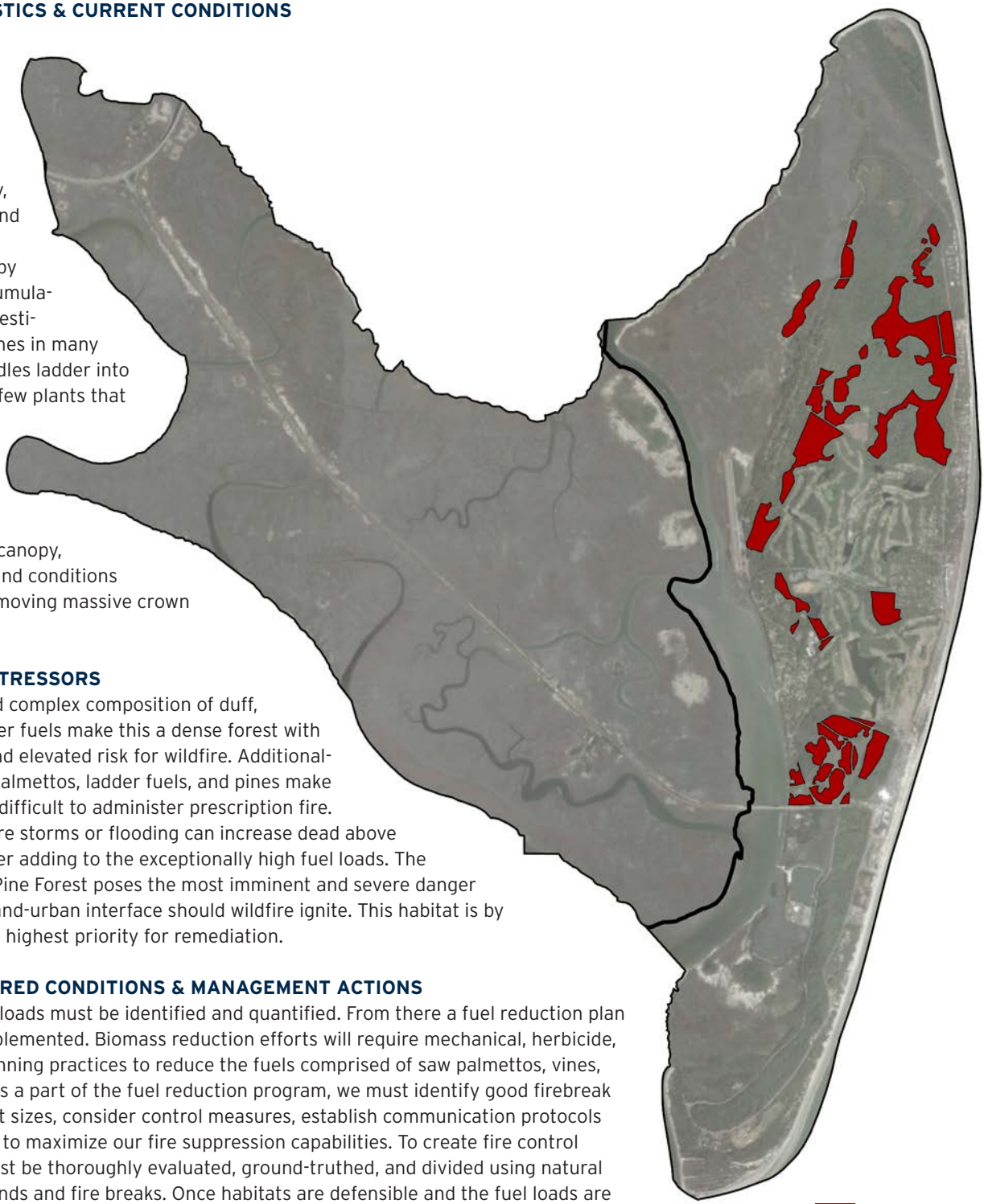
6.3.3. FUTURE DESIRED CONDITIONS & MANAGEMENT ACTIONS

The biggest priority is to Identify and quantify fuel loads and prioritize multiple fuel reduction measures in the riskiest areas. To achieve this, we must inventory pine trees and consider the potential for removal within maritime forests. Further, we must reduce biomass in sensitive ways to protect the ecological function of the community while increasing diversity and reducing fuel vegetative fuel loads. This may include using equipment or herbicide treatments to underbrush and remove saw palmettos and duff/leaf litter. Soil water availability can be evaluated to determine if hydraulic restoration could increase priority oak trees, live and sand live oaks, over less desirable laurel oak trees and pines.

6.4. PLEISTOCENE MARITIME PINE FOREST

6.4.1. CHARACTERISTICS & CURRENT CONDITIONS

Shortleaf pine trees dominate the landscape in the largest sections of contiguous forest remaining on Jekyll Island, including slash, loblolly, and rare pockets of pond pine trees. The understory is characterized by dangerously deep accumulations of duff, reaching estimated depth of 30 inches in many places where pine needles ladder into scrub vegetation. The few plants that can survive in duff are dense stands of saw palmettos and vines that create ladder fuels that connect the forest floor to the canopy, creating a fire ladder and conditions that would cause fast moving massive crown fires.



Pleistocene Maritime Pine Forest

6.4.2. THREATS & STRESSORS

The shear biomass and complex composition of duff, feeder, roots, and ladder fuels make this a dense forest with low ecological value and elevated risk for wildfire. Additionally, the density of saw palmettos, ladder fuels, and pines make this habitat especially difficult to administer prescription fire. Windthrows from severe storms or flooding can increase dead above ground biomass, further adding to the exceptionally high fuel loads. The Pleistocene Maritime Pine Forest poses the most imminent and severe danger to Jekyll Island's wildland-urban interface should wildfire ignite. This habitat is by far the riskiest and the highest priority for remediation.

