ADD-ONS

COUNTY COUNCIL OF BEAUFORT COUNTY

ADMINISTRATION BUILDING
BEAUFORT COUNTY GOVERNMENT ROBERT SMALLS COMPLEX
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COUNTY ATTORNEY

ASHLEY M. BENNETT
CLERK TO COUNCIL

AGENDA
NATURAL RESOURCES COMMITTEE
Monday, March 19, 2018
3:00 p.m. Time Change
Executive Conference Room, Administration Building
Beaufort County Government Robert Smalls Complex
100 Ribaut Road, Beaufort

Committee Members:
Brian Flewelling, Chairman
Roberts "Tabor" Vaux, Vice Chairman
Rick Caporale
Gerald Dawson
Steve Fobes
York Glover
Alice Howard

Staff Support:
Anthony Criscitiello, Planning Director
Gary James, Assessor
Eric Larson, Division Director
Environmental Engineering
Dan Morgan, Mapping & Applications Director

1. CALL TO ORDER – **3:00 P.M.** Time Change

2. UPDATE / PREVIOUS PLANNING COMMISSION MEETING

3. UPDATE / PREVIOUS SOUTHERN LOWCOUNTRY REGIONAL PLANNING COMMISSION (SOLOCO) MEETING

4. DISCUSSION OF A POTENTIAL RESOLUTION IN SUPPORT OF PRESCRIBED BURN (DARRYL JONES, FORESTRY PROTECTION CHIEF, SC FORESTRY COMMISSION) (backup)

5. DISCUSSION / MITCHELLVILLE ADDITIONAL COMMITMENT (AHMAD WARD, EXECUTIVE DIRECTOR, MITCHELVILLE PRESERVATION PROJECT, AND MAYOR DAVID BENNETT, TOWN OF HILTON HEAD ISLAND)

6. UPDATE / WATERFRONT PARK EXTENSION INTO WHITEHALL DEVELOPMENT (BILL PROKOP, CITY OF BEAUFORT MANAGER, AND MAYOR BILLY KEYSERLING, CITY OF BEAUFORT)

7. POTENTIAL CHANGES TO COMMUNITY DEVELOPMENT CODE (CDC) AND COMPREHENSIVE PLAN
   A. Buckingham Community
   B. U.S. Highway 170 / Bluffton Parkway
   C. Hilton Head National

8. TEXT AMENDMENT TO THE BEAUFORT COUNTY COMMUNITY DEVELOPMENT CODE (CDC), ARTICLE 3, SECTION 3.3.50 REGIONAL CENTER MIXED USE (C5) ZONE STANDARDS (TO ALLOW HOTEL TO APARTMENT CONVERSION ON UNIT TO UNIT BASIS); APPLICANT: MICHAEL KRONIMUS (backup)

The County Channel

9. SOUTHERN BEAUFORT COUNTY MAP AMENDMENT / OSPREY POINT (MALIND BLUFF) PUD MASTER PLAN AMENDMENT REQUEST FOR R600 013 000 0006 0000 (119.90 ACRES EAST OF HIGHWAY 170, OKATIE); OWNER / APPLICANT: LCP III, LLC / MR. J. NATHAN DUGGINS, AGENT: JOSH TILLER (backup)

10. SOUTHERN BEAUFORT COUNTY MAP AMENDMENT / RIVER OAKS (MALIND POINTE) PUD MASTER PLAN AMENDMENT REQUEST FOR R600 013 000 008C 0000 (+/- 63.54ACRES EAST OF HIGHWAY 170, OKATIE); OWNER / APPLICANT: BBI HOLDING / MR. ROGER L. SAUNDERS; AGENT: JOSH TILLER (backup)

11. CONSIDERATION OF REAPPOINTMENTS AND APPOINTMENTS
    A. Rural and Critical Lands Preservation Review Board
        1. One Vacancy (Council District 5)
    B. Southern Beaufort County Corridor Beautification Board
        1. Three Vacancies (Council District 5, Council District 6 and Council District 11)

12. EXECUTIVE SESSION
    A. Discussion of negotiations incident to proposed contractual arrangements and proposed purchase of property
        1. Project 2018-BW
        2. Project 2018-HN

13. ADJOURNMENT

RESOLUTION 2018/__

A RESOLUTION TO SUPPORT PRESCRIBED FIRE

WHEREAS, Beaufort County Council recognizes that prescribed fire provides multiple ecological, economic and cultural benefits to the citizens of Beaufort County;

WHEREAS, prescribed fire is a traditional land management practice and public safety tool that helps prevent and lessen the severity of wildfires, reducing the loss of private property and saving lives while acting as a preventive measure saving taxpayers the cost and hazards to local government's public safety and firefighting officials who respond to wildfires;

WHEREAS, prescribed fire is a valuable tool used by forest landowners and managers in reducing hazardous fuels, reducing the risk of destructive wildfires, preparing sites for both natural and artificial forest regeneration, improving access to and the appearance of land, and controlling detrimental insects and forest diseases;

WHEREAS, prescribed fire is used to restore and maintain fire-dependent ecosystems, and to manage wildlife habitat for many species;

WHEREAS, many rural economies depend on prescribed fire to manage habitat for game species such as white-tailed deer, wild turkey and bobwhite quail whose hunting economy is vital to South Carolina;

WHEREAS, prescribed fire is used to manage for songbirds and other non-game wildlife species, and for fire-dependent plants, and is a vital tool to maintain aesthetically-pleasing landscapes, all of which bring in substantial tourism dollars to South Carolina;

WHEREAS, the South Carolina Forestry Commission is authorized by various South Carolina state laws to control wildfires, administer burning laws, and provide other forestry assistance, and the commission promotes prescribed burning as a valuable forest management tool;

WHEREAS, the South Carolina General Assembly passed the Prescribed Fire Act in 1994 (amended in 2012), defining prescribed fire thus, "Prescribed fire means a controlled fire applied to forest, brush, or grassland, vegetative fuels under specified environmental conditions and precautions which cause the fire to be confined to a predetermined area and allow accomplishment of the planned land management objectives.";

WHEREAS, prescribed fire helps keep South Carolina's forests healthy -- and those forests, in turn -- provide ecological services such as clean air and clean water and contribute to the quality of life of the state's citizens and to local economies;

WHEREAS, prescribed fire practitioners provide public health benefits by burning under carefully-planned weather conditions, reducing the unplanned smoke from wildfires, thus contributing to the air quality of South Carolina by promoting healthy forests that serve as "air shed contributors;"

WHEREAS, prescribed fire is a traditional land management tool in the South that has been practiced for thousands of years and is an integral part of South Carolina's cultural and natural heritage;

DRAFT

NOW, THEREFORE, BE IT RESOLVED, THAT THE COUNTY COUNCIL OF BEAUFORT COUNTY, SOUTH CAROLINA supports the appropriate and continued use of prescribed fire in South Carolina,

AND, BE IT FURTHER RESOLVED THAT the Beaufort County Council supports the South Carolina Forestry Commission, South Carolina Department of Natural Resources, Clemson University, The Nature Conservancy, the South Carolina Prescribed Fire Council and others as they strive to provide educational and technical assistance to landowners in an effort to recognize the benefits listed above,

AND, BE IT FURTHER RESOLVED THAT the Beaufort County Council urges Air Quality Regulators to work closely with all state agencies and landowners in a fair and balanced approach to smoke management.

Adopted this ___ day of March, 2018.

COUNTY COUNCIL OF BEAUFORT COUNTY

BY:_____
D. Paul Sommerville, Chairman

APPROVED AS TO FORM:

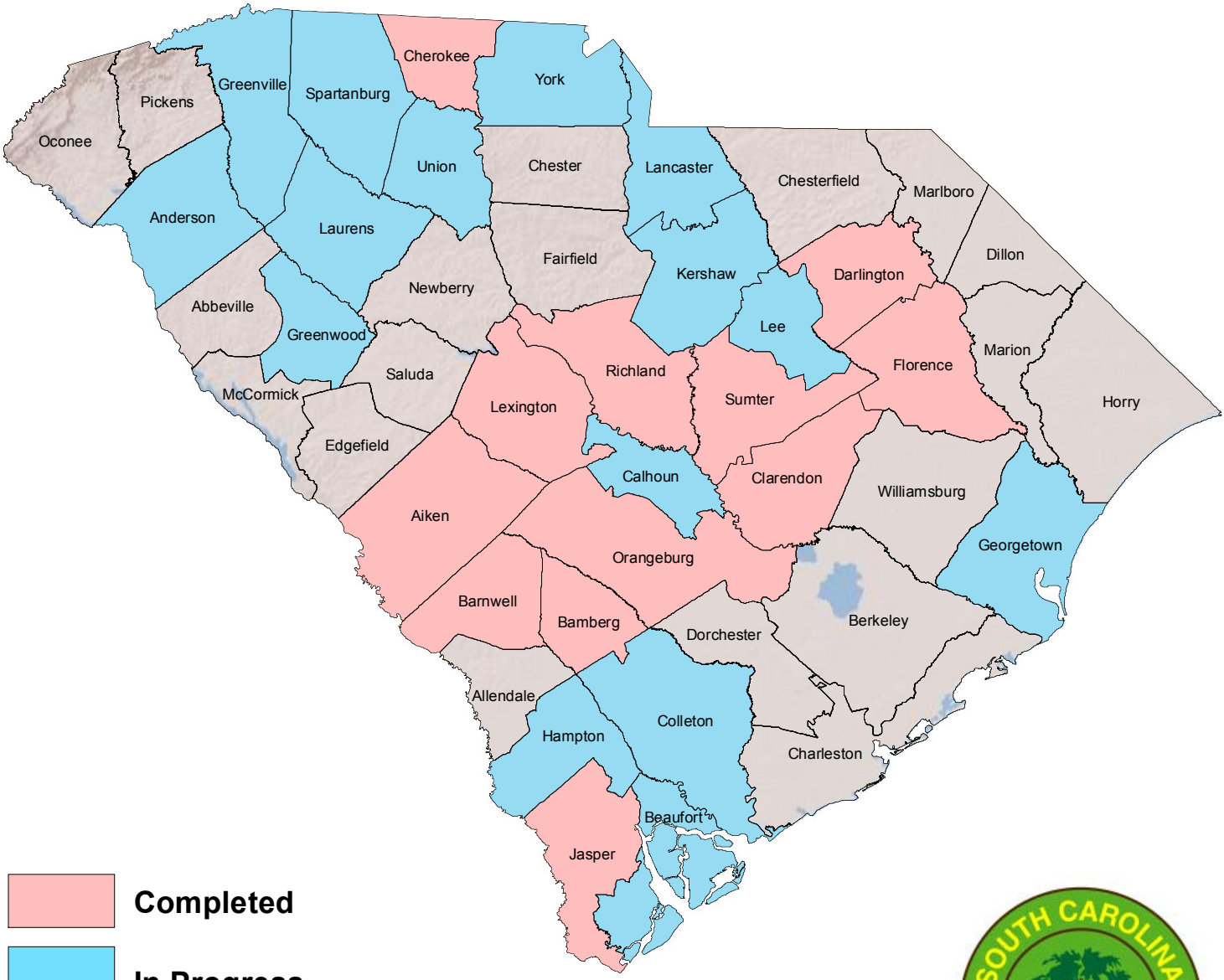
_____
Thomas J. Keaveny, II, Esquire
Beaufort County Attorney

ATTEST:

_____
Ashley M. Bennett, Clerk to Council

DRAFT

SC Counties with Passed Resolution in Support of Prescribed Fire (As of January 9, 2018)



Completed

In Progress

2018
South Carolina Forestry Commission
5500 Broad River Road
Columbia, SC 29212

DISCLAIMER: This is a product of the South Carolina Forestry Commission. Reasonable efforts have been made to ensure the accuracy of this map. The SCFC expressly disclaims responsibility for damages or liability that may arise from the use of this map. Not to survey standards.

MEMORANDUM

To: Beaufort County Natural Resources Committee

From: Anthony J. Criscitiello, Community Development Director

Subject: Text Amendment to the Beaufort County Community Development Code (CDC): Article 3, Section 3.3.50 Regional Center Mixed-Use to permit unit-per-unit conversion of Lodging to Multi-Family

Date: February 09, 2018

PLANNING COMMISSION RECOMMENDATION from the excerpt of its February 5, 2017, draft minutes:

Mr. Robert Merchant briefed the Commissioners on the text amendment. The new owners of the Bluffton Suburban Lodge, located east of Lowe's along Highway 278, behind MacDonald's, are interested in turning the extended-stay hotel, unit for unit, into efficiency apartments. The building was built in 2000. The project is located in the C5 regional center mixed-use district where hotels and multi-family uses are permitted; however 150 units on 3.13 acres is problematic since the multi-family use density is 15 units per acre. Staff recommended a text amendment; however, Staff made several provisions including the hotel having existed for five years rather than using the amendment to bypass the density issue, building code issues being separate from the CDC, and parking issues with hotels requiring 1 space per room versus 1.25 spaces per apartment. The existing site has parking issues. Traffic impacts for apartments are considered nominally greater than a hotel. Staff recommends approval since smaller units could possibly provide a niche in the lower-end housing supply. He noted that the county is going through a housing needs assessment and the results may expand or move this amendment to another zoning district.

Commission discussion included whether the owner did a market research on the demand of studio apartments.

Applicant's Comment: Mr. Michael Kronimus, the applicant, noted there was a huge demand for that type of housing in that location. Service staff levels are not being met on Hilton Head Island; work force housing is needed. These units are 500 to 700 square feet. We can combine the rooms to form 1-bedrooms, since most are studio apartments. A parking issue exists. Workforce housing is the aim; however, some tenants won't have vehicles, so parking may not be the problem since there is access to a major thoroughfare for tenants to take a bus or Uber.

Additional Commission discussion included querying whether the intent is to market as workforce housing, concern with the lack of firewalls for apartments, fearful of unintended consequences since the text amendment could be used in other zones where hotels transfer ownership but property deterioration is not addressed, querying whether regional significance was addressed regarding notifying municipalities of the proposed text amendment *(Mr. Merchant said this amendment did not trigger the regional significance aspect so he had not notified the municipalities.)*, noting the logical evolution from hotel to multi-family, noting the cramped and confined space of the specific inn that led to this proposed text amendment, concern that a density capacity has not been set, noting the lack of amenities for children on the site, concern that there are no schools within walking distance of the property and school buses access would be problematic, concern that the amendment would allow more hotel to apartment conversions throughout the County, desiring input from the School District and the municipalities, querying the average occupancy rate of area hotels, affirming that the municipalities have a desperate need for affordable housing, querying when the workforce housing assessment would be completed *(Mr. Merchant*

noted that the target draft was set for March 2018.), querying how soon the Commission could receive input from the municipalities on the proposed text amendment, and noting that the Town of Bluffton had an Affordable Housing Committee.

Mr. Kronimus noted, in regards to firewalls, that that building codes requirement would be addressed in another process. In regards to other zones using the text amendment, only a small amount of zones would allow the hotel to multi-family conversion. Mr. Kronimus stated that parking at the proposed site would not be met with the existing regulations.

Mr. Merchant reiterated that the parking requirements can be increased or decreased by 20%, but the applicant must submit a parking study that will be reviewed by the County Traffic Engineer. He noted that the site has no access to the Bluffton Parkway or to the trail. He stated that the Staff doesn't want to create a parking problem because there is nowhere to park offsite.

Mr. Kronimus noted that the bottom line is if the text amendment is approved, it doesn't mean that project will be approved. This is truly a workforce housing opportunity. This is a C5 zone that is the most dense zoning allowed in Beaufort County. He stated that the owner could raze building and build another unit with higher density on the 3.2 acre property. This location could be downzoned to a T-zone to allow a higher density. There are various items that must be met by Building Codes so there's a long way to go. The property is next door at a T4 zone with an unlimited density, but the parking calculation must be met.

Public Comment: None was received.