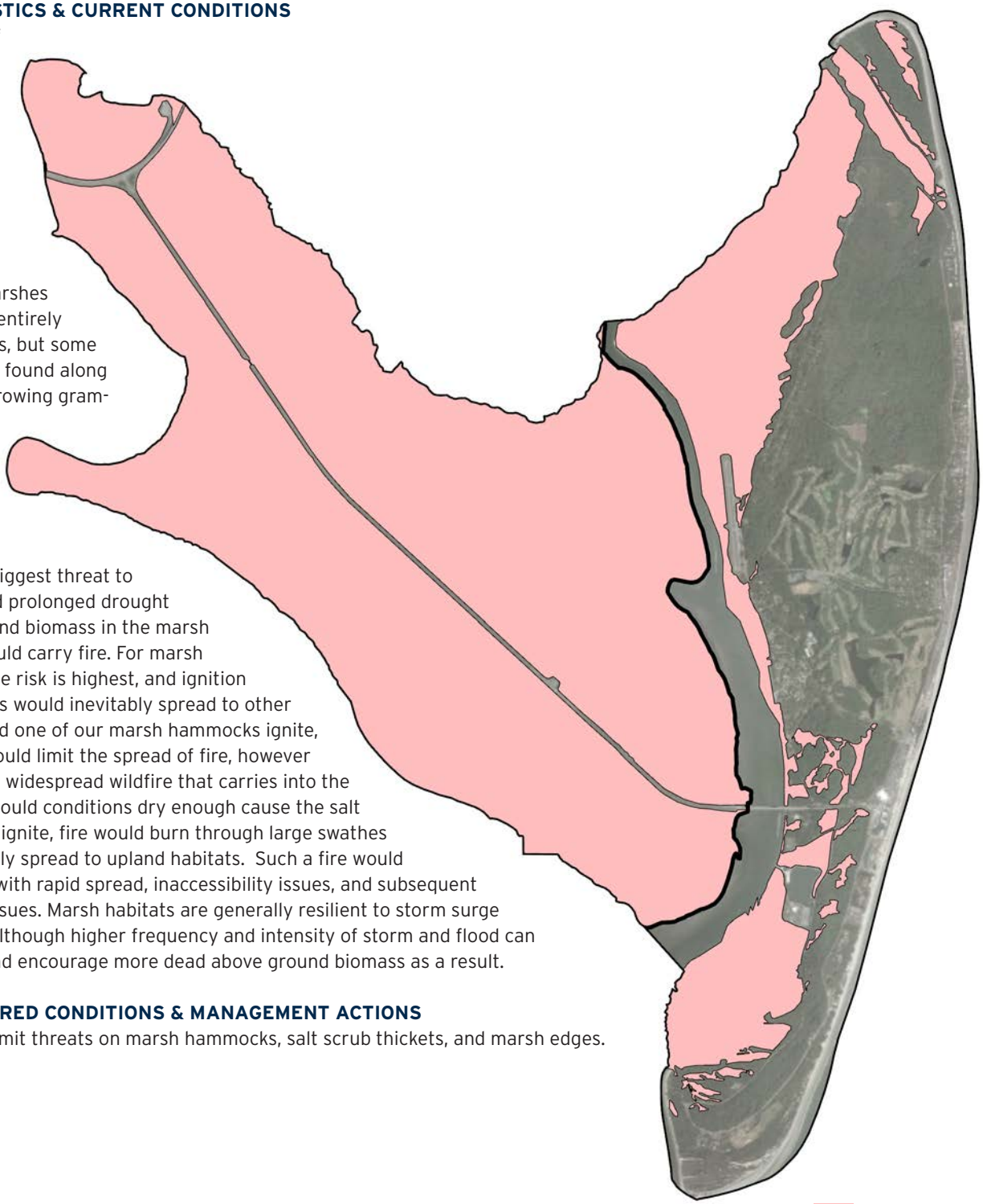
6.4.3. FUTURE DESIRED CONDITIONS & MANAGEMENT ACTIONS

Most importantly, fuel loads must be identified and quantified. From there a fuel reduction plan can be drafted and implemented. Biomass reduction efforts will require mechanical, herbicide, and prescribed fire thinning practices to reduce the fuels comprised of saw palmettos, vines, duff, and even pines. As a part of the fuel reduction program, we must identify good firebreak locations, optimize unit sizes, consider control measures, establish communication protocols for adjacent residents, to maximize our fire suppression capabilities. To create fire control measures, habitats must be thoroughly evaluated, ground-truthed, and divided using natural features such as wetlands and fire breaks. Once habitats are defensible and the fuel loads are quantified, thinning and prescribed fire may proceed where and when appropriate. Additionally, forest health response protocols in the event of canopy loss due to fire, pests, or disease is needed. Should such an event take place, we will need to selectively and sensitively remove dead canopy-tree biomass, following tree die-offs, to reduce fuel loads, and potentially replant with appropriate native species.

6.5. COASTAL MARSH

6.5.1. CHARACTERISTICS & CURRENT CONDITIONS

High marsh consists of hammocks surrounded by salt marsh, salt scrub thicket dominated by short shrubs, and forested edges of marsh dominated by a gradient of vegetation species. High marsh habitats are the most likely to ignite. Low marshes are comprised almost entirely of salt marsh cordgrass, but some areas, especially those found along edges consist of low growing graminoids such as black needle rush and salt grass.



Coastal Marsh

6.5.2. THREATS & STRESSORS

Drought is the single biggest threat to marsh habitats. Should prolonged drought take place, above ground biomass in the marsh would increase and could carry fire. For marsh edges scrub thicket, the risk is highest, and ignition in one of these habitats would inevitably spread to other nearby habitats. Should one of our marsh hammocks ignite, favorable conditions could limit the spread of fire, however drought could result in widespread wildfire that carries into the low marsh habitats. Should conditions dry enough cause the salt and brackish marsh to ignite, fire would burn through large swathes of marsh and potentially spread to upland habitats. Such a fire would challenge responders with rapid spread, inaccessibility issues, and subsequent smoke management issues. Marsh habitats are generally resilient to storm surge and coastal flooding, although higher frequency and intensity of storm and flood can degrade the habitat and encourage more dead above ground biomass as a result.

6.5.3. FUTURE DESIRED CONDITIONS & MANAGEMENT ACTIONS

Prescribed fire could limit threats on marsh hammocks, salt scrub thickets, and marsh edges.

6.6. FRESHWATER & EPHEMERAL WETLANDS

6.6.1. CHARACTERISTICS & CURRENT CONDITIONS

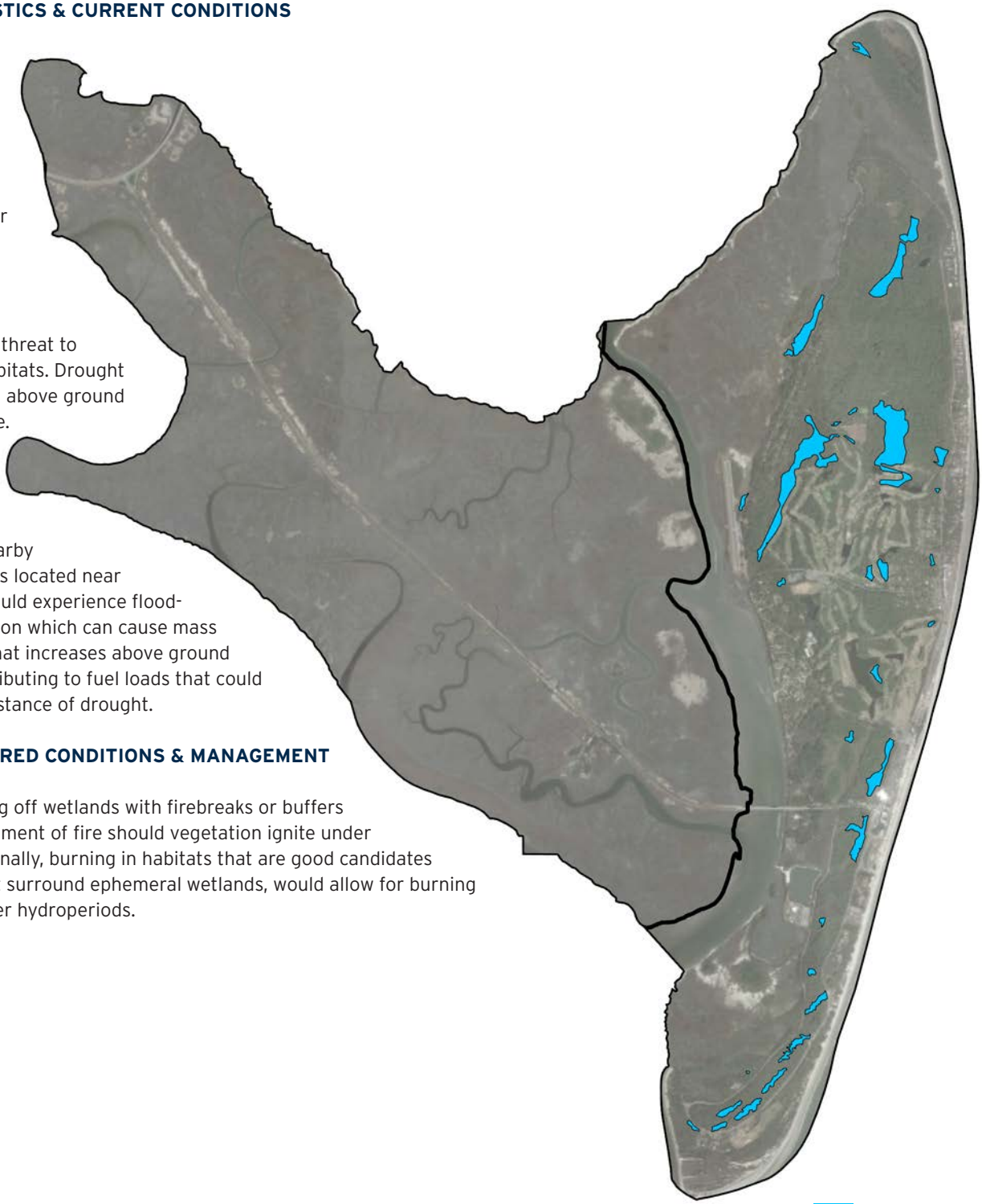
Natural wetlands on Jekyll Island are ephemeral, and are comprised of highly flammable plants such as gall berry, river cane, saw palmetto, maiden cane, and other graminoid species.

6.6.2. THREATS & STRESSORS

Drought is the biggest threat to ephemeral wetland habitats. Drought conditions create dead above ground biomass that can ignite. Given the nature of wetlands during drought conditions, such an ignition can carry over to other nearby habitats. Some habitats located near salt marsh or ocean could experience flooding or saltwater intrusion which can cause mass vegetation die off of that increases above ground biomass, further contributing to fuel loads that could ignite without the assistance of drought.

6.6.3. FUTURE DESIRED CONDITIONS & MANAGEMENT ACTIONS

In the future, cordoning off wetlands with firebreaks or buffers would inhibit the movement of fire should vegetation ignite under dry conditions. Additionally, burning in habitats that are good candidates for prescribed fire that surround ephemeral wetlands, would allow for burning of wetlands during drier hydroperiods.

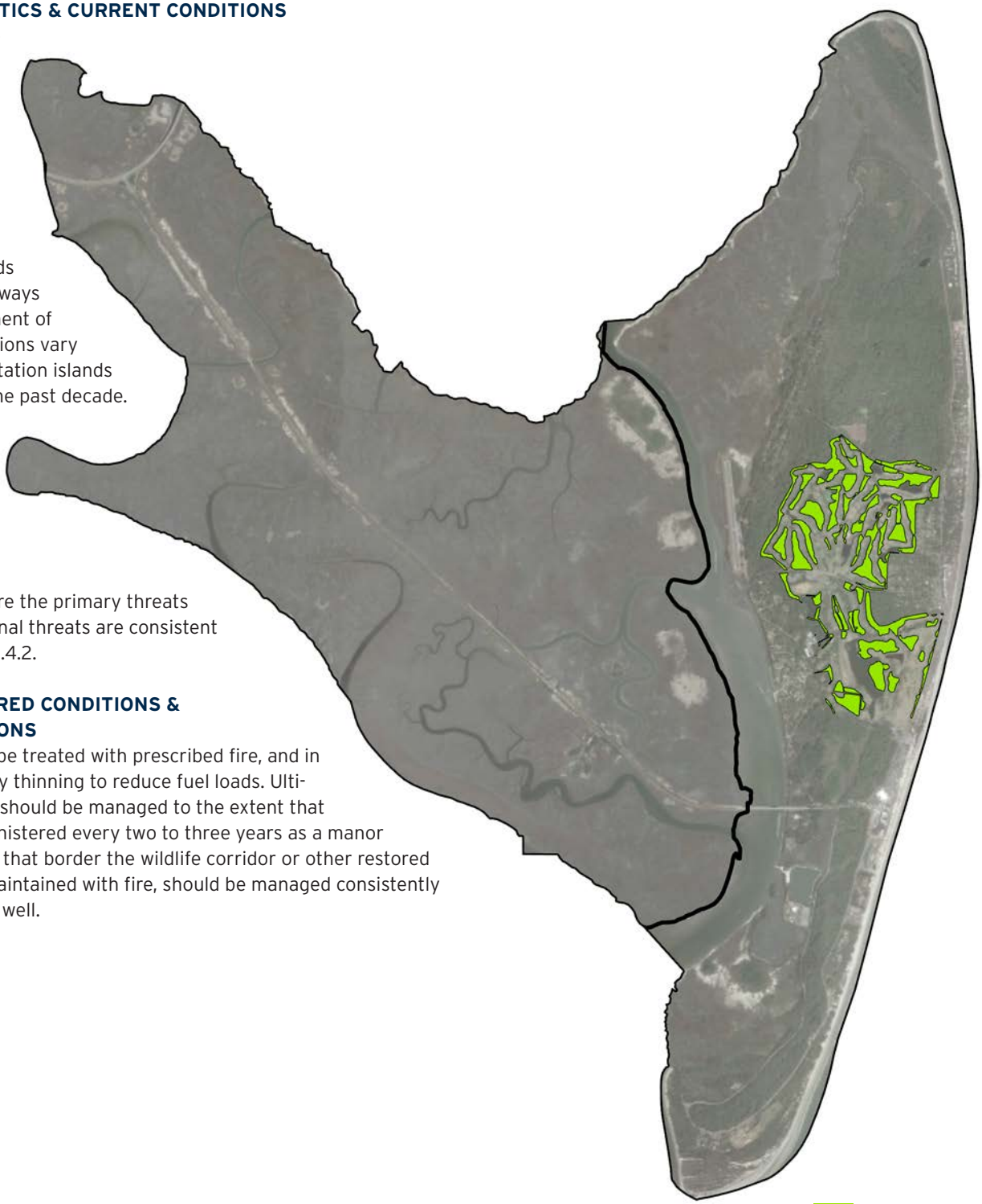


Freshwater & Ephemeral Wetlands

6.7. GOLF COURSE PATCHES

6.7.1. CHARACTERISTICS & CURRENT CONDITIONS

Golf course islands are isolated patches dominated by mixed pine and oak canopy with dense undergrowth and ladder fuel in the form of vines from decades of non-management. Importantly, these vegetation islands are surrounded by fairways that inhibit the movement of fire. Understory conditions vary widely as several vegetation islands have been burned in the past decade. In 2020 one patch was ignited by a lightning strike fire that was promptly put out.