Motion: Mr. Ed Pappas made a motion, and Ms. Diane Chmelik seconded the motion, **to recommend to County Council a denial of the Text Amendment to the Beaufort County Community Development Code (CDC), Article 3, Section 3.3.50 Regional Center Mixed Use (C5) Zone Standards (to allow hotel to apartment conversion on unit to unit basis) because the Housing Needs Assessment had not been completed.** Discussion included a clarification of the motion. The motion **failed (FOR: Chmelik and Pappas; AGAINST: Hennelly, Hincher, and Semmler; ABSENT: Fermin, Stewart, and Vacancy/St. Helena Island Representative).**

Motion: Mr. Jason Hincher made a motion, and Mr. Kevin Hennelly seconded the motion, to **recommend to County Council approval of the Text Amendment to the Beaufort County Community Development Code (CDC), Article 3, Section 3.3.50 Regional Center Mixed Use (C5) Zone Standards (to allow hotel to apartment conversion on unit to unit basis) with the condition that input should be received from the municipalities that are affected and their respective affordable housing committees.** The motion **passed (FOR: Hennelly, Hincher, and Semmler; AGAINST: Chmelik and Pappas; ABSENT: Fermin, Stewart, and Vacancy/St. Helena Island Representative).**

STAFF REPORT:

A. BACKGROUND:

Case No.	ZTA 2018-01
Applicant:	Michael Kronimus, KRA Architects
Proposed Text Change:	Text Amendment to the Beaufort County Community Development Code (CDC): Article 3, Section 3.3.50 Regional Center Mixed-Use to permit unit-per-unit conversion of Lodging to Multi-Family

B. SUMMARY OF REQUEST:

The Community Development Department was approached by the new owner of Suburban Lodge in Bluffton about the possibility of converting the extended stay hotel into an apartment building. The Suburban Lodge has 150 extended stay units on 3.13 acres. The new owner wanted to convert the hotel unit per unit to efficiency apartments with long-term leases. The property is located in C5 Regional Mixed-Use where both hotels and multi-family are permitted uses. Multi-family, however, has a maximum density of 15 dwelling units per acre. The project was not able to move forward because the unit-per-unit conversion would result in a multi-family development with triple the density than what is permitted in the district.

Proposed Amendment: Staff directed the applicant to consider a text amendment that would allow for hotels that convert to multi-family developments to exceed the maximum permitted density with appropriate conditions attached. The applicant responded with a formal zoning amendment request that allows for a unit-to-unit conversion with the following conditions:

- The hotel shall have been in continuous operation for a minimum of five years.
- To the greatest extent practicable, the site shall be revised to comply with the existing standards for multi-family residential.
- The site shall meet the parking requirements for multi-family residential as established in Article 5, Division 5.5.

The proposed amendment is attached to this report.

Impact on Parking and Transportation: In analyzing the potential impacts of this proposed amendment, staff identified parking as the greatest concern. The Community Development Code only requires hotels to have one parking space per unit, while it requires efficiency apartments 1.25 spaces per unit. Converting from extended stay to permanent residency, there is a greater likelihood of households having more than one vehicle, and for residents to have visitors. Therefore, any conversion would need to provide adequate parking. Traffic impacts were not a major concern. The change of use would only result in a modest increase in trip generation (6 to 12%). For example, the conversion of an extended stay hotel of 150 units would increase the daily trips from 936 to 998; am Peak hour trips from 72 to 77; and pm peak hour trips from 83 to 93.

C. ANALYSIS: Sec. 7.7.30(C). Code Text Amendment Review Standards. The advisability of amending the text of this Development Code is a matter committed to the legislative discretion of the County Council and is not controlled by any one factor. In determining whether to adopt or deny the proposed text amendment, the County Council shall weigh the relevance of and consider whether, and the extent to which, the proposed amendment:

1. **Is consistent with the goals, objectives, and policies of the Comprehensive Plan:** The proposed amendment has the potential to introduce multi-family uses in areas dominated by retail and services. The Comprehensive Plan calls for promoting mixed-use development at higher density nodes along major travel corridors. This recommendation is in the Land Use, Affordable Housing (Recommendation 8-7), Economic Development (Recommendation 7-7), Energy (Recommendation 9-2), and Transportation (Recommendation 10-7) Chapters. The objective is to promote quality development that encourages internal trip capture, multiple modes of transportation, a mix of housing (including affordable housing), and energy efficiency.
2. **Is not in conflict with any provision of this Development Code or the Code of Ordinances:** The Community Development Code only requires hotels to have one parking space per unit, while it requires efficiency apartments 1.25 spaces per unit. This conflict has the potential of creating multi-family sites with inadequate parking.
3. **Is required by changed conditions:** The proposed amendment provides greater flexibility for a hotel to respond to market conditions.

4. **Addresses a demonstrated community need:** The proposed amendment has the potential to promote affordable and workforce housing by increasing the supply of efficiency and studio apartments.
5. **Is consistent with the purpose and intent of the zones in this Development Code, or would improve compatibility among uses and ensure efficient development within the County:** The Regional Center Mixed-Use (C5) Zone currently permits multi-family uses.
6. **Would result in a logical and orderly development pattern:** See item #5.
7. **Would not result in adverse impacts on the natural environment, including but not limited to water, air, noise, stormwater management, wildlife, vegetation, wetlands, and the natural functioning of the environment:** It is staff's opinion that the natural resource protection, stormwater and performance standards in the CDC will minimize impacts to the environment.

D. RECOMMENDATION: Staff recommends approval.

E. ATTACHMENTS:

- Proposed changes to the CDC
- Application

3.3.50 Regional Center Mixed Use (C5) Zone Standards

A. Purpose

The Regional Center Mixed Use (C5) Zone permits a full range of retail, service, and office uses. The Zone's intensity accommodates regional and community commercial and business activities. Uses include large, commercial activities that serve the entire County and highway-oriented businesses that need to be located on major highways. While this use intends high-quality, commercial character, the setback or build-to-line, landscaping and other design requirements provide a uniform streetscape that makes provision for pedestrian and transit access. The Zone is intended to be more attractive than commercial areas in other counties to maintain the attractive tourist and business environment and have minimal impact on surrounding residential areas. The Zone is not intended to be a strip along all arterials and collectors. In developing areas, the minimum depth of a parcel along an arterial or collector shall be 600'. The minimum zone size shall be 20 acres. In the older, built-up areas, new uses shall have depths and areas equal to or greater than similar uses in the area. This Zone shall be located in areas designated "regional commercial" in the Comprehensive Plan.

B. Building Placement

Setback (Distance from ROW/Property Line)	
Front	25' min.
Side:	
Side, Main Building	15' min.
Side, Ancillary Building	15' min.
Rear	10' min.

Lot Size	
Lot Size	21,780 SF min.
Width	150' min.

Note:

For development within a Traditional Community Plan meeting the requirements of Division 2.3, setback, minimum lot size and minimum site area requirements of the transect zone established and delineated on the regulating plan shall apply.

C. Building Form

Building Height	
All Buildings	3 stories max.
Ground Floor Finish Level	No minimum

D. Gross Density[1] and Floor Area Ratio

Density	15.0 d.u./acre max.[2]
Floor Area Ratio[2][3]	0.37 max.

[1]Gross Density is the total number of dwelling units on a site divided by the Base Site Area (Division 6.1.40.F)

[2]Lodging that is converted unit per unit to multi-family residential may exceed maximum density with the following conditions:

1. The hotel shall have been in continuous operation for a minimum of five years.
2. To the greatest extent practicable, the site shall be revised to comply with the existing standards for multi-family residential.
3. The site shall meet the parking requirements for multi-family residential in Article 5, Division 5.5.

[2][3]Requirement applies to non-residential buildings.

E. Parking

Required Spaces: Residential Uses	
Single-family detached	3 per unit
Single-family attached/duplex	2 per unit
Multi-family units	1.25 per unit
Accessory dwelling unit	1 per unit
Community residence	1 per bedroom
Live/work	2 per unit plus 1 per 300 GSF of work area

Required Spaces: Services or Retail Uses	
Retail, offices, services	1 per 300 GSF
Restaurant, café, coffee shop	1 per 150 GSF
Drive-through facility	Add 5 stacking spaces per drive-through
Gas station/fuel sales	1 per pump plus requirement for retail
Lodging: Bed and breakfast	2 spaces plus 1 per guest room
Lodging: Inn/hotel	1 per room

Required Spaces: Industrial Uses	
Light manufacturing, processing and packaging	1 per 500 GSF
Warehousing/distribution	1 per 2,000 GSF

For parking requirements for all other allowed uses see Table 5.5.40.B (Parking Space Requirements).

Childs, Barbara

From: Greenway, Eric
Sent: Wednesday, March 14, 2018 8:40 AM
To: Vaux, Tabor; Bennett, Ashley; Flewelling, Brian; Criscitiello, Anthony; Merchant, Robert; Larson, Eric
Cc: Gruber, Joshua; Harris, Cheryl; Keaveny, Thomas; Inglese, Christopher; Childs, Barbara; Spade, Heather
Subject: RE: Draft Agenda / Natural Resources Committee 031918
Attachments: 2-19-2018 Response to Hotel to Multi-Family Text Amendment.pdf; Hilton Head Island Response.pdf; Bluffton Suburban Lodge 021518.pdf

Good Morning,

Attached are the letters from the various jurisdictions pertaining to the Hotel to Apt. Conversion Amendment that is currently being considered by the NRC. We have not contacted the fire district since the same building codes will apply to the building and its access regardless of the building's use. The Community Development Department, during the drafting of this amendment, met with the appropriate officials regarding any special code concerns or requirements that may be needed due to the conversion language and the overall nature of the amendment. As result of those meetings and having determined no additional code issues needed addressing we have not sought additional input from the fire district. The fire code is regulated and enforced by County's Building Department.

Also, there was a question raised about overall occupancy rates between hotels and apartments and after some quick research we have determined that Beaufort County hotel vacancy rates are in the 36-40 percent range and apartments are in the 13-14 percent range. Therefore, we can probably expect around 40 vacant hotel rooms per day for every 100 rooms and 14 apartments per 100 units per month.

If you have any questions, please do not hesitate to contact me.

Ashley,

Please feel free to pass this email along to the remaining County Council members or other stakeholders that may need to see this.

Eric L. Greenway, AICP
Beaufort County
Community Development Department
PO Drawer 1228
Beaufort, SC 29901-1228
Phone: 843-255-2143

One body is smarter than any body and that is every body!

From: Vaux, Tabor
Sent: Tuesday, March 13, 2018 11:25 AM
To: Bennett, Ashley <abennett@bcgov.net>; Flewelling, Brian <brianf@bcgov.net>; Criscitiello, Anthony <tonyc@bcgov.net>; Merchant, Robert <robm@bcgov.net>; Greenway, Eric <egreenway@bcgov.net>; James, Gary

Lisa Sulka
Mayor
Larry Toomer
Mayor Pro Tempore
Marc Orlando
Town Manager

Council Members
Fred Hamilton
Dan Wood
Harry Lutz
Kimberly Chapman
Town Clerk

February 19, 2018

Robert Merchant, AICP
Assistant Director
Beaufort County Community Development
PO Drawer 1228
Beaufort, SC 29902

TRANSMITTED ELECTRONICALLY
robm@bcgov.net

Re: Proposed Text Amendment to the Beaufort County Community Development Code (CDC): Article 3, Section 3.3.50 Regional Center Mixed-Use to permit unit per unit conversion of Lodging to Multi-Family Uses

Dear Mr. Merchant,

Please accept this letter as the Town of Bluffton's official response to the request for comments on the proposed text amendment to the Beaufort County Community Development Code to permit a unit per unit conversion of Lodging to Multi-Family in the Regional Center Mixed-Use (C5) Zoning District. Bluffton Staff appreciates that the Beaufort County Planning Commission requested input from all municipalities in the County since this proposed text amendment has countywide implications.

Based on the information provided, this is a text amendment that will affect all hotels in the C5 Mixed Use Zone, however, the Applicant, Mr. Kronimus with KRA Architects, is working specifically for the owners of the Suburban Lodge. The hotel consists of 150 rooms located on SC Highway 278, which the owner intends to convert unit per unit to efficiency apartments with long-term leases. It is unknown by Bluffton Staff if any of these units are considered lock-out units. The C5 zoning district allows by right hotels and multi-family developments, however, multi-family developments have a maximum density of 15 units per acre. If the 150-room hotel (on 3.13 acres) was converted to multi-family units, it would equate to 48 units/acre, triple the density than what is permitted in the district for multi-family.

With the limited time to review the proposed text amendment and provide comments, Town of Bluffton Staff have multiple concerns we request be considered prior to final approval. While the text amendment will potentially affect all hotels that are located in the Regional Center Mixed-Use District, staff has concerns specifically with the Suburban Lodge site which include the following:

- Traffic
  - The Suburban Lodge is located along SC Highway 278 adjacent to McDonald's and Circle K gas station. There is only one access point to the road with no traffic signal to provide a safe left turn movement.

  - A recommendation would be to require a traffic assessment completed prior to any conversion to determine what traffic patterns would be affected by the change (ex. students traveling to and from school).
  - A recommendation would be to require that the property acquire a secondary access directly to Bluffton Parkway.

- Open Space
  - There is a lack of useable open space for residents.
  - A hotel use is not required to provide the same amount of useable open space as a multi-family development. With long-term leases, it is highly likely that there will be residents with children. There is no place available for amenities typically provided in a multi-family development (ex. playgrounds, walking trails, or open fields).

- Workforce Housing
  - While the Applicant states that there is a need for workforce housing in the region, there is no discussion about incentives, covenants, or deed restrictions that would maintain any of the units at an affordable rate based on Beaufort County's most recent Area Median Income. Town of Bluffton Staff would recommend that restrictive covenants are established to ensure that if these are indeed workforce housing units that they are guaranteed for a designated amount of time.

- Parking
  - A hotel use has a lower minimum parking requirement than a multi-family use. By allowing the conversion of unit per unit, there is automatically a twenty percent (20%) shortage of parking that places an undue burden on adjacent properties. The Community Development Code requires 1 space per hotel unit, for a 150 room hotel that is 150 parking spaces. A multi-family development with 150 apartments is required to have 1.25 spaces per apartment (188 parking spaces).

While this is not an exhausted listed due to the amount of time to review and provide a response, Town Staff would recommend that there is additional research to review the proposal and determine the implications there are for this type of land use change on a countywide level. If you would like to follow up with me regarding any of the concerns listed above, please don't hesitate to contact me at 843.706.4529 or by email at kicard@townofbluffton.com.

Sincerely,

Kevin P. Icard

Kevin P. Icard, AICP
Planning & Community Development Manager

Cc: Marc Orlando, ICMA-CM, Town Manager
Mayor and Town Council

TOWN OF HILTON HEAD ISLAND

One Town Center Court, Hilton Head Island, S.C. 29928
(843) 341-4600 Fax (843) 842-7728
www.hiltonheadislandsc.gov

David Bennett
Mayor

Kim W. Likins
Mayor Pro Tem

Council Members

David Ames
Marc A. Grant
William D. Harkins
Thomas W. Lennox
John J. McCann

Stephen G. Riley
Town Manager

February 16, 2018

Tony Criscitiello
Planning Director
100 Ribault Rd
Beaufort, SC 29901

RE: Text Amendment to the Beaufort County CDC – Hotel to MF Conversion

Dear Tony:

Thank you for submitting a copy of the application of the subject matter to the Town of Hilton Head Island. In the spirit of the Southern Beaufort County Regional Plan's (SCBRP) implementation strategies Town Staff has taken the opportunity to review the information and make the following comments:

Town staff echoes the concerns raised by the County planning staff and the Planning Commission. With the latest buzz around workforce housing needs the pressure to allow flexibility and creative solutions is likely to increase. While there are merits to the proposed conversion proposal, there are significant challenges related to building code compliance and meeting important design standards. In addition, the proposed amendments do not condition the conversion on meeting the stated goal of providing affordable, work force housing. Most affordable, workforce housing products include a minimum timeframe for the units to remain affordable, ensuring the benefits gained by the owner from favorable conversion are commensurate to the benefit provided to the public.

The Town agrees with language requiring an established period of operation (in this case 5 years) of a hotel use to qualify for conversion. Without this language the door would be open for developing higher density hotels with the thought of quick conversion to multifamily. In addition, effective implementation of the proposed 1:1 unit conversion rate would result in significant increases over the by right density for multifamily development. The Town suggests the county consider a conversion rate lower than a 1:1 ratio.

Finally, the Town understands that the amendment alone does not guarantee projects or conversions of existing sites. However, should they arise, every attempt to meet the intent and purpose of the County CDC should be made, including, but not limited to, parking standards, access management, design considerations and traffic impacts.

These comments are provided to for your consideration and review. Again, thanks for the opportunity to provide input.