Golf Course Patches

6.7.2. THREATS & STRESSORS

Drought and wildfire are the primary threats to this habitat. Additional threats are consistent with sections 6.3.2 & 6.4.2.

6.7.3. FUTURE DESIRED CONDITIONS & MANAGEMENT ACTIONS

These patches should be treated with prescribed fire, and in some cases, understory thinning to reduce fuel loads. Ultimately, these habitats should be managed to the extent that prescribed fire is administered every two to three years as a manor of maintenance. Areas that border the wildlife corridor or other restored habitats that will be maintained with fire, should be managed consistently with prescribed fire as well.

6.8. URBAN & PARKS (RESIDENTIAL, COMMERCIAL, BUSINESS, & INFRASTRUCTURE)

6.8.1. CHARACTERISTICS & CURRENT CONDITIONS

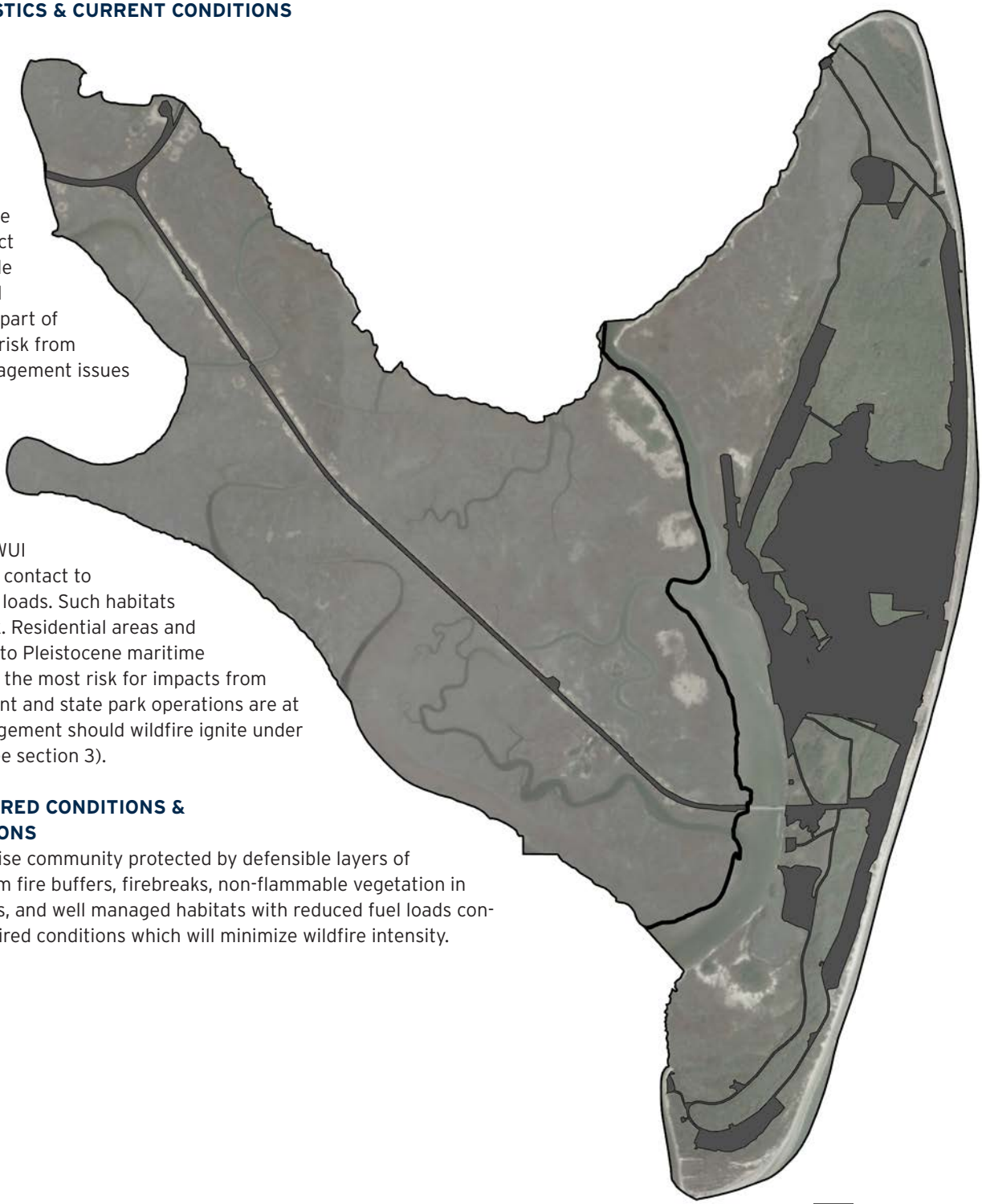
Conditions of development vary by location and type of development. Some areas are more defensible with lawns, parking lots, or buffers around them. Other areas are in close proximity, or even direct contact, with flammable vegetation. Residential areas on the northern part of the island are most at risk from wildfire or smoke management issues arising from wildfire.

6.8.2. THREATS & STRESSORS

Developed areas can be threatened by wildfire where the WUI is in close proximity or contact to habitats with high fuel loads. Such habitats are categorized by risk. Residential areas and infrastructure nearest to Pleistocene maritime and pine forests are at the most risk for impacts from wildfire. All development and state park operations are at risk from smoke management should wildfire ignite under drought conditions (See section 3).

6.8.3. FUTURE DESIRED CONDITIONS & MANAGEMENT ACTIONS

Jekyll Island is a Firewise community protected by defensible layers of protection ranging from fire buffers, firebreaks, non-flammable vegetation in contact with structures, and well managed habitats with reduced fuel loads consistent with future desired conditions which will minimize wildfire intensity.



Urban & Parks

MITIGATION

7. MITIGATION

7.1. GENERAL

Human activities have significantly impacted natural processes in both regional and local environments, leading to alterations in natural settings. The suppression of fire is particularly noteworthy, creating a major disturbance in the natural landscape which has influenced the composition of plant and animal communities across various habitats. Wildfires, whether caused by natural (i.e., lightning strike) or human processes, have played a crucial role in sustaining biodiversity in Georgia for thousands of years while simultaneously limiting unnaturally large fuel loads. The timing, scale, frequency, and intensity of these fires varied across different parts of the state, contributing to the diversity of natural communities and species in the area. During the 20th century, technology and infrastructure enabled large-scale wildfire suppression activities, which were viewed as beneficial to both the economy and the natural environment. Land managers have since learned about the benefits that regular fire can have on the natural environment and that fire suppression without prevention (e.g., fuel reduction) is a recipe for larger, more uncontrollable wildfires that can have a negative impact on human society and infrastructure.

7.1.1. FORESTRY MANAGEMENT (BMPS)

- Effective forestry management Best Management Practices (BMPs) are essential for reducing the risk of wildfires and promoting the health and resilience of forests within the Jekyll Island community. By implementing a comprehensive set of BMPs, we can mitigate the potential impacts of wildfires, protect valuable natural resources, and enhance the overall safety of residents and visitors.