Respectfully Submitted,

Charles Cousins, AICP, Director of Community Development

February 15, 2018

Tony Criscitiello
Beaufort County Planning Division
Post Office Drawer 1228
Beaufort, SC 29901-1228

Re: Proposed Regional Center Mixed-Use to permit unit-per-unit conversion of Lodging to Multi-Family

Dear Mr. Criscitiello,

I am writing this memo in the Planning Commission Recommendation for the Regional Center Mixed-Use to permit unit-per-unit Conversion of Lodging to Multi-Family. A formal request for school district support has not been requested. I would like to give the opinion of the school district on this development. While the Beaufort County School District is a proponent of economic growth and free enterprise, residential development produces an increased student population, dictating the need for additional facility capacity and staff resources. The provision of the additional educational facilities and workforce becomes the responsibility of the Beaufort County taxpayers and the Beaufort County School District. At this time there are no revenue sources available to the County or the school district to fund the additional school facilities and associated staff required for the continued residential growth in the Bluffton area.

The change of the Suburban Lodge from apartment dwelling to 150 multi-family units would attract families with school age children. Because of the possible addition of public school students and the lack of additional resources available to support those students, I would not recommend support of this residential development to the Beaufort County School District Board of Education. The County is currently investigating impact fees. I believe that this a project where impact fees should be considered. I would be able to support a development of this nature with appropriate impact fees in place to cover the educational need of the additional school age children projected for this development.

Sincerely,

Jeffery C. Moss, Ed.D
Superintendent, Beaufort County School District

Re: Rob Merchant, Beaufort County
Tonya Crosby, Beaufort County School District
Carol Crutchfield, Beaufort County School District
Michael Kronimus, KRA Architects

Childs, Barbara

From: Josh Tiller <josh@jktiller.com>
Sent: Wednesday, March 14, 2018 3:07 PM
To: Childs, Barbara
Cc: rschartz@villageparkgroup.com; Charles Norris; Lewis Hammet
Subject: March Natural Resources Meeting

Importance: High

Mrs. Childs,

I behalf of the applicants for both River Oaks (Malind Pointe) and Osprey Point (Malind Bluff) at Okatie Village, I am requesting that the Natural Resource Committee not place our projects on the March 2018 Natural Resource Committee agenda. Due to Monday's meeting to discuss the Traffic Impact Analysis, it has been determined that the time needed to address Colin Kinton's comments before the March meeting would not be adequate to provide a complete update to the TIA. Therefore, we would like to be postponed until the April 2018 NRC meeting.

Kind Regards,

JOSH K. TILLER, PLA, ASLA | President
2017 President, ASLA South Carolina
Clemson Architectural Foundation Trustee

J. K. TILLER ASSOCIATES, INC.
LAND PLANNING | LANDSCAPE ARCHITECTURE
181 Bluffton Road, Suite F203, Bluffton, South Carolina 29910
Voice: 843.815.4800 **Fax:** 843.815.4802
Web: www.jktiller.com **Facebook:** J. K. Tiller Associates

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ADD-ONS

The document(s) herein were provided to Council for information and/or discussion after release of the official agenda and backup items.

Topic:	Southern WildFire Risk Assessment
Date Submitted:	March 19, 2018
Submitted By:	Darryl Jones
Venue:	Natural Resources Committee

Topic: Southern WildFire Risk Assessment
Date Submitted: March 19, 2018
Submitted By: Darryl Jones
Venue: Natural Resources Committee

SOUTHERN WILDFIRE RISK ASSESSMENT SUMMARY REPORT

SOUTHERN FORESTERS

SOUTH CAROLINA FORESTRY COMMISSION

Beaufort County

March 2018

Report was generated using
www.southernwildfirerisk.com

Report version: 3.0

Report generated: 3/14/2018

Table of Contents

Disclaimer

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Users should also note that property boundaries included in any product do not represent an on- the-ground survey suitable for legal, engineering, or surveying purposes. They represent only the approximate relative locations.

Introduction

Welcome to the Southern Wildfire Risk Assessment Summary Report.

This tool allows users of the Professional Viewer application of the Southern Wildfire Risk Assessment (SWRA) web Portal (SouthWRAP) to define a specific project area and summarize wildfire related information for this area. A detailed risk summary report is generated using a set of predefined map products developed by the Southern Wildfire Risk Assessment project which have been summarized explicitly for the user defined project area. The report is generated in MS WORD format.

The report has been designed so that information from the report can easily be copied and pasted into other specific plans, reports, or documents depending on user needs. Examples include, but are not limited to, Community Wildfire Protection Plans, Local Fire Plans, Fuels Mitigation Plans, Hazard Mitigation Plans, Homeowner Association Risk Assessments, and Forest Management or Stewardship Plans. Formats and standards for these types of reports vary from state to state across the South, and accordingly SouthWRAP provides the SWRA information in a generic risk report format to facilitate use in any type of external document. The SouthWRAP Risk Summary Report also stands alone as a viable depiction of current wildfire risk conditions for the user defined project area.

SouthWRAP provides a consistent, comparable set of scientific results to be used as a foundation for wildfire mitigation and prevention planning in the South.

Results of the assessment can be used to help prioritize areas in the state where mitigation treatments, community interaction and education, or tactical analyses might be necessary to reduce risk from wildfires.

The SouthWRAP products included in this report are designed to provide the information needed to support the following key priorities:

- Identify areas that are most prone to wildfire
- Identify areas that may require additional tactical planning, specifically related to mitigation projects and Community Wildfire Protection Planning
- Provide the information necessary to justify resource, budget and funding requests
- Allow agencies to work together to better define priorities and improve emergency response, particularly across jurisdictional boundaries
- Define wildland communities and identify the risk to those communities
- Increase communication and outreach with local residents and the public to create awareness and address community priorities and needs
- Plan for response and suppression resource needs
- Plan and prioritize hazardous fuel treatment programs

To learn more about the SWRA project or to create a custom summary report, go to www.SouthWildfireRisk.com.

Products

Each product in this report is accompanied by a general description, table, chart and/or map. A list of available SouthWRAP products in this report is provided in the following table.

SouthWRAP Product	Description
Wildland Urban Interface (WUI)	Depicts where humans and their structures meet or intermix with wildland fuel
WUI Risk Index	Represents a rating of the potential impact of a wildfire on people and their homes
Community Protection Zones	Represents those areas designated as primary and secondary priorities for community protection planning
Burn Probability	Probability of an area burning given current landscape conditions, percentile weather, historical ignition patterns and historical fire prevention and suppression efforts
Wildfire Ignition Density	Likelihood of a wildfire starting based on historical ignition patterns
Characteristic Rate of Spread	Represents the speed with which a fire moves in a horizontal direction across the landscape
Characteristic Flame Length	Represents the distance between the tip and base of the flame
Fire intensity Scale	Quantifies the potential fire intensity for an area by orders of magnitude
Fire Type – Extreme	Represents the potential fire type (surface or canopy) under extreme percentile weather conditions
Surface Fuels	Contains the parameters needed to compute surface fire behavior characteristics
Dozer Operability Rating	Level of difficulty to operate a dozer in an area based on limitations associated with slope and vegetation type

Wildland Urban Interface

Description

The South is one of the fastest growing regions in the nation, with an estimated population growth of 1.5 million people per year. The South also consistently has the highest number of wildfires per year. Population growth is pushing housing developments further into natural and forested areas where most of these wildfires occur. This situation puts many lives and communities at risk each year.

In particular, the expansion of residential development from urban centers out into rural landscapes, increases the potential for wildland fire threat to public safety and the potential for damage to forest resources and dependent industries. This increase in population across the region will impact counties and communities that are located within the Wildland Urban Interface (WUI). The WUI is described as the area where structures and other human improvements meet and intermingle with undeveloped wildland or vegetative fuels. Population growth within the WUI substantially increases the risk from wildfire.

For the **Beaufort SWRA** project area, it is estimated that **156,913** people or **97 percent** of the total project area population (162,147) live within the WUI.

The Wildland Urban Interface (WUI) layer reflects housing density depicting where humans and their structures meet or intermix with wildland fuels.

WUI housing density is categorized based on the standard Federal Register and U.S. Forest Service SILVIS data set categories, long considered a de facto standard for depicting WUI. However, in the SWRA WUI data the number of housing density categories is

extended to provide a better gradation of housing distribution to meet specific requirements for fire protection planning activities. While units of the actual data set are in *houses per sq. km.*, the data is presented as the *number of houses per acre* to aid with interpretation and use by fire planners in the South.

In the past, conventional wildland urban interface data sets, such as USFS SILVIS, have been used to reflect these concerns. However, USFS SILVIS and other existing data sources do not provide the level of detail for defining population living in the wildland as needed by Southern state WUI specialists and local fire protection agencies.

The new SWRA WUI 2012 dataset is derived using advanced modeling techniques based on the SWRA Where People Live (housing density) dataset and 2012 LandScan population count data available from the Department of Homeland Security, HSIP Freedom Data Set. WUI is simply a subset of the Where People Live dataset. The primary difference between the WPL and WUI is that populated areas surrounded by sufficient non-burnable areas (i.e. interior urban areas) are removed from the Where People Live data set, as these areas are not expected to be directly impacted by a wildfire. Simply put, the SWRA WUI is the SWRA WPL data with the urban core areas removed.

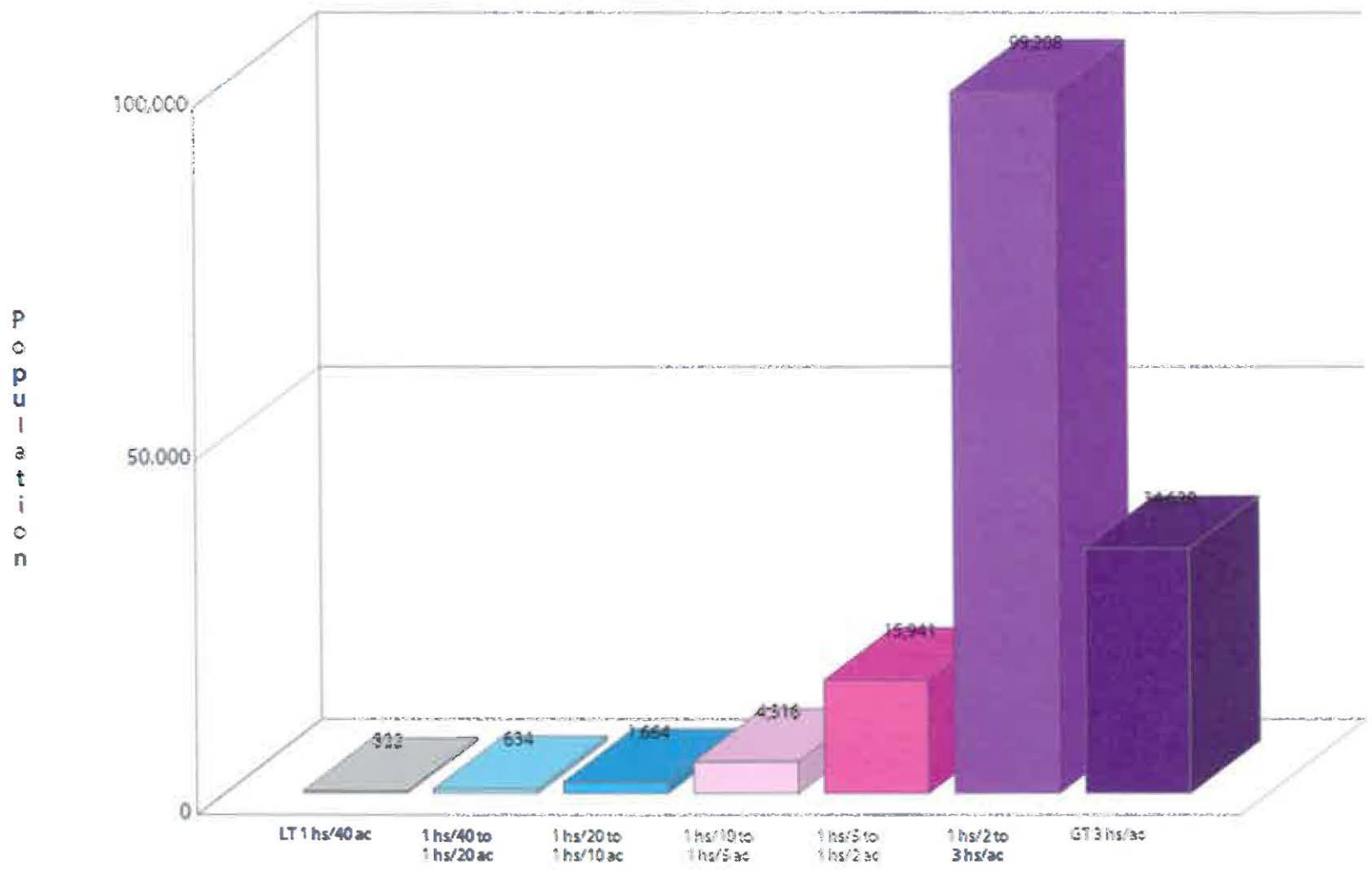
Data is modeled at a 30-meter cell resolution, which is consistent with other SWRA layers. The following table shows the total population for each WUI area within the project area.