7.1.2. VEGETATION MANAGEMENT

- Fuel Breaks and Defensible Space: Establish and maintain fuel breaks along roadways, property boundaries, and within forested areas to create defensible space that can slow or stop the spread of wildfires. These areas should be properly cleared of dead vegetation, excess brush, and flammable materials.
- Thinning and Pruning: Conduct regular thinning and pruning of trees to reduce fuel loads and minimize the potential for ladder fuels (lower branches that can carry fire to the canopy).
- Invasive Species Control: Implement invasive species management programs to prevent non-native vegetation from becoming a significant fuel source for wildfires.

7.1.3. FIREBREAK CONSTRUCTION AND MAINTENANCE

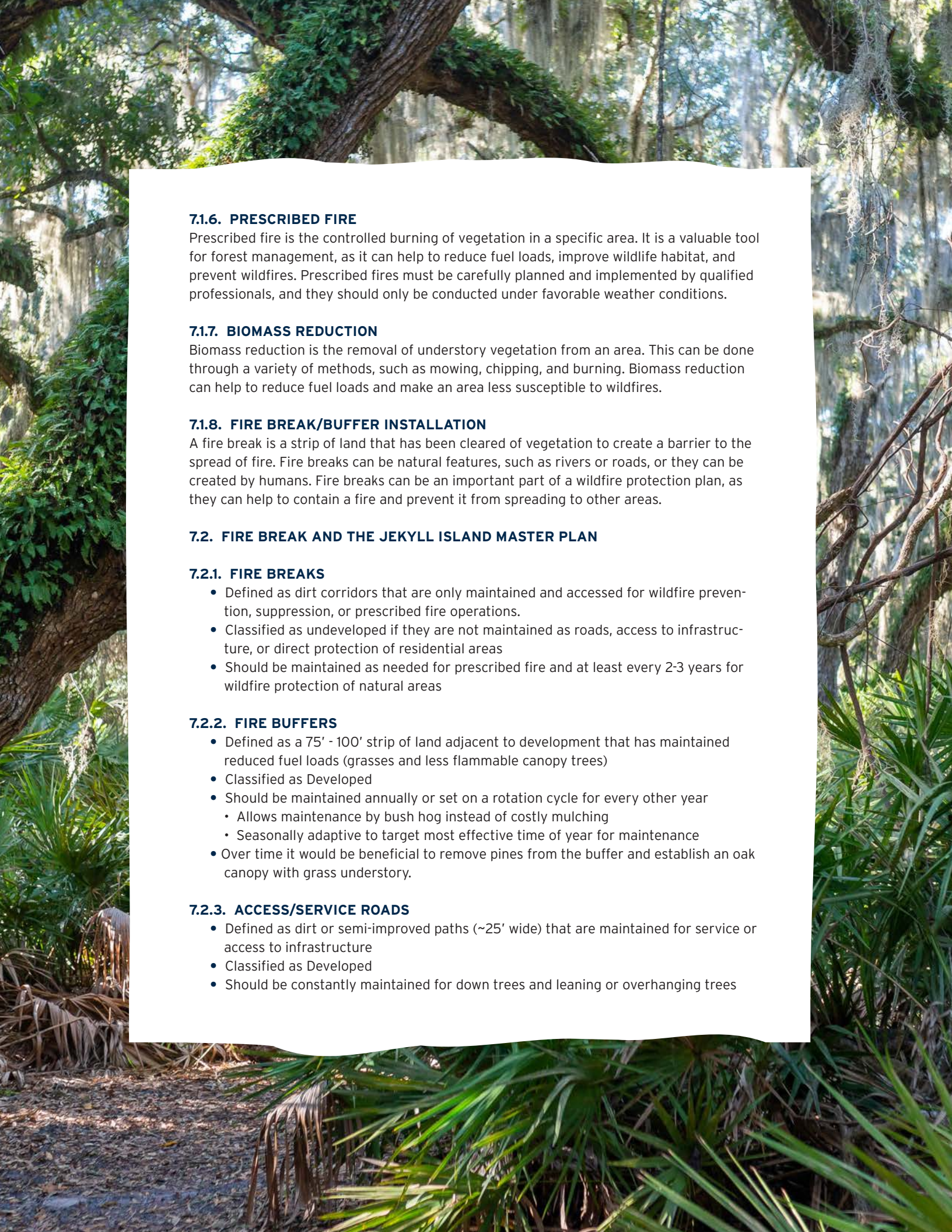
- Strategic Firebreak Placement: Designate and maintain firebreaks that can serve as barriers to slow or contain the spread of wildfires. These firebreaks should be strategically placed based on terrain, wind patterns, and the potential pathways of fire.
- Firebreak Width and Maintenance: Ensure that firebreaks are wide enough to effectively impede the spread of flames. Regularly maintain firebreaks by removing vegetation, debris, and other combustible materials.

7.1.4. PRESCRIBED BURNING

- Prescribed Fire Plans: Develop and implement prescribed burning plans in collaboration with Partners. These controlled burns can reduce fuel accumulation and mimic natural fire cycles, enhancing ecosystem health and reducing the risk of uncontrolled wildfires.
- Smoke Management: Consider air quality and smoke dispersion patterns when planning prescribed burns to minimize impacts on public health and visibility.

7.1.5. MONITORING AND ADAPTIVE MANAGEMENT

- Monitoring Programs: Establish regular monitoring programs to assess the effectiveness of implemented BMPs. Use data and feedback to adjust strategies and improve wildfire preparedness over time.
- Collaborative Learning: Collaborate with neighboring communities, relevant agencies, and experts to share knowledge and experiences, enhancing the collective ability to address wildfire challenges.



7.1.6. PRESCRIBED FIRE

Prescribed fire is the controlled burning of vegetation in a specific area. It is a valuable tool for forest management, as it can help to reduce fuel loads, improve wildlife habitat, and prevent wildfires. Prescribed fires must be carefully planned and implemented by qualified professionals, and they should only be conducted under favorable weather conditions.

7.1.7. BIOMASS REDUCTION

Biomass reduction is the removal of understory vegetation from an area. This can be done through a variety of methods, such as mowing, chipping, and burning. Biomass reduction can help to reduce fuel loads and make an area less susceptible to wildfires.

7.1.8. FIRE BREAK/BUFFER INSTALLATION

A fire break is a strip of land that has been cleared of vegetation to create a barrier to the spread of fire. Fire breaks can be natural features, such as rivers or roads, or they can be created by humans. Fire breaks can be an important part of a wildfire protection plan, as they can help to contain a fire and prevent it from spreading to other areas.

7.2. FIRE BREAK AND THE JEKYLL ISLAND MASTER PLAN

7.2.1. FIRE BREAKS

- Defined as dirt corridors that are only maintained and accessed for wildfire prevention, suppression, or prescribed fire operations.
- Classified as undeveloped if they are not maintained as roads, access to infrastructure, or direct protection of residential areas
- Should be maintained as needed for prescribed fire and at least every 2-3 years for wildfire protection of natural areas

7.2.2. FIRE BUFFERS

- Defined as a 75' - 100' strip of land adjacent to development that has maintained reduced fuel loads (grasses and less flammable canopy trees)
- Classified as Developed
- Should be maintained annually or set on a rotation cycle for every other year
  - Allows maintenance by bush hog instead of costly mulching
  - Seasonally adaptive to target most effective time of year for maintenance
- Over time it would be beneficial to remove pines from the buffer and establish an oak canopy with grass understory.