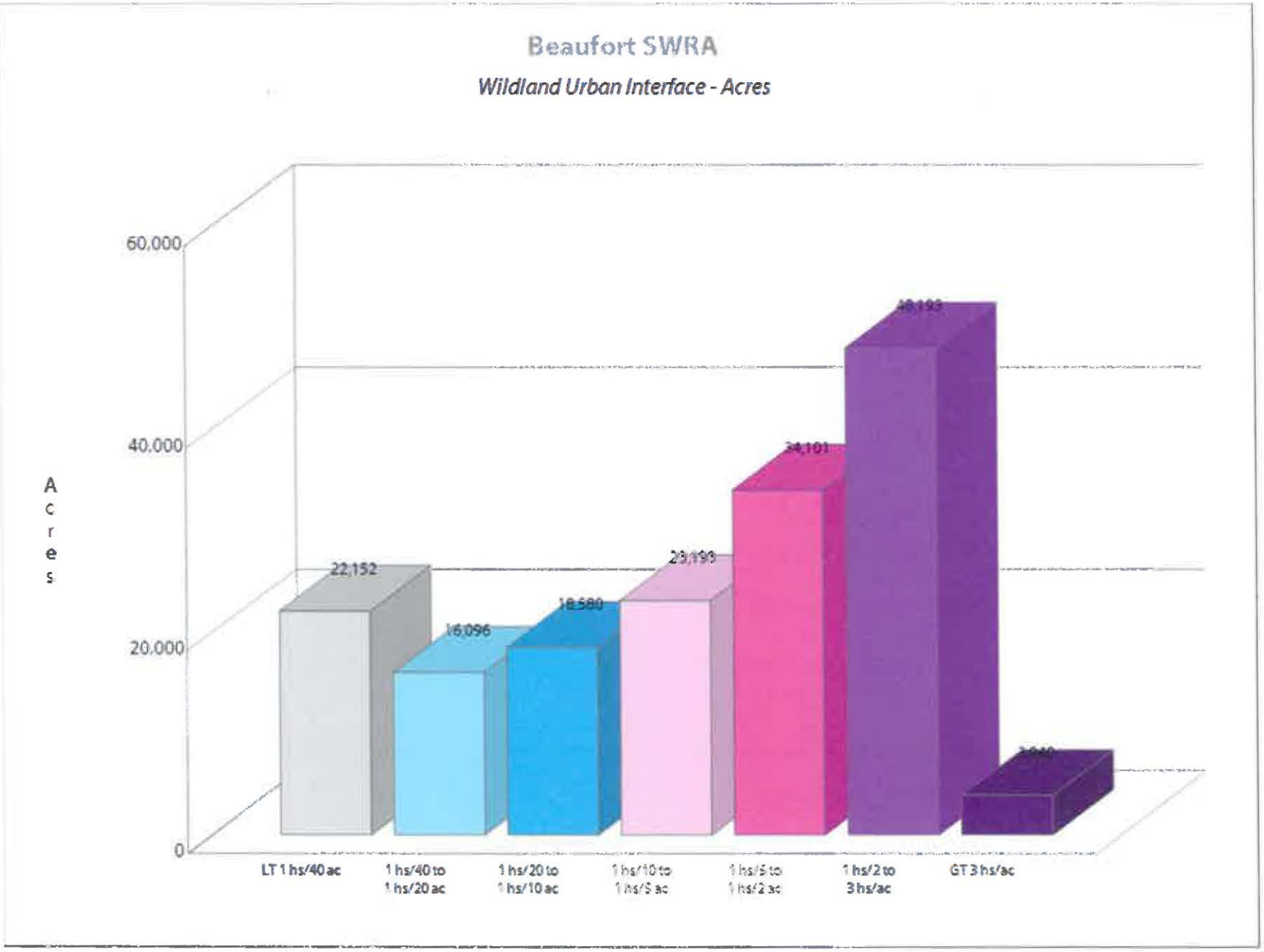
WUI – Population and Acres

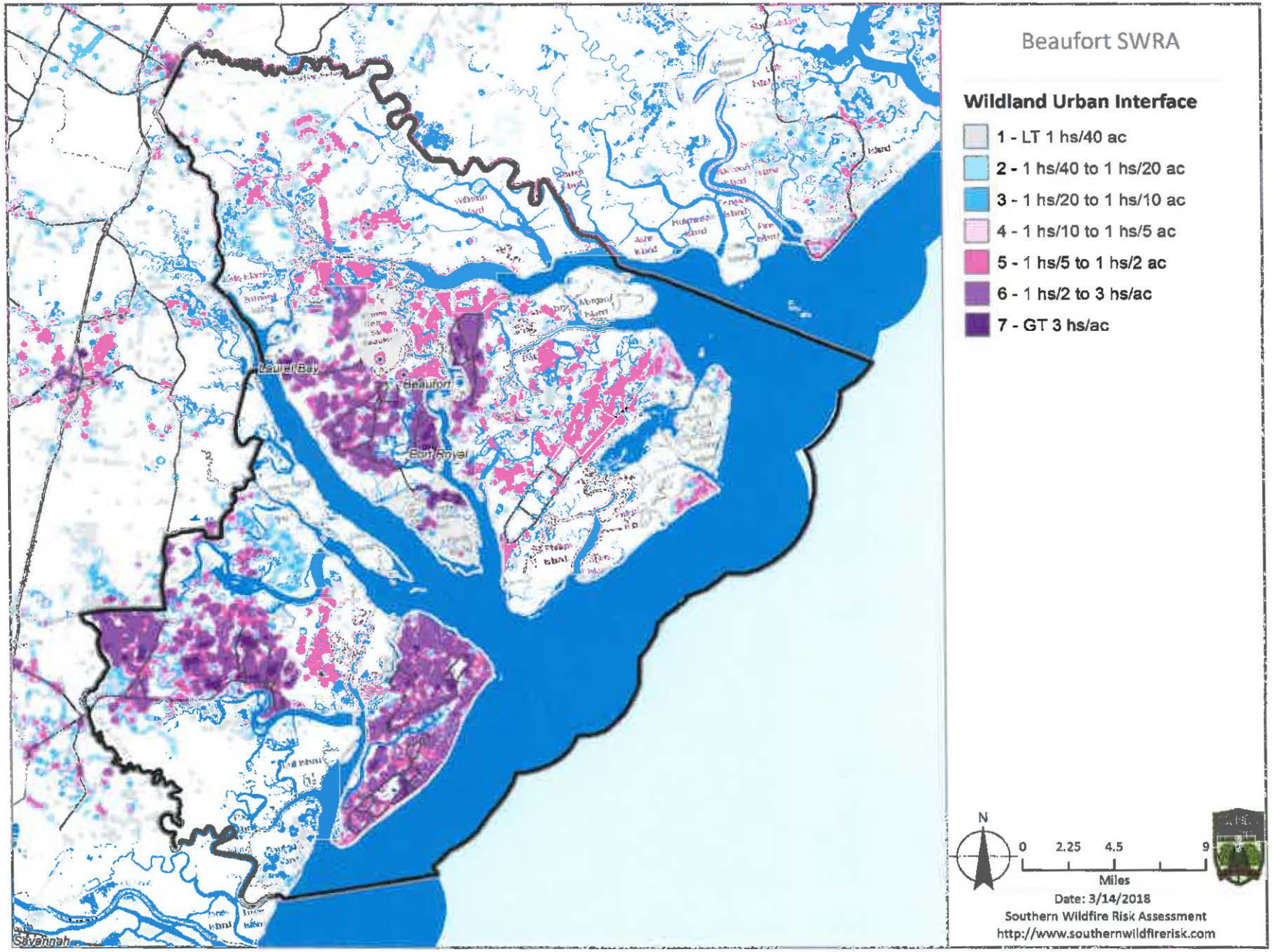
Housing Density	WUI Population	Percent of WUI Population	WUI Acres	Percent of WUI Acres
LT 1hs/40ac	322	0.2%	22,152	13.3%
1hs/40ac to 1hs/20ac	634	0.4%	16,096	9.7%
1hs/20ac to 1hs/10ac	1,664	1.1%	18,580	11.2%
1hs/10ac to 1hs/5ac	4,516	2.9%	23,193	14.0%
1hs/5ac to 1hs/2ac	15,941	10.2%	34,101	20.5%
1hs/2ac to 3hs/1ac	99,208	63.2%	48,193	29.0%
GT 3hs/1ac	34,628	22.1%	3,940	2.4%
Total	156,913	100.0%	166,256	100.0%

Beaufort SWRA

Wildland Urban Interface - Population




Beaufort SWRA
Wildland Urban Interface - Acres
Acres
60,000
40,000
20,000
0
22,152
16,096
18,580
29,199
34,101
48,193
LT 1 hs/40 ac
1 hs/40 to 1 hs/20 ac
1 hs/20 to 1 hs/10 ac
1 hs/10 to 1 hs/5 ac
1 hs/5 to 1 hs/2 ac
1 hs/2 to 3 hs/ac
GT 3 hs/ac


Beaufort SWRA
Wildland Urban Interface
1 - LT 1 hs/40 ac
2 - 1 hs/40 to 1 hs/20 ac
3 - 1 hs/20 to 1 hs/10 ac
4 - 1 hs/10 to 1 hs/5 ac
5 - 1 hs/5 to 1 hs/2 ac
6 - 1 hs/2 to 3 hs/ac
7 - GT 3 hs/ac
Beaufort
Port Royal
Savannah
N
0 2.25 4.5 9
Miles
Date: 3/14/2018
Southern Wildfire Risk Assessment
http://www.southernwildfirerisk.com

WUI Risk Index

Description

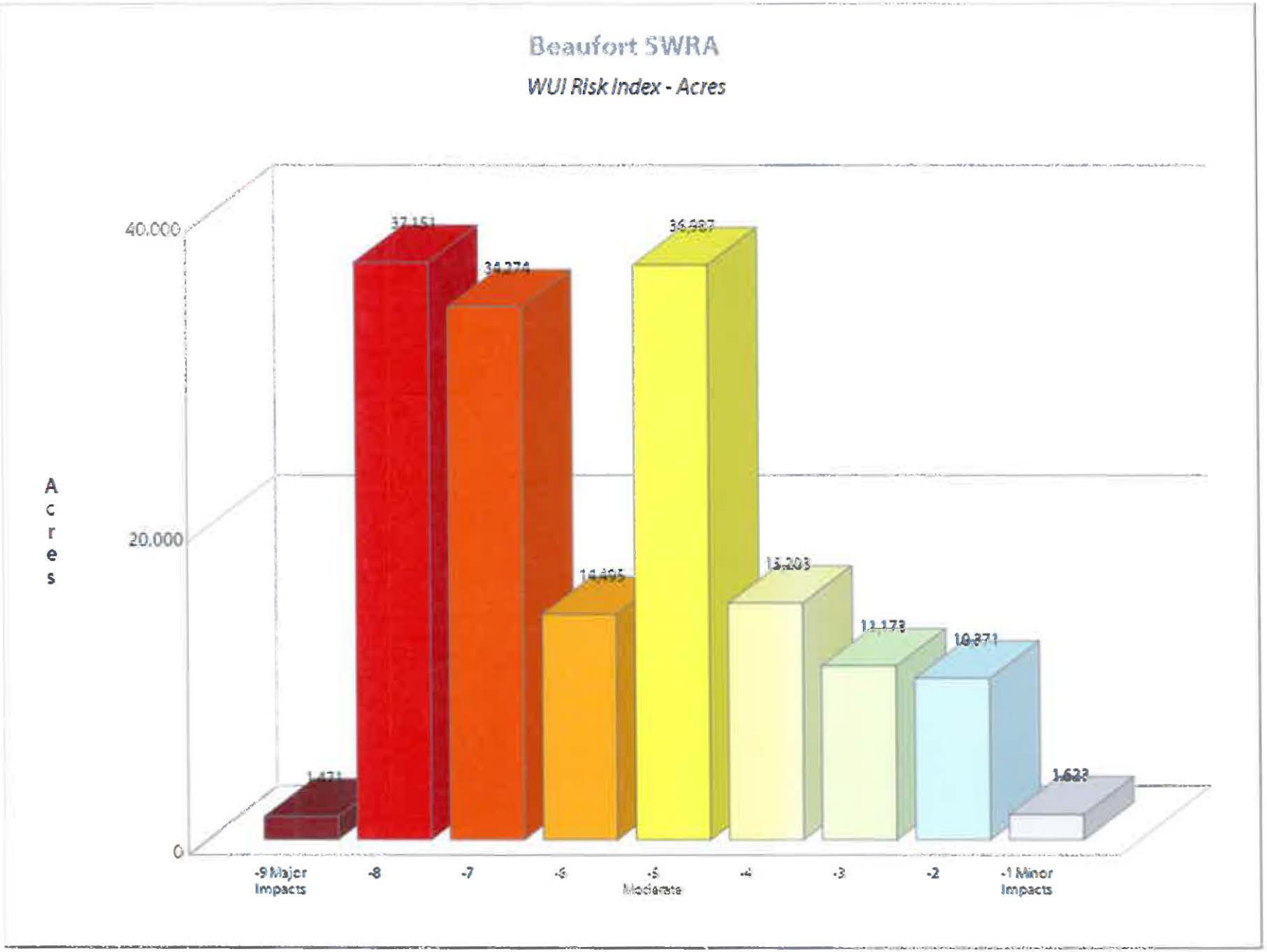
The Wildland Urban Interface (WUI) Risk Index layer is a rating of the potential impact of a wildfire on people and their homes. The key input, WUI, reflects housing density (houses per acre) consistent with Federal Register National standards. The location of people living in the Wildland Urban Interface and rural areas is key information for defining potential wildfire impacts to people and homes.

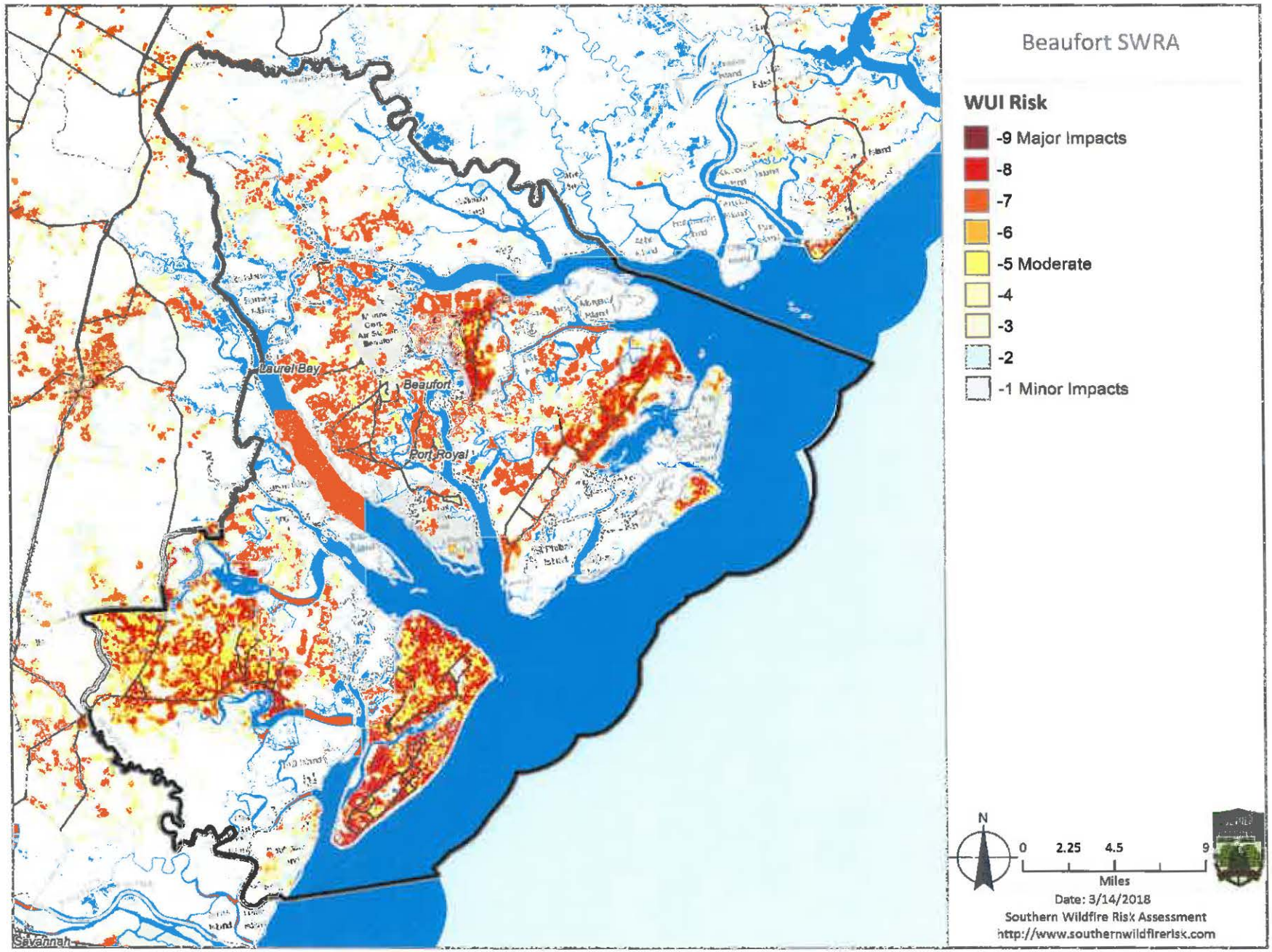
The WUI Risk Rating is derived using a Response Function modeling approach. Response functions are a method of assigning a net change in the value to a *resource* or *asset* based on susceptibility to fire at different intensity levels, such as flame length. The range of values is from -1 to -9, with -1 representing the least negative impact and -9 representing the most negative impact. For example, areas with high housing density and high flame lengths are rated -9 while areas with low housing density and low flame lengths are rated -1.

To calculate the WUI Risk Rating, the WUI housing density data was combined with Flame Length data and response functions were defined to represent potential impacts. The response functions were defined by a team of experts based on values defined by the SWRA Update Project technical team. By combining flame length with the WUI housing density data, you can determine where the greatest potential impact to homes and people is likely to occur.

Fire intensity data is modeled to incorporate penetration into urban fringe areas so that outputs better reflect real world conditions for fire spread and impact in fringe urban interface areas. With this enhancement, houses in urban areas adjacent to wildland fuels are incorporated into the WUI risk modeling. All areas in the South have the WUI Risk Index calculated consistently, which allows for comparison and ordination of areas across the entire region. Data is modeled at a 30-meter cell resolution, which is consistent with other SWRA layers.

Class	Acres	Percent
-9 Major Impacts	1,471	0.9%
-8	37,151	22.8%
-7	34,274	21.1%
-6	14,495	8.9%
-5 Moderate	36,987	22.7%
-4	15,203	9.3%
-3	11,173	6.9%
-2	10,371	6.4%
-1 Minor Impacts	1,623	1.0%
Total	**162,749**	**100.0%**


Beaufort SWRA
WUI Risk Index - Acres
Acres
40,000
20,000
0
37,151
34,274
18,495
36,987
13,203
11,173
10,371
1,623
-9 Major Impacts
-8
-7
-6
-5 Moderate
-4
-3
-2
-1 Minor Impacts


Beaufort SWRA
WUI Risk
-9 Major Impacts
-8
-7
-6
-5 Moderate
-4
-3
-2
-1 Minor Impacts
Laurel Bay
Beaufort
Port Royal
Savannah
N
0
2.25
4.5
9
Miles
Date: 3/14/2018
Southern Wildfire Risk Assessment
http://www.southernwildfirerisk.com

Community Protection Zones

Description

Community Protection Zones (CPZ) represent those areas considered highest priority for mitigation planning activities. CPZs are based on an analysis of the Where People Live housing density data and surrounding fire behavior potential. Rate of Spread data is used to determine the areas of concern around populated areas that are within a 2-hour fire spread distance. This is referred to as the Secondary CPZ.

General consensus among fire planners is that for fuel mitigation treatments to be effective in reducing wildfire hazard, they must be conducted within a close distance of a community. In the South, the WUI housing density has been used to reflect populated areas in place of community boundaries (Primary CPZ). This ensures that CPZs reflect where people are living in the wildland, not jurisdictional boundaries.

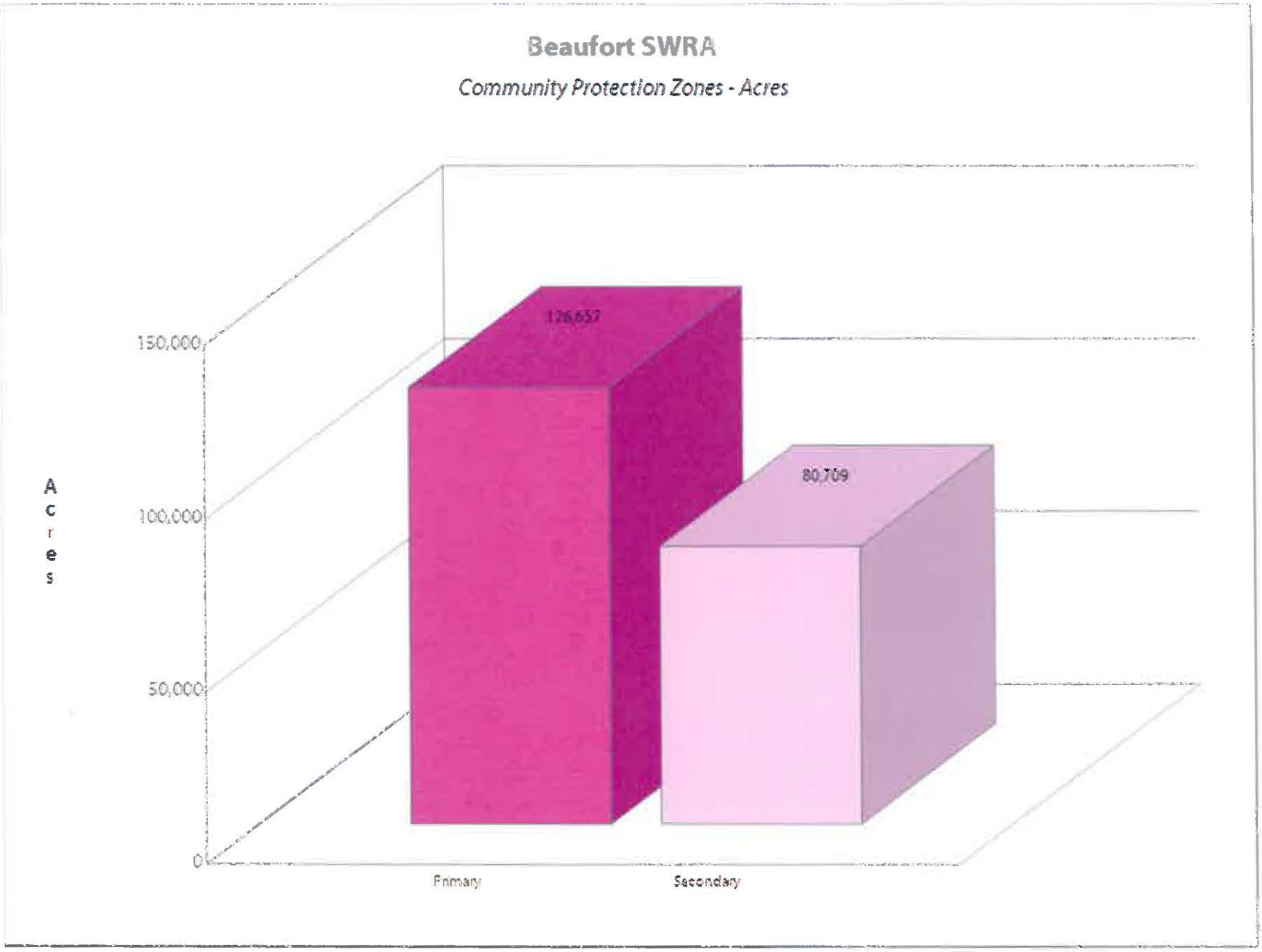
Secondary CPZs represent a variable width buffer around populated areas that are within a 2-hour fire spread distance. Accordingly, CPZs will extend farther in areas where rates of spread are greater and less in areas where minimal rate of spread potential exists. Secondary CPZ boundaries inherently incorporate fire behavior conditions.

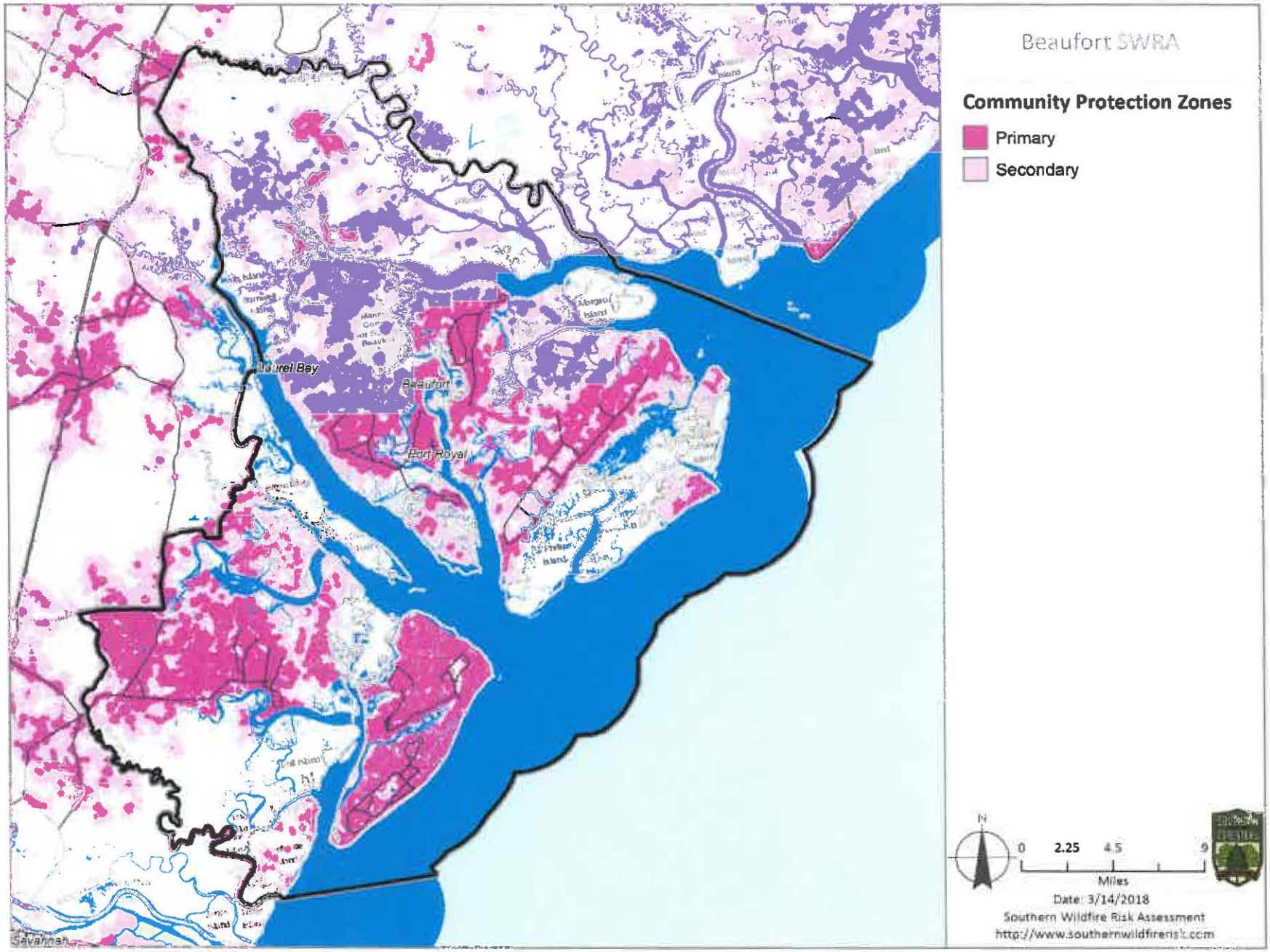
Primary CPZs reflect areas with a predefined housing density, such as greater than 1 house per 20 acres. Secondary CPZs are the areas around Primary CPZs within a 2 hour fire spread distance.

All areas in the South have the CPZs calculated consistently, which allows for comparison and ordination of areas across the entire region. Data is modeled at a 30-meter cell resolution, which is consistent with other SWRA layers.

Community Protection Zones - Acres

Class	Acres	Percent
Primary	126,657	61.1%
Secondary	80,709	38.9%
Total	**207,366**	**100.0%**


Beaufort SWRA
Community Protection Zones - Acres
Acres
150,000
100,000
50,000
0
126,657
80,709
Primary
Secondary


Beaufort SWRA
Community Protection Zones
Primary
Secondary
Laurel Bay
Beaufort
Port Royal
Morgan Island
Savannah
N
0
2.25
4.5
9
Miles
Date: 3/14/2018
Southern Wildfire Risk Assessment
http://www.southernwildfirerisk.com

Burn Probability

Description

The Burn Probability (BP) layer depicts the probability of an area burning given current landscape conditions, percentile weather, historical ignition patterns and historical fire prevention and suppression efforts.

Describe in more detail, it is the tendency of any given pixel to burn, given the static landscape conditions depicted by the LANDFIRE Refresh 2008 dataset (as resampled by FPA), contemporary weather and ignition patterns, as well as contemporary fire management policies (entailing considerable fire prevention and suppression efforts).

The BP data does not, and is not intended to, depict fire-return intervals of any vintage, nor do they indicate likely fire footprints or routes of travel. Nothing about the expected shape or size of any actual fire incident can be interpreted from the burn probabilities. Instead, the BP data, in conjunction with the Fire Program Analysts FIL layers, are intended to support an actuarial approach to quantitative wildfire risk analysis (e.g., see Thompson et al. 2011).

Values in the Burn Probability (BP) data layer indicate, for each pixel, the number of times that cell was burned by an FSim-modeled fire, divided by the total number of annual weather scenarios simulated. Burn probability raster data was generated using the large fire simulator - FSim - developed for use in the Fire Program Analysis (FPA) project. FSim uses historical weather data and current landcover data for discrete geographical areas (Fire Planning Units - FPUs) and simulates fires in these FPUs. Using these simulated fires, an overall burn probability and marginal burn probabilities at four fire intensities (flame lengths) are returned by FSim for each 270m pixel in the FPU.

The fire growth simulations, when run repeatedly with different ignition locations and weather streams, generate burn probabilities and fire behavior distributions at each landscape location (i.e., cell or pixel). Results are objectively evaluated through comparison with historical fire patterns and statistics, including the mean annual burn probability and fire size distribution, for each FPU. This evaluation is part of the FSim calibration process for each FPU, whereby simulation inputs are adjusted until the slopes of the historical and modeled fire size distributions are similar and the modeled average burn probability falls within an acceptable range of the historical reference value (i.e., the 95% confidence interval for the mean).

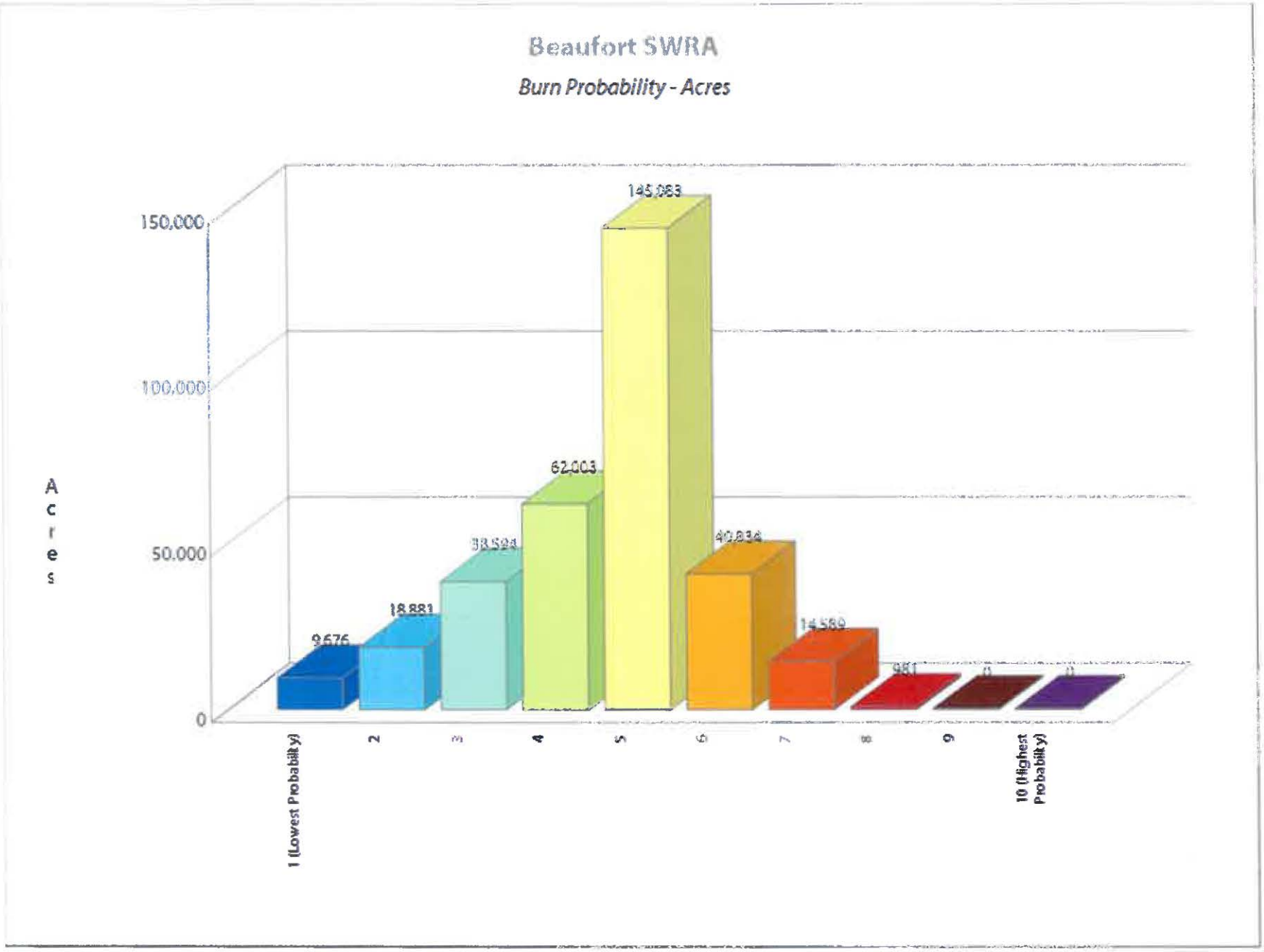
Please refer to the metadata available for this dataset for a detailed description of the data processing methods, assumptions and references that pertain to the development of this data. This information is available from the USFS Missoula Fire Sciences Laboratory.