7.2.3. ACCESS/SERVICE ROADS

- Defined as dirt or semi-improved paths (~25' wide) that are maintained for service or access to infrastructure
- Classified as Developed
- Should be constantly maintained for down trees and leaning or overhanging trees

7.3. FUEL ASSESSMENT

7.3.1. FUEL ASSESSMENT

One of the fundamental steps in developing an effective community wildfire protection plan for Jekyll Island, GA, is to assess the fuels that contribute to wildfire risk. Fuels, including vegetation, dead organic matter, and other combustible materials, play a critical role in determining the intensity and spread of wildfires. Understanding the type, amount, and distribution of fuels is essential for creating targeted mitigation strategies that minimize the impact of wildfires on the island's communities, environment, and resources.

7.3.2. METHODS OF ASSESSING FUELS

Assessing fuels involves gathering data about the composition, density, moisture content, and arrangement of combustible materials within the landscape. This information provides valuable insights into the potential behavior of wildfires and helps in devising appropriate preventive measures. Here are some potential methods for assessing fuels on Jekyll Island:

1. The information gathered from fuel assessments will form the foundation of a targeted and effective community wildfire protection plan. By understanding the characteristics of fuels on Jekyll Island, we can:

- Identify high-risk areas prone to rapid fire spread.
- Prioritize fuel reduction efforts and prescribe appropriate treatments.
- Designate strategic locations for firebreaks and defensible spaces.
- Determine the optimal timing and frequency of prescribed burns.

2. Ultimately, a thorough assessment of fuels empowers us to make informed decisions that safeguard lives, property, and the island's unique ecosystems. By integrating fuel assessment into the Community Wildfire Protection Plan, we strengthen our ability to mitigate wildfire risks and foster a safer environment for all residents and visitors of Jekyll Island, GA.

- **Field Surveys and Sampling:**
  - Conduct on-site surveys to collect data about the types of vegetation, their condition, and density. Sample various fuel components, such as leaves, twigs, and dead materials, to analyze moisture content and flammability.
- **Remote Sensing and GIS:**
  - Utilize remote sensing techniques, such as satellite imagery and aerial photography, to map vegetation types and their spatial distribution. Geographic Information Systems (GIS) can help analyze the data and identify areas with higher fuel loads.
  - There are new peer-reviewed research programs that are utilizing drones equipped with multispectral imaging cameras as well as LiDAR to develop fuel load and typing models. Keeping up with new techniques to better understand the environment is key to mitigating disasters.
- **Fuel Model Classification:**
  - Implement fuel model classification systems that categorize vegetation types based on their flammability and behavior in a fire. These models assist in predicting fire behavior and developing appropriate response strategies.
- **Moisture Content Monitoring:**
  - Install and maintain moisture content sensors in various vegetation types to track changes in fuel moisture levels. Moisture content greatly influences how quickly fuels can ignite and sustain a fire.
- **Historical Data Analysis:**
  - Examine historical fire data and records of past fire incidents on the island. This information can provide insights into the behavior of past wildfires and the factors that contributed to their spread.
- **Fuel Load Measurements:**
  - Quantify the amount of fuel present in different areas by measuring biomass density. This data can guide decisions about fuel reduction efforts and prescribed burns.
- **Collaboration with Experts:**
  - Engage with forestry professionals, ecologists, and fire behavior analysts to conduct comprehensive fuel assessments. Their expertise can ensure accurate data collection and interpretation.

7.4. CHALLENGES

While prescribed fire is now understood to be one of the most useful tools for preventing risks associated with wildfires, human population sprawl, social acceptance, and policy constraints have limited its use. Negative public perceptions of prescribed fire programs include concerns about smoke hazards, air pollution, aesthetics, and impacts on wildlife. Although prescribed fire is a relatively minor source of fine particulate matter (pm2.5), state air quality regulations, aligned with federal standards, have been established to control prescribed fire emissions and are managed through a permitting system to ensure optimal atmospheric dispersion. Restoration of large-scale natural fire regimes is hindered by increasing human populations and urban/suburban sprawl, prevention of damage caused by unnaturally intense wildfires, as well as conservation of many plant and animal species, rely on prescribed fire programs. Therefore, despite the obstacles, there is a pressing need to continue and increase the prescribed fire and forestry management program on Jekyll Island using established best management practices to mitigate wildfire risk and support natural biodiversity.

WILDFIRE RESPONSE - SUPPRESSION

8. WILDFIRE RESPONSE - SUPPRESSION

8.1. AGENCY RESPONSIBILITIES

1. Currently, JIA does not have any early detection wildfire system, nor any forestry fire watch towers. We are reliant on JIA employees or visitors calling 911 unless JIFD staff see something on routine patrols. Calls are dispatched through 911 and routed to the Jekyll Island Fire Department, Georgia State Patrol, and Conservation Department Staff.

2. JIFD are likely to be first responders due to their constant readiness to respond to calls. They perform the initial sizing up of the fire, determine rate of spread, and make the decision to attempt containment, or call GFC immediately. If any wildfire threatens structures or critical facilities, it will be the JIFD's responsibility to protect those structures and determine evacuation procedures. GSP will aid JIFD in evacuation procedures should an incident require it. The Conservation Department will take an advisory role and step in for firing operations, should the incident be appropriate for such action.

3. As with any "wildfire" in Georgia, the GFC takes the lead of Incident Command once they arrive on scene. This can take multiple hours, due to travel time, traffic, or response obligations in other parts of the state. Therefore, Jekyll Island and its residents must be prepared to handle any situation that could arise.

4. Evacuation Orders could be issued for any homes or businesses that are deemed at risk during a wildfire incident. GSP will aid the JIA in handling evacuation procedures. JIA will send Nixle Alerts as necessary and information becomes available.

5. GFC Incident Command – The golf course parking lot is centralized on the island, buffered by large, mowed lawns with irrigation systems, and is devoid of overhead hazards. It will act as the staging point for GFC fire suppression operations, should an incident require an emergency response.

- Unloading areas for Heavy Equipment include the landfill, Summer Waves, and Golf Course. Each of these areas are buffered by defensible open spaces without hazardous fuels, have no overhead canopy, and provide sufficient space to safeguard equipment and its ability to maneuver.

6. Decision-making Tool

- Jekyll Island has 29 different vegetative communities, each with vastly distinct fire behavior potentials. The goal would be to develop a model that uses the vegetation community data, fuel density, mapping information, fire break and buffer location, proximity to structures, and most importantly fire weather and climate information. This model will help decision-makers within JIA and GFC to determine the appropriate steps to contain, suppress, or to let a wildfire burn similar to a prescribed burn with resources on-site. With the current information, and until a model can be developed, these decisions will be made on a case-by-case basis using each agency's approved protocols.

COMMUNITY PREPAREDNESS

9. COMMUNITY PREPAREDNESS

9.1. FIREWISE

Firewise USA is a program managed by the National Fire Protection Association (NFPA) that teaches home and business owners how to adapt to living with wildfire risk and encourages neighbors to work together and take action to prevent losses.