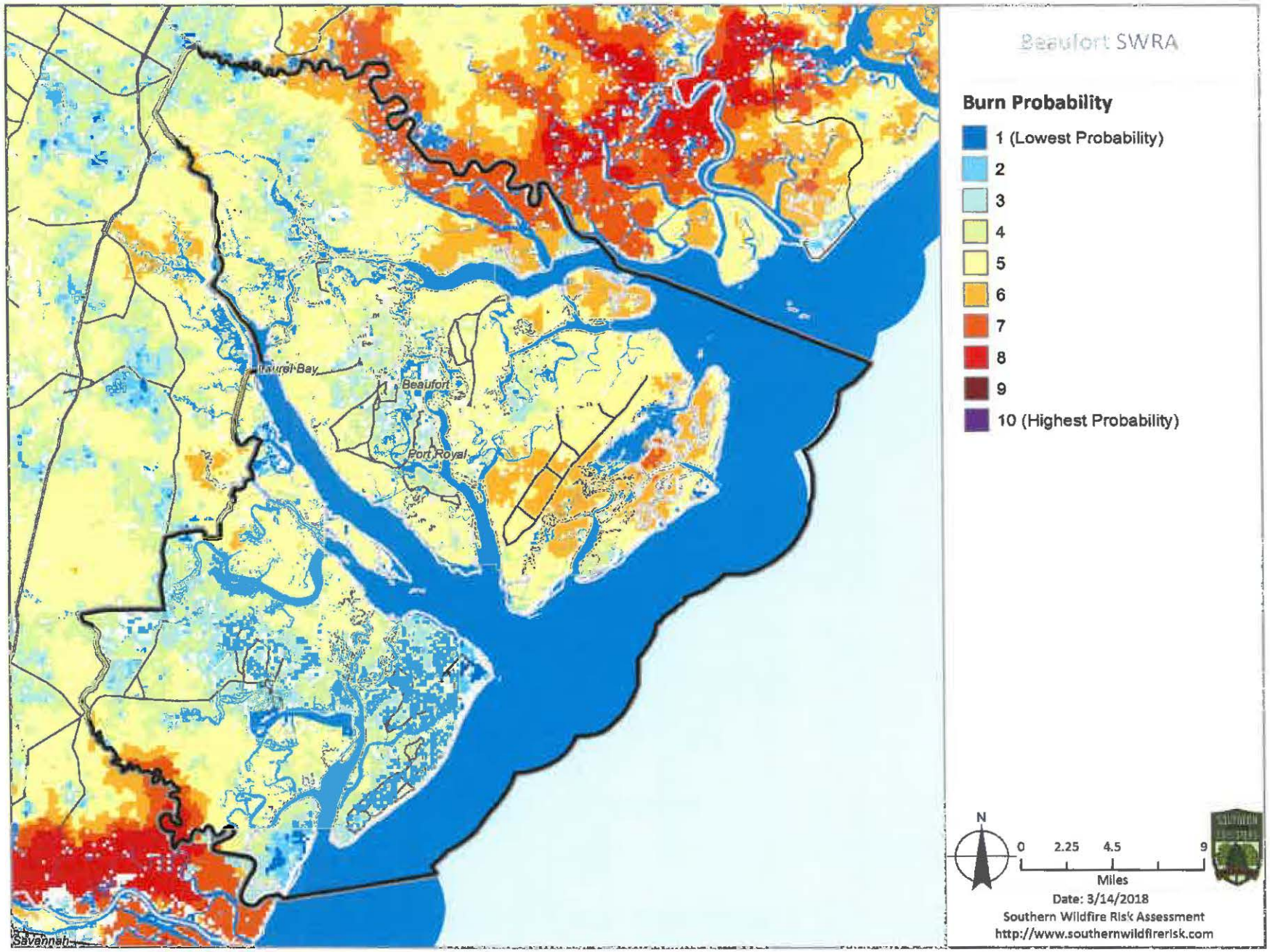
Please refer to the web site link in the report References to obtain more detailed descriptions of FPA and the related data products such as Burn Probability.

Burn Probability replaces the Wildland Fire Susceptibility Index (WFSI) layer developed in the original SWRA project completed in 2005.

Burn Probability - Acres

Class	Acres	Percent
1	9,676	2.9%
2	18,881	5.7%
3	38,594	11.7%
4	62,003	18.8%
5	145,083	43.9%
6	40,834	12.3%
7	14,589	4.4%
8	981	0.3%
9	0	0.0%
10	0	0.0%
Total	**330,640**	**100.0%**


Beaufort SWRA
Burn Probability - Acres
Acres
150,000
100,000
50,000
0
145,083
62,003
38,524
18,881
9,676
14,589
961
1 (Lowest Probability)
2
3
4
5
6
7
8
9
10 (Highest Probability)


Beaufort SWRA
Burn Probability
1 (Lowest Probability)
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7
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Wildfire Behavior Outputs

Description

Fire behavior is the manner in which a fire reacts to the following environmental influences:

1. **Fuels**
2. **Weather**
3. **Topography**

Fire behavior characteristics are attributes of wildland fire that pertain to its spread, intensity, and growth. Fire behavior characteristics utilized in the Southern Wildfire Risk Assessment (SWRA) include fire type, rate of spread, flame length and fire intensity scale. These metrics are used to determine the potential fire behavior under different weather scenarios. Areas that exhibit moderate to high fire behavior potential can be identified for mitigation treatments, especially if these areas are in close proximity to homes, business, or other assets.

Fuels

The SWRA includes composition and characteristics for both surface fuels and canopy fuels. Significant increases in fire behavior will be captured if the fire has the potential to transition from a surface fire to a canopy fire.

Fuel datasets required to compute both surface and canopy fire potential include:

- **Surface Fuels**, generally referred to as fire behavior fuel models, provide the input parameters needed to compute surface fire behavior.
- **Canopy Cover** is the horizontal percentage of the ground surface that is covered by tree crowns. It is used to compute wind reduction factors and shading.
- **Canopy Ceiling Height/Stand Height** is the height above the ground of the highest canopy layer where the density of the crown mass within the layer is high enough to support vertical movement of a fire. A good estimate of canopy ceiling height would be the average height of the dominant and co-dominant trees in a stand. It is used for computing wind reduction to midflame height and spotting distances from torching trees (Fire Program Solutions, L.L.C, 2005).
- **Canopy Base Height** is the lowest height above the ground above which there is sufficient canopy fuel to propagate fire vertically (Scott & Reinhardt, 2001). Canopy base height is a property of a plot, stand, or group of trees, not of an individual tree. For fire modeling, canopy base height is an effective value that incorporates ladder fuel, such as tall shrubs and small trees. Canopy base height is used to determine if a surface fire will transition to a canopy fire.
- **Canopy Bulk Density** is the mass of available canopy fuel per unit canopy volume (Scott & Reinhardt, 2001). Canopy bulk density is a bulk property of a stand, plot, or group of

trees, not of an individual tree. Canopy bulk density is used to predict whether an active crown fire is possible.

Weather

Environmental weather parameters needed to compute fire behavior characteristics include 1-hour, 10-hour, and 100-hour timelag fuel moistures, herbaceous fuel moisture, woody fuel moisture, and the 20-foot 10 minute average wind speed. To collect this information, weather influence zones were established across the region. A weather influence zone is an area where for analysis purposes the weather on any given day is considered uniform. Within each weather influence zone, historical daily weather is gathered to compile a weather dataset from which four percentile weather categories are created. The percentile weather categories are intended to represent low, moderate, high, and extreme fire weather days. Fire behavior outputs are computed for each percentile weather category to determine fire potential under different weather scenarios.

The four percentile weather categories include:

- Low Weather Percentile (0 – 15%)
- Moderate Weather Percentile (16 – 90%)
- High Weather Percentile (91 – 97%)
- Extreme Weather Percentile (98 – 100%)

Topography

Topography datasets required to compute fire behavior characteristics are elevation, slope and aspect.

FIRE BEHAVIOR CHARACTERISTICS

Fire behavior characteristics provided in this report include:

- **Characteristic Rate of Spread**
- **Characteristic Flame Length**
- **Characteristic Fire Intensity Scale**
- **Fire Type - Extreme**

Characteristic Rate of Spread

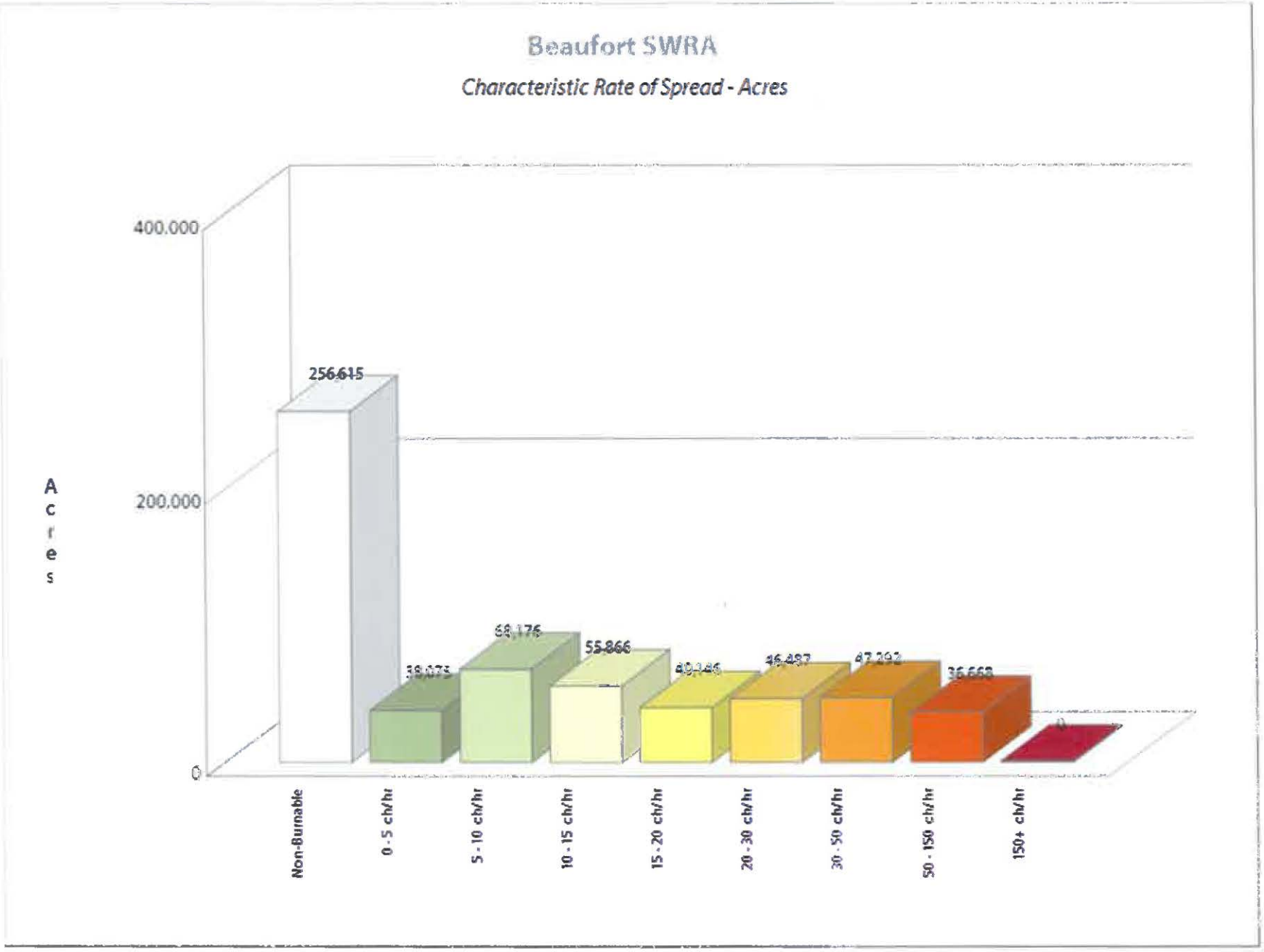
Characteristic Rate of Spread is the typical or representative rate of spread of a potential fire based on a weighted average of four percentile weather categories. Rate of spread is the speed with which a fire moves in a horizontal direction across the landscape, usually expressed in chains per hour (ch/hr) or feet per minute (ft/min). For purposes of the Southern Wildfire Risk Assessment, this measurement represents the maximum rate of spread of the fire front. Rate of Spread is the metric used to derive the Community Protection Zones.

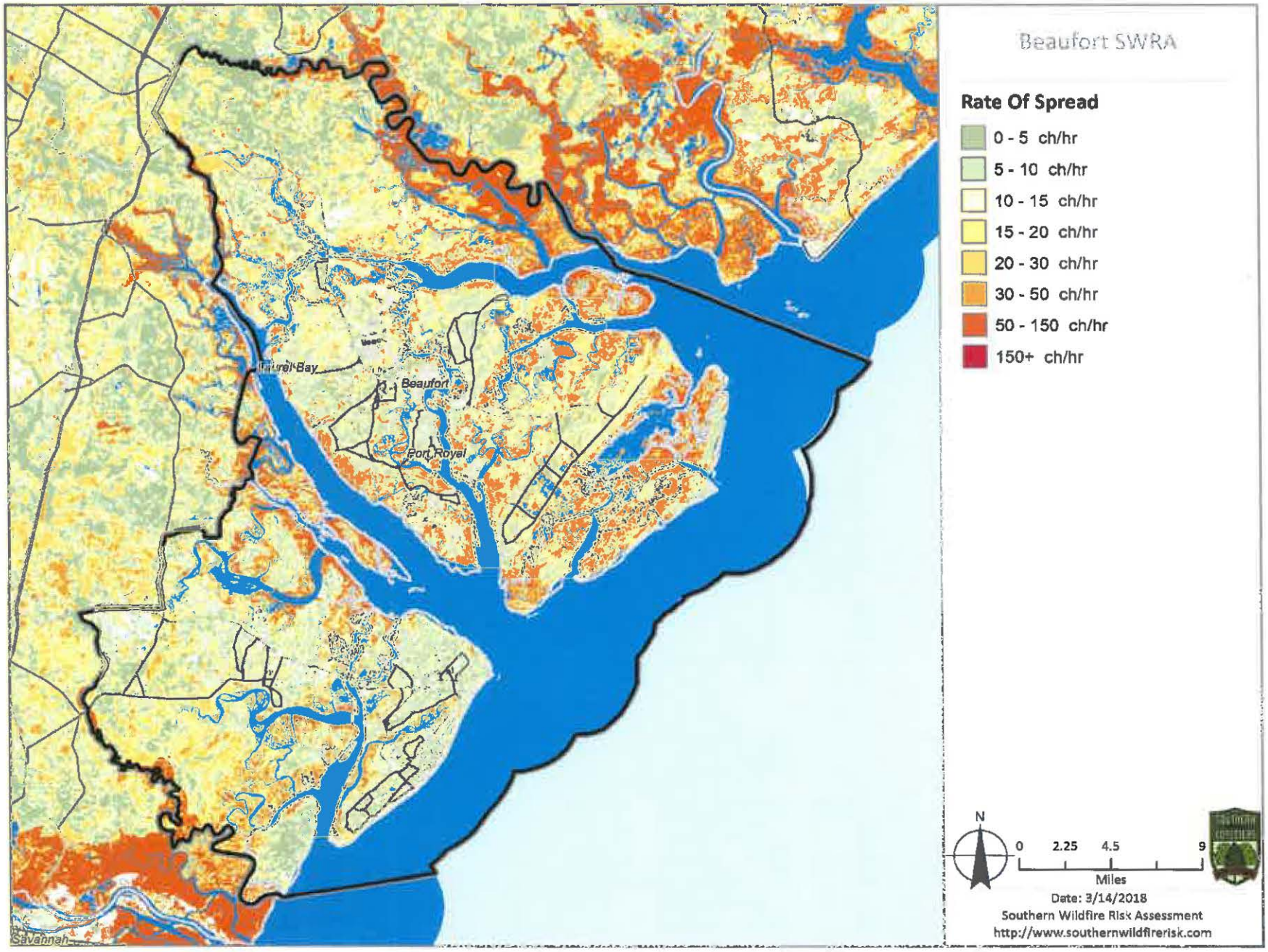
Rate of spread is a fire behavior output, which is influenced by three environmental factors - fuels, weather, and topography. Weather is by far the most dynamic variable as it changes frequently. To account for this variability, four percentile weather categories were created from historical weather observations to represent low, moderate, high, and extreme weather days for each weather influence zone in the South. A weather influence zone is an area where, for analysis purposes, the weather on any given day is considered uniform.

For all Southern states, except Florida and Texas, this dataset was derived from updated fuels and canopy data as part of the 2010 SWRA Update Project recently completed in May 2014. For Texas, the 2010 Texas risk update data is portrayed. For Florida, the 2010 Florida risk assessment update data is shown.

Characteristic Rate of Spread – Acres

Rate of Spread	Acres	Percent
Non-Burnable	256,615	43.5%
0 - 5 (ch/hr)	38,075	6.5%
5 - 10 (ch/hr)	68,176	11.6%
10 – 15 (ch/hr)	55,866	9.5%
15 - 20 (ch/hr)	40,146	6.8%
20 - 30 (ch/hr)	46,487	7.9%
30 - 50 (ch/hr)	47,292	8.0%
50 - 150 (ch/hr)	36,668	6.2%
150 + (ch/hr)	0	0.0%
Total	**589,326**	**100.0%**


Beaufort SWRA
Characteristic Rate of Spread - Acres
400,000
200,000
0
Acres
256,615
38,073
68,176
55,866
40,146
46,487
47,292
36,668
0
Non-Burnable
0 - 5 ch/hr
5 - 10 ch/hr
10 - 15 ch/hr
15 - 20 ch/hr
20 - 30 ch/hr
30 - 50 ch/hr
50 - 150 ch/hr
150+ ch/hr


Beaufort SWRA
Rate Of Spread
0 - 5 ch/hr
5 - 10 ch/hr
10 - 15 ch/hr
15 - 20 ch/hr
20 - 30 ch/hr
30 - 50 ch/hr
50 - 150 ch/hr
150+ ch/hr
Laurel Bay
Beaufort
Port Royal
Savannah
N
0 2.25 4.5 9
Miles
Date: 3/14/2018
Southern Wildfire Risk Assessment
http://www.southernwildfirerisk.com

Characteristic Flame Length

Characteristic Flame Length is the typical or representative flame length of a potential fire based on a weighted average of four percentile weather categories. Flame Length is defined as the distance between the flame tip and the midpoint of the flame depth at the base of the flame, which is generally the ground surface. It is an indicator of fire intensity and is often used to estimate how much heat the fire is generating. Flame length is typically measured in feet (ft). Flame length is the measure of fire intensity used to generate the response index outputs for the SWRA.

Flame length is a fire behavior output, which is influenced by three environmental factors - fuels, weather, and topography. Weather is by far the most dynamic variable as it changes frequently. To account for this variability, four percentile weather categories were created from historical weather observations to represent low, moderate, high, and extreme weather days for each weather influence zone in the South. A weather influence zone is an area where, for analysis purposes, the weather on any given day is considered uniform.

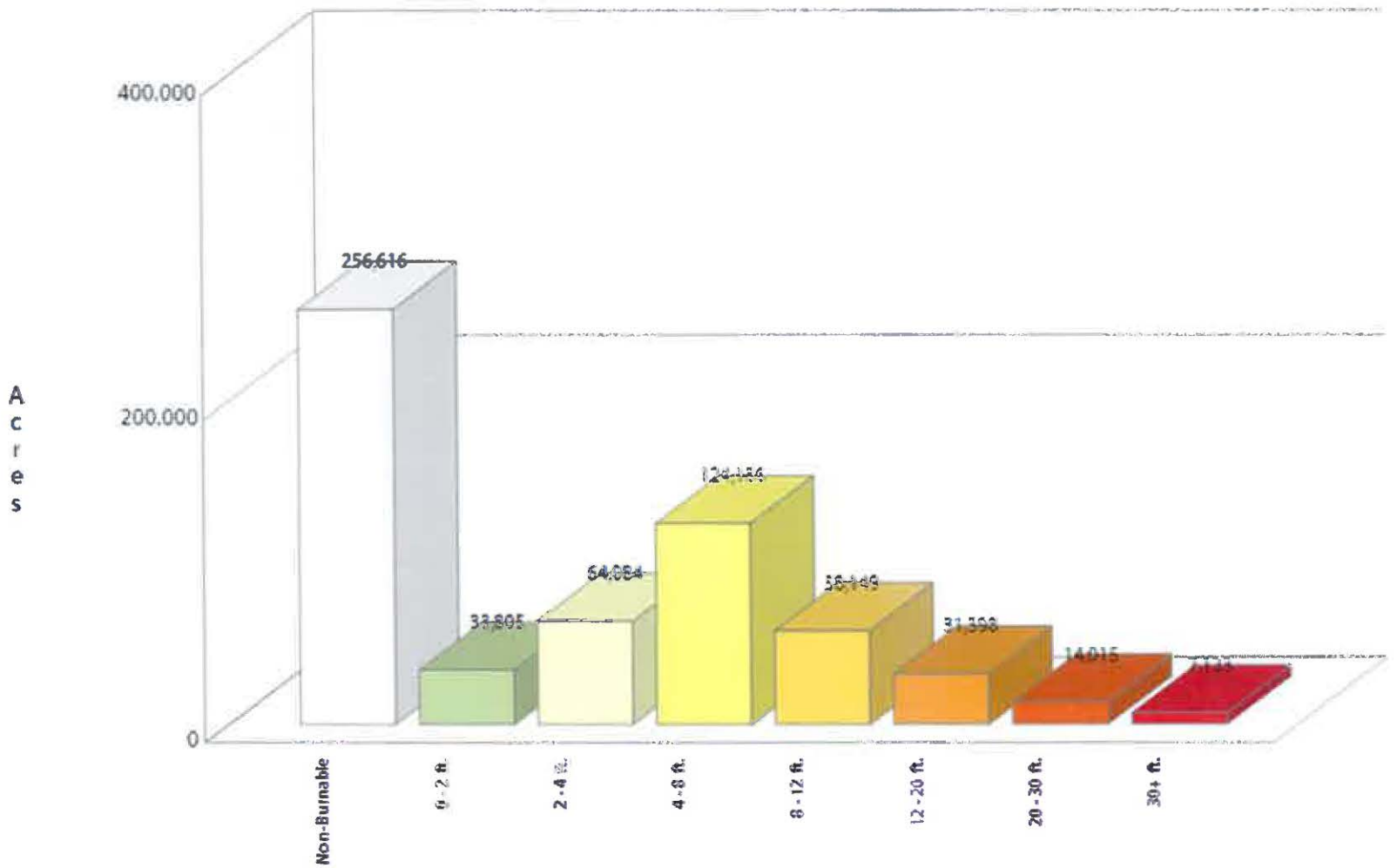
For all Southern states, except Florida and Texas, this dataset was derived from updated fuels and canopy data as part of the 2010 SWRA Update Project recently completed in May 2014. For Texas, the 2010 Texas risk update data is portrayed. For Florida, the 2010 Florida risk assessment update data is shown.

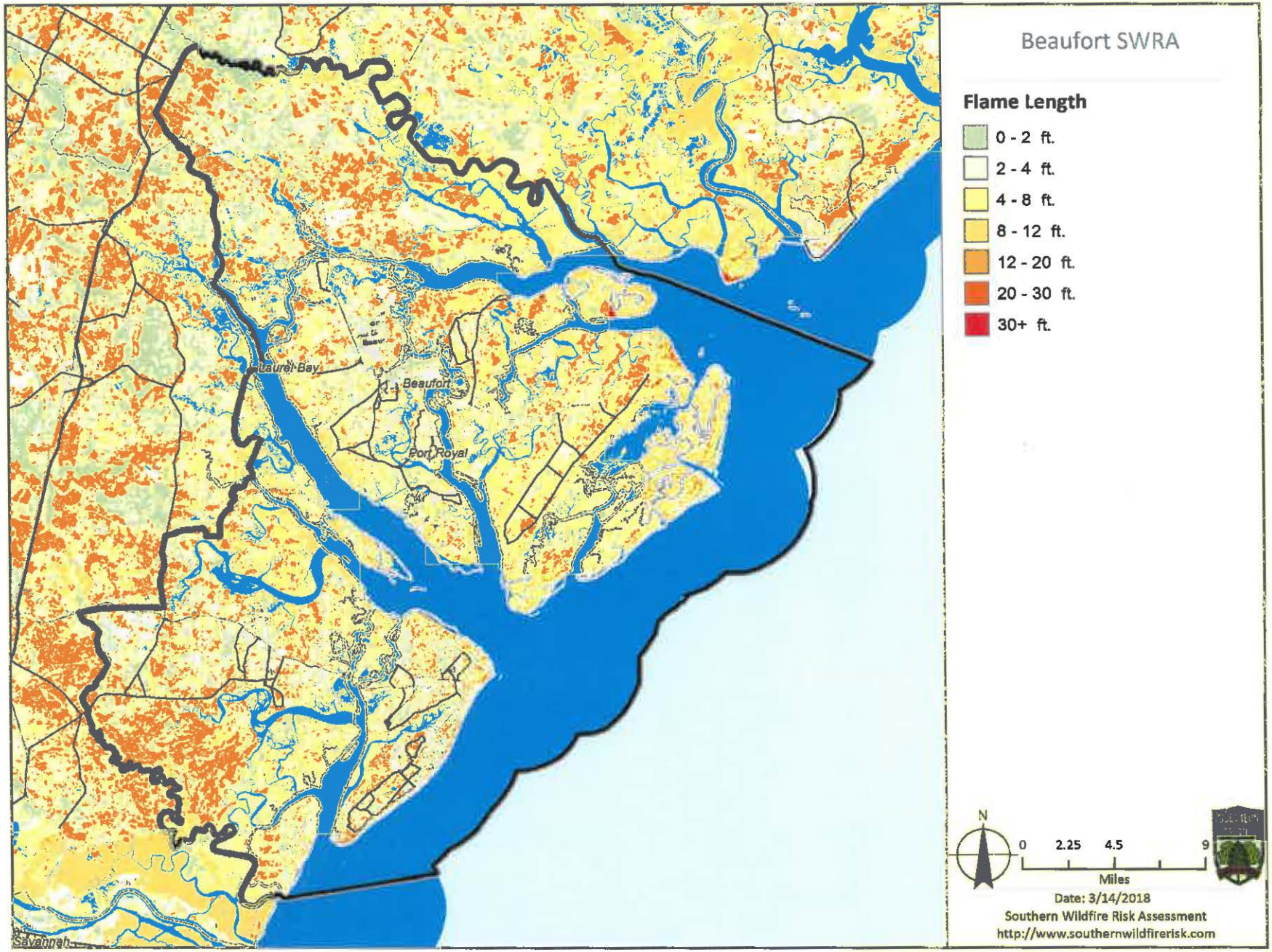
Characteristic Flame Length – Acres

Flame Length	Acres	Percent
Non-Burnable	256,616	43.5%
0 - 2 ft	33,805	5.7%
2 - 4 ft	64,084	10.9%
4 - 8 ft	124,136	21.1%
8 - 12 ft	58,149	9.9%
12 - 20 ft	31,398	5.3%
20 - 30 ft	14,015	2.4%
30 + ft	7,123	1.2%
Total	**589,326**	**100.0%**

Beaufort SWRA

Characteristic Flame Length - Acres




Beaufort SWRA
Flame Length
0 - 2 ft.
2 - 4 ft.
4 - 8 ft.
8 - 12 ft.
12 - 20 ft.
20 - 30 ft.
30+ ft.
Laurel Bay
Beaufort
Port Royal
Savannah
N
0
2.25
4.5
9
Miles
Date: 3/14/2018
Southern Wildfire Risk Assessment
http://www.southernwildfirerisk.com

Characteristic Fire Intensity Scale

Description

Characteristic Fire Intensity Scale (FIS) specifically identifies areas where significant fuel hazards and associated dangerous fire behavior potential exist based on a weighted average of four percentile weather categories. Similar to the Richter scale for earthquakes, FIS provides a standard scale to measure potential wildfire intensity. FIS consist of 5 classes where the order of magnitude between classes is ten-fold. The minimum class, Class 1, represents very low wildfire intensities and the maximum class, Class 5, represents very high wildfire intensities. Refer to descriptions below.

1. **Class 1, Very Low:**
   Very small, discontinuous flames, usually less than 1 foot in length; very low rate of spread; no spotting. Fires are typically easy to suppress by firefighters with basic training and non-specialized equipment.
2. **Class 2, Low:**
   Small flames, usually less than two feet long; small amount of very short range spotting possible. Fires are easy to suppress by trained firefighters with protective equipment and specialized tools.
3. **Class 3, Moderate:**
   Flames up to 8 feet in length; short-range spotting is possible. Trained firefighters will find these fires difficult to suppress without support from aircraft or engines, but dozer and plows are generally effective. Increasing potential for harm or damage to life and property.
4. **Class 4, High:**
   Large Flames, up to 30 feet in length; short-range spotting common; medium range spotting possible. Direct attack by trained firefighters, engines, and dozers is generally ineffective, indirect attack may be effective. Significant potential for harm or damage to life and property.
5. **Class 5, Very High:**
   Very large flames up to 150 feet in length; profuse short-range spotting, frequent long-range spotting; strong fire-induced winds. Indirect attack marginally effective at the head of the fire. Great potential for harm or damage to life and property.

For all Southern states, except Texas, this dataset was derived from updated fuels and canopy data as part of the 2010 SWRA Update Project recently completed in May 2014. For Texas, the 2010 Texas risk update data is portrayed.

To aid in viewing on the map, FIS is presented in 1/2 class increments. Please consult the SouthWRAP User Manual for a more detailed description of the FIS class descriptions.

Since all areas in the South have fire intensity scale calculated consistently, it allows for comparison and ordination of areas across the entire region.

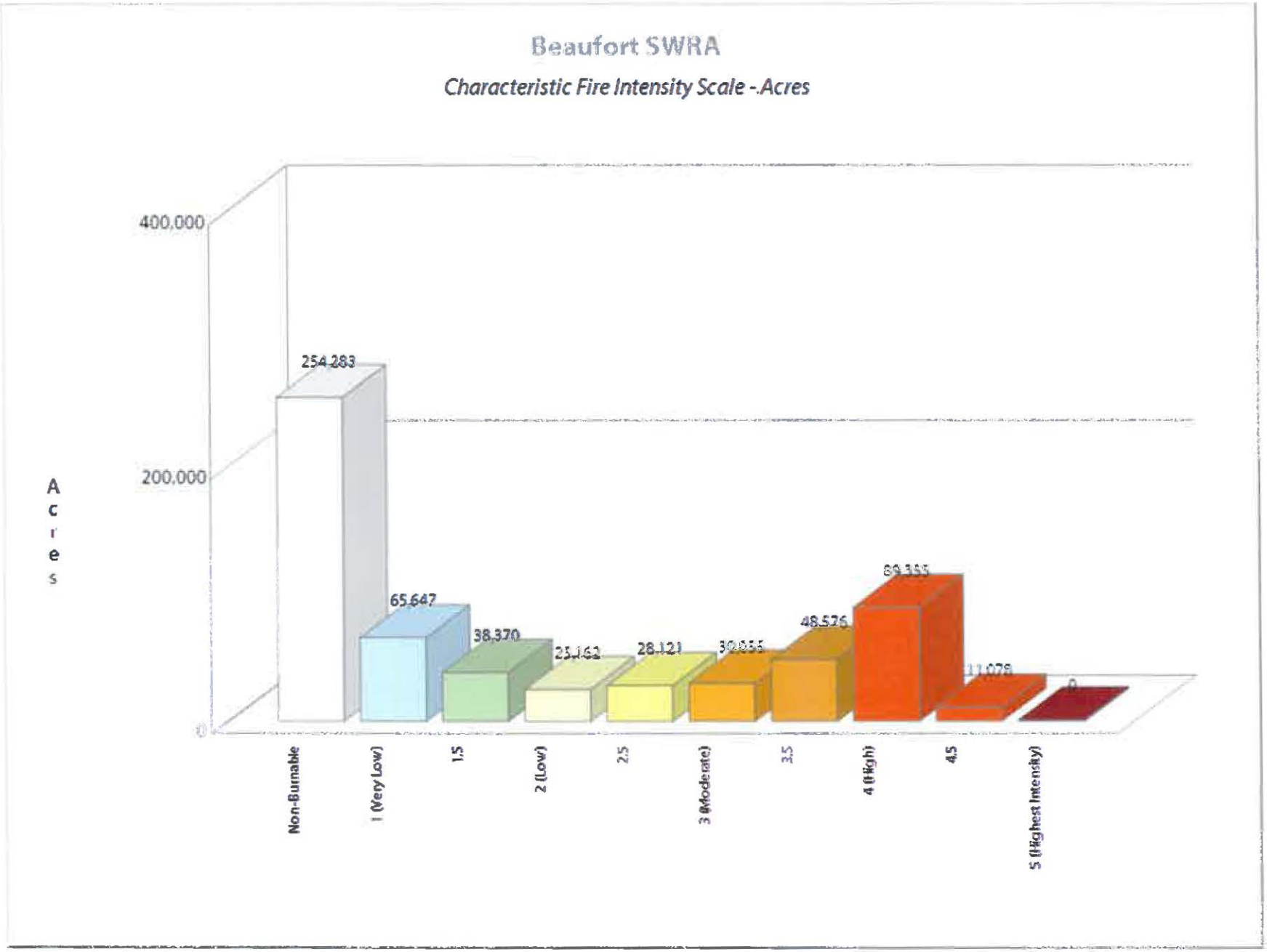
Fire intensity scale is a fire behavior output, which is influenced by three environmental factors - fuels, weather, and topography. Weather is by far the most dynamic variable as it changes frequently. To account for this variability, four percentile weather categories were created from historical weather observations to represent low, moderate, high, and extreme weather days for each weather influence zone in the South. A weather influence zone is an area where, for analysis purposes, the weather on any given day is considered uniform.