1. To fulfill the Firewise Mission for Jekyll Island, a collaborative partnership has been established among the community, the Jekyll Island Fire Department, and the Jekyll Island Authority Conservation Department. Their collective aim is to enhance the safety of Jekyll Island as a destination for both residents and visitors. Jekyll Island has actively participated in the Firewise program since 2009, becoming the first Georgia barrier island to do so, steadily increasing community engagement over the years. However, in May 2017, a small brush fire incident served as a stark reminder of the potential dangers of wildfires and the rapidity with which situations can escalate. This fire occurred at the island's sole entrance and exit point, posing significant challenges in terms of fire weather conditions and fuel load, overwhelming available resources. Recognizing the critical need to address future fire risks, the Jekyll Island Authority (JIA) Conservation Department formulated a Comprehensive Fire Management Plan in 2019. This plan outlined immediate concerns and proactive measures to mitigate future fires, aligning well with the existing community driven Firewise initiative. To demonstrate their commitment to enhancing fire safety and foster greater community participation in the Firewise program, the JIA prioritized action within the island's public areas. Since 2019, the JIA staff has undertaken various initiatives to bolster fire breaks, remove potential fuel sources, and conduct controlled burns. In addition, the acquisition of fire suppression equipment and the training of multiple JIA staff members in Wildland firefighting techniques have significantly bolstered their response capabilities. To educate and engage citizens about the Firewise program, a range of campaigns and events have been organized, leveraging social media platforms, in-person gatherings, and the distribution of informative materials during new resident orientations. Furthermore, the JIA staff maintains a strong partnership with the local Georgia Forestry Unit and will continue working collaboratively to mitigate wildfire hazards on the island. This ongoing collaboration ensures a comprehensive approach to wildfire prevention and response, leveraging the expertise and resources of both entities. By combining efforts, Jekyll Island strives to create a safer environment while promoting the importance of fire safety to its community.

9.2. ORDINANCE REVISION

As part of a comprehensive ordinance overhaul in 2022, the Jekyll Island Authority (JIA) implemented substantial enhancements to the Code of Ordinances, specifically targeting Fire Prevention, Protection, and Safety requirements within both the building code and land use and development regulations. In line with this effort, the JIA officially adopted the 2018 edition of the International Fire Code with Georgia State Amendments. These updates to the Code of Ordinances serve to integrate Firewise community standards, placing a heightened emphasis on fire safety throughout the island. Notably, the revised regulations include more stringent commercial sprinkler requirements, ensuring that appropriate measures are in place to minimize fire risks in commercial establishments. Furthermore, Jekyll Island had previously enacted ordinances that prevent open burning and restrict the use of fireworks, thereby mitigating potential fire hazards. In addition, established procedures are now in place to enable the imposition of bans on all forms of burning, including fire pits and propane emitters, when necessary to ensure public safety. By implementing these comprehensive changes to the Code of Ordinances, the Jekyll Island Authority demonstrates its steadfast commitment to enhancing fire prevention, protection, and safety measures across the island. These measures not only align with Firewise community standards but also reflect a proactive approach to minimizing fire-related risks and safeguarding the well-being of residents and visitors alike.

9.3. STAFF PREPAREDNESS

In order for JIA staff to serve the community, various measures of preparation must take place. Annual training for Type II Firefighters is necessary to ensure the highest and most current standards of safety are up to date, which applies to JIA Conservation and JIFD. Additionally, JIA Conservation Department members are expected to remain up to date on current literature and fire science research findings, with particular focus on fuel reduction, duff management, and forestry BMPs. Collaborative learning with experienced partners such as GFC is essential. Finally, JIA will increase eligible staff certifications for fire management, fire ecology, and fuels sciences.

ACTION PLAN

10. ACTION PLAN

Critical Infrastructure (Section 5) Mapping Needs
Powerlines
Water Towers
Wastewater Lift Stations
Sewer Lines
Septic Tanks
Water Lines
Historic Resources
Communication Lines (Internet, cable, etc.)
Diesel or Gas Generators
Residential Propane Tanks

Suppression Action Items (Section 8)
Update and define wildfire incident responding agency roles
Develop and update evacuation plans
Ensure unloading areas for GFC remain open and defensible
Create a map with appropriate layers to share with supporting agencies
Develop decision-making tool for wildfire incidents
Monitor air quality for smoke management purposes

Equipment Needs (Section 11)	
1	Drone with Payload Capacity (LiDAR, Thermal, Multi/Hyper Spectral Imaging)
2	Utility Tractor with Multiple Implements to Install and Maintain Fire Breaks (Flail Mower/Mulcher, Blower, Rotary Cutter, Hay Rake, Leveling Blade, Cultipacker, etc.)
3	Type 5–7 Engine
4	D3–D6 equivalent size Dozer with Forestry Plow
5	Heavy Duty Mulcher or Masticator (Skid Steer, Dozer, Dedicated Forestry Machine)
6	Excavator with Mulching Head
7	Portable Weather Station
8	Early Smoke Detection Camera System
9	Prescribed Fire PPE (Nomex, Helmets, Fire Shelters, Packs, Tools, FLIR Camera Systems)
10	Hauler with Removable Gooseneck Trailer
11	Air Curtain Burner

Community Needs (Section 9)	
1	Technology monitoring for ignition, allowing for early detection and rapid response to prevent a spreading wildfire
2	Continuously develop and dispense education materials for Firewise community
3	Encourage homeowners to schedule risk assessment of leased property by JIA Cons or JIFD
4	Ordinances reflect and adopt updates to fire codes passed down from state government
5	Firewise assessments scores assigned to development structures and critical infrastructure
6	Use risk metrics when evaluating new development plans
7	Refer to Firewise and community preparedness action items for established development.

Staff Needs (Section 9)	
1	Annual training
2	Remain up to date on current literature and fire science research findings: Focus on fuel reduction and duff management, BMPs
3	Increase eligible staff certifications for fire management
4	Collaborative learning

Management Needs (Section 7)	Applicable Management Units (Section 6)	Equipment Needs (Section 11)
Biomass reduction	6.2, 6.3, 6.4, 6.7, 6.8	2, 5, 6, 7, 9, 11
Prescribed fire where appropriate	6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7	1, 3, 5, 6, 7, 9, 10
Restoration of rare or imperiled communities	6.1, 6.2, 6.3, 6.6	2
Fire suppression in habitats that require it	6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.8	2, 3, 5, 6, 7, 8, 9, 10
Add more firebreaks, add buffers where necessary, mulch rows	6.2, 6.3, 6.4, 6.8,	2, 4, 5, 6
Fuel and combustion probability assessment for various dominant vegetation species, to classify fuel type, fuel load, and duff depth	6.2, 6.3, 6.4	1
Evaluate the use of most appropriate technology to increase accuracy and efficient assessment of fuels	6.2, 6.3, 6.4, 6.7, 6.8	1
Safely reduce duff	6.3, 6.4, 6.7	2, 4, 5, 6, 9, 11
Monitor the relationship between flood, storms, salt spray with fuels or stand altering habitat modifications that impact fire behavior	6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7	
Remove pines in fire buffers, consider replacing live oaks	6.8	
Map and identify ephemeral wetland characteristics to understand their value as fire break or fuel	6.6	1
Maintain buffers around JIA structures and critical infrastructure	6.8	2, 5, 6
Establish and maintain fuel breaks	6.2, 6.3, 6.4	2, 3, 5, 6, 11
Invasive species control	6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8	2, 5, 6, 11
Ladder fuel reduction	6.2, 6.3, 6.4, 6.6, 6.7	2, 6
Develop and implement prescribed fire burn plans for specific blocks in advance and make necessary preparations	6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7	9
Consider a fire history study, that may explain past fire frequency	6.2, 6.3, 6.4	

STAKEHOLDER INPUT AND REVIEW

11. STAKEHOLDER INPUT AND REVIEW

11.1. PRESCRIBED FIRE PROGRAM EAP

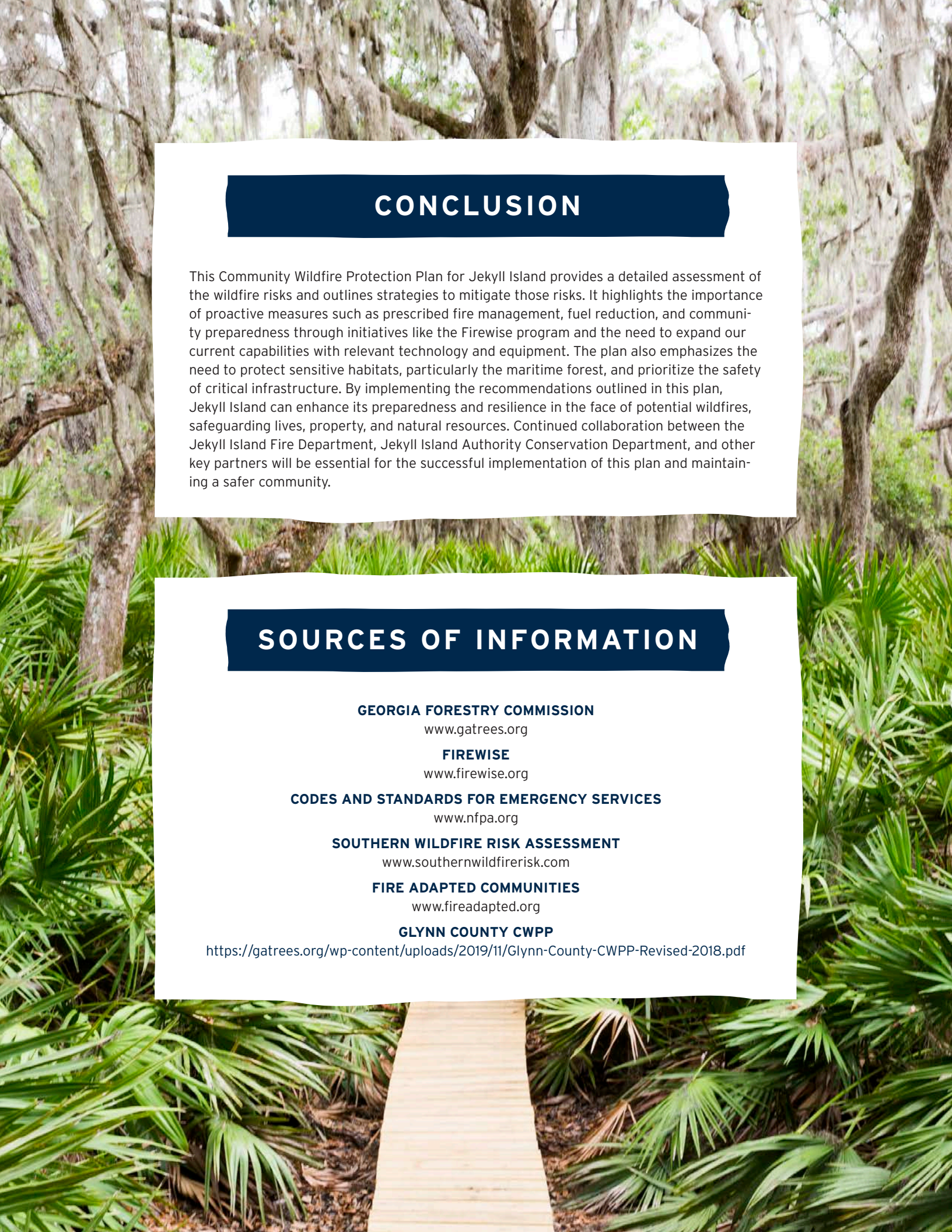
In February of 2020, key JIA departments along with Jekyll Island Residents, Georgia Department of Natural Resources and Georgia Forestry Commission representatives came together to discuss the creation of a formal comprehensive fire management program. The Committee broadly supported the JIA undertaking this endeavor to maximize public safety, manage risk to personal property and natural resources, and seek collateral ecological benefits. The report established a partnership amongst the present organizations and a living and adaptable map to be redrawn with new fuel, habitat, or wildlife use data. Lastly, it laid the groundwork for restoration potential in the case of stand-altering fire from a prescribed or wildfire.

11.2. PRESCRIBED FIRE MANAGEMENT PROGRAM - JIA BOD

After the EAP committee was supportive of the concept, JIA staff developed a basic Comprehensive Fire Management Plan that served as the basis for the creation of the Community Wildfire Protection Plan. The plan laid out logistical assets, burn prescription guidelines, and a preliminary timeline for introducing fire to areas that have been suppressed for decades. This document was presented to the JIA Board of Directors at an open forum to allow stakeholders the opportunity to review and comment on the document before approval.

11.3. FIREWISE

Jekyll Island has participated in the Firewise Program since 2009 establishing benchmark goals over three-year periods. The goal of participation in this program is to carry out the Firewise Mission for Jekyll Island. The community, Jekyll Island Fire Department, and the Jekyll Island Authority Conservation Department have joined in a collaborative partnership to educate homeowners, new and old, to mitigate wildfire hazards on the island.



CONCLUSION

This Community Wildfire Protection Plan for Jekyll Island provides a detailed assessment of the wildfire risks and outlines strategies to mitigate those risks. It highlights the importance of proactive measures such as prescribed fire management, fuel reduction, and community preparedness through initiatives like the Firewise program and the need to expand our current capabilities with relevant technology and equipment. The plan also emphasizes the need to protect sensitive habitats, particularly the maritime forest, and prioritize the safety of critical infrastructure. By implementing the recommendations outlined in this plan, Jekyll Island can enhance its preparedness and resilience in the face of potential wildfires, safeguarding lives, property, and natural resources. Continued collaboration between the Jekyll Island Fire Department, Jekyll Island Authority Conservation Department, and other key partners will be essential for the successful implementation of this plan and maintaining a safer community.

SOURCES OF INFORMATION

GEORGIA FORESTRY COMMISSION
www.gatrees.org

FIREWISE
www.firewise.org

CODES AND STANDARDS FOR EMERGENCY SERVICES
www.nfpa.org

SOUTHERN WILDFIRE RISK ASSESSMENT
www.southernwildfirerisk.com

FIRE ADAPTED COMMUNITIES
www.fireadapted.org

GLYNN COUNTY CWPP
https://gatrees.org/wp-content/uploads/2019/11/Glynn-County-CWPP-Revised-2018.pdf

NOTES

JEKYLL ISLAND
AUTHORITY