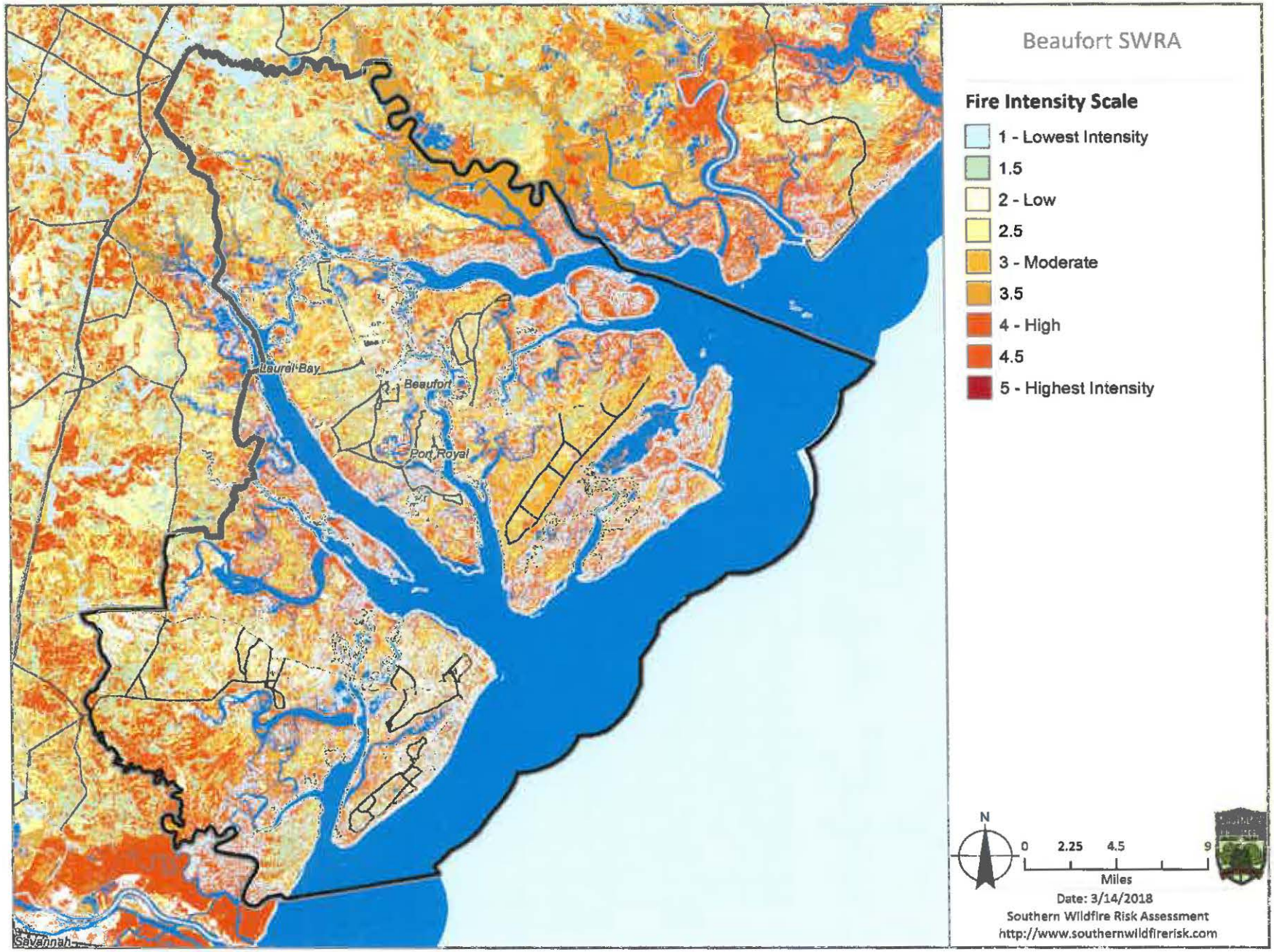
The fire intensity scale map is derived at a 30-meter resolution. This scale of data was chosen to be consistent with the accuracy of the primary surface fuels dataset used in the assessment. While not appropriate for site specific analysis, it is appropriate for regional, county or local planning efforts.

Class	Acres	Percent
Non-Burnable	254,283	43.1%
1 Lowest Intensity	65,647	11.1%
1.5	38,370	6.5%
2 Low	25,162	4.3%
2.5	28,121	4.8%
3 Moderate	30,055	5.1%
3.5	48,576	8.2%
4 High	89,355	15.1%
4.5	11,078	1.9%

	5 Highest Intensity	0	0.0%
	Total	**590,647**	**100.0%**

Characteristic Fire Intensity Scale - Acres


Beaufort SWRA
Characteristic Fire Intensity Scale -.Acres
400,000
200,000
0
Acres
254,283
65,647
38,370
25,162
28,121
30,855
48,576
69,355
11,078
0
Non-Burnable
1 (Very Low)
1.5
2 (Low)
2.5
3 (Moderate)
3.5
4 (High)
4.5
5 (Highest Intensity)


Beaufort SWRA
Fire Intensity Scale
1 - Lowest Intensity
1.5
2 - Low
2.5
3 - Moderate
3.5
4 - High
4.5
5 - Highest Intensity
Laurel Bay
Beaufort
Port Royal
Savannah
N
0
2.25
4.5
9
Miles
Date: 3/14/2018
Southern Wildfire Risk Assessment
http://www.southernwildfirerisk.com

Fire Type - Extreme

There are two primary fire types – surface fire and canopy fire. Canopy fire can be further subdivided into passive canopy fire and active canopy fire. A short description of each of these is provided below.

Surface Fire
A fire that spreads through surface fuel without consuming any overlying canopy fuel. Surface fuels include grass, timber litter, shrub/brush, slash and other dead or live vegetation within about 6 feet of the ground.

Passive Canopy Fire
A type of crown fire in which the crowns of individual trees or small groups of trees burn, but solid flaming in the canopy cannot be maintained except for short periods (Scott & Reinhardt, 2001).

Active Canopy Fire
A crown fire in which the entire fuel complex (canopy) is involved in flame, but the crowning phase remains dependent on heat released from surface fuel for continued spread (Scott & Reinhardt, 2001).





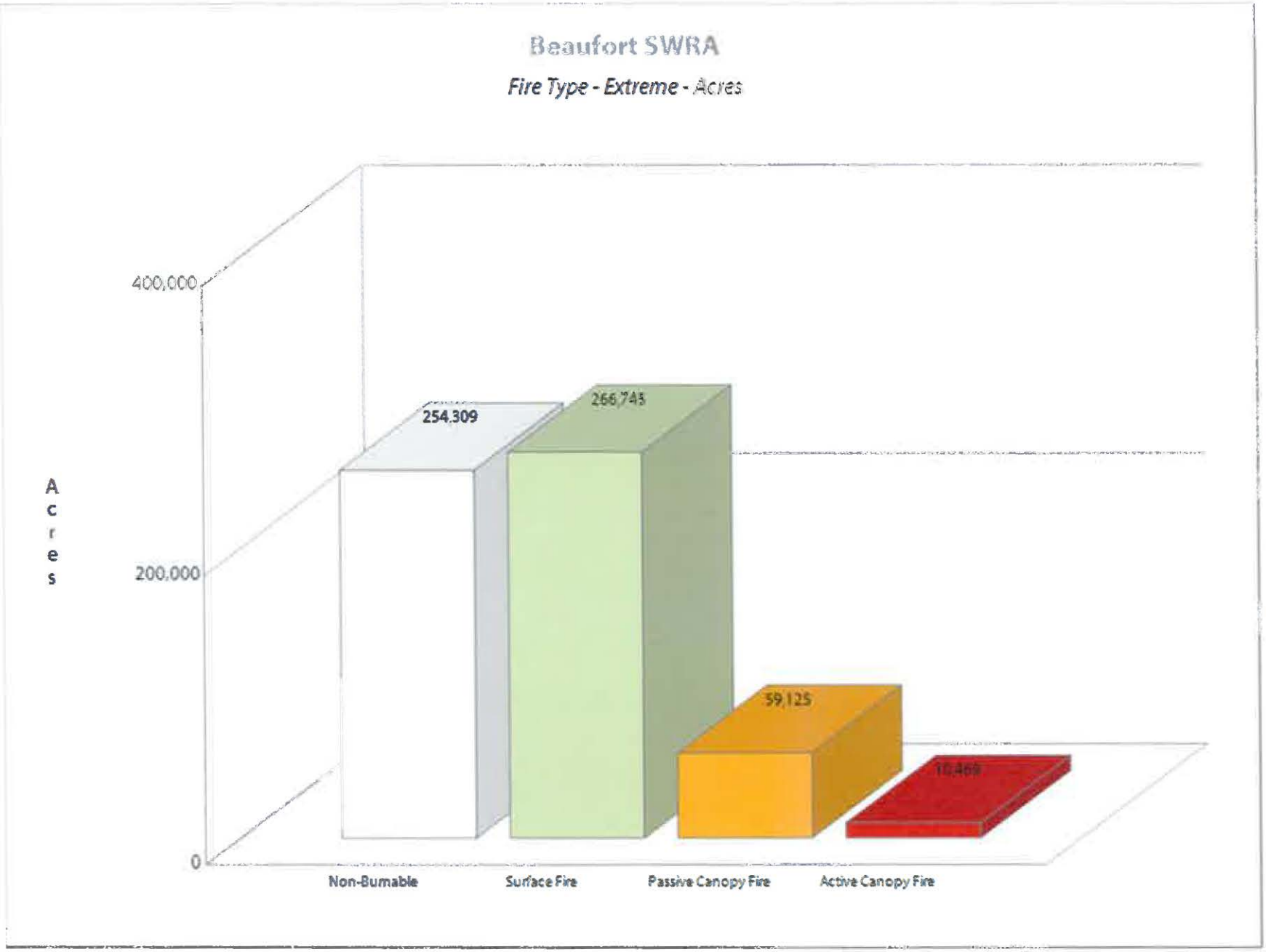

Fire Type – Extreme represents the potential fire type under the extreme percentile weather category. The extreme percentile weather category represents the average weather based on the top three percent fire weather days in the analysis period. It is not intended to represent a worst case scenario weather event. Accordingly, the potential fire type is based on fuel conditions, extreme percentile weather, and topography.

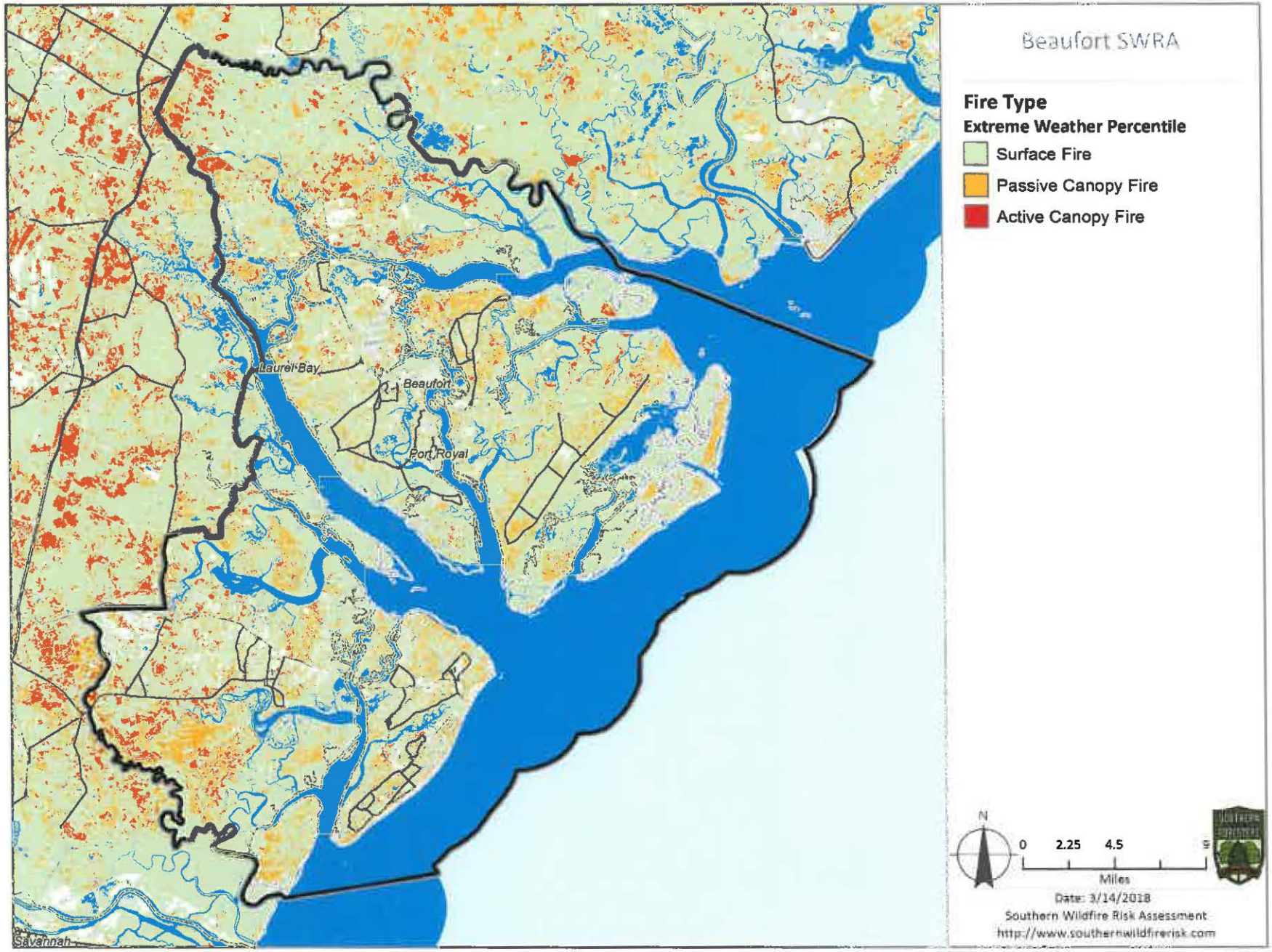
Canopy fires are very dangerous, destructive and difficult to control due to their increased fire intensity. From a planning perspective, it is important to identify where these conditions are likely to occur on the landscape so that special preparedness measure can be taken if necessary. The Fire Type – Extreme layer shows the footprint of where these areas are most likely to occur. However, it is important to note that canopy fires are not restricted to these areas. Under the right conditions, it can occur in other canopied areas.

For all Southern states, except Florida and Texas, this dataset was derived from updated fuels and canopy data as part of the 2010 SWRA Update Project recently completed in May 2014. For Texas, the 2010 Texas risk update data is portrayed. For Florida, the 2010 Florida risk assessment update data is shown.

The fire type - extreme map is derived at a 30-meter resolution. This scale of data was chosen to be consistent with the accuracy of the primary surface fuels dataset used in the assessment. While not appropriate for site specific analysis, it is appropriate for regional, county or local planning efforts.

Fire Type	Acres	Percent
Non-Burnable	254,309	43.1%
Surface Fire	266,745	45.2%
Passive Canopy	59,125	10.0%
Active Canopy	10,469	1.8%
Total	**590,647**	**100.0%**


Beaufort SWRA
Fire Type - Extreme - Acres
400,000
200,000
0
Acres
254,309
266,745
59,125
10,469
Non-Burnable
Surface Fire
Passive Canopy Fire
Active Canopy Fire


Beaufort SWRA
Fire Type
Extreme Weather Percentile
Surface Fire
Passive Canopy Fire
Active Canopy Fire
Laurel Bay
Beaufort
Port Royal
Savannah
N
0
2.25
4.5
Miles
Date: 3/14/2018
Southern Wildfire Risk Assessment
http://www.southernwildfirerisk.com

Surface Fuels

Description

Surface fuels, or fire behavior fuel models as they are technically referred to, contain the parameters needed by the Rothermel (1972) surface fire spread model to compute surface fire behavior characteristics, such as rate of spread, flame length, fireline intensity, and other fire behavior metrics. As the name might suggest, surface fuels only account for the surface fire potential. Canopy fire potential is computed through a separate but linked process. The Southern Wildfire Risk Assessment accounts for both surface and canopy fire potential in the fire behavior outputs.

Surface fuels are typically categorized into one of four primary fuel types based on the primary carrier of the surface fire: 1) grass, 2) shrub/brush, 3) timber litter and 4) slash. There are two standard fire behavior fuel model sets published for use. The Fire Behavior Prediction System 1982 Fuel Model Set (Anderson, 1982) contains 13 fuel models and the Fire Behavior Prediction System 2005 Fuel Model Set (Scott & Burgan, 2005) contains 40 fuel models.

The SWRA Surface Fuels have been updated to use the FBPS 2005 40 fuel model set from the LANDFIRE 2010 products, supplemented with additional enhancements obtained through calibration workshops with the Southern states. Florida uses FBPS 1982 fuel models derived based on spectral classification of Landsat Thematic Mapper (TM) satellite imagery derived as part of the Florida Forest Service fuels mapping and risk assessment projects. Texas fuels represent 2010 updates conducted as part of a statewide fuels and canopy mapping effort.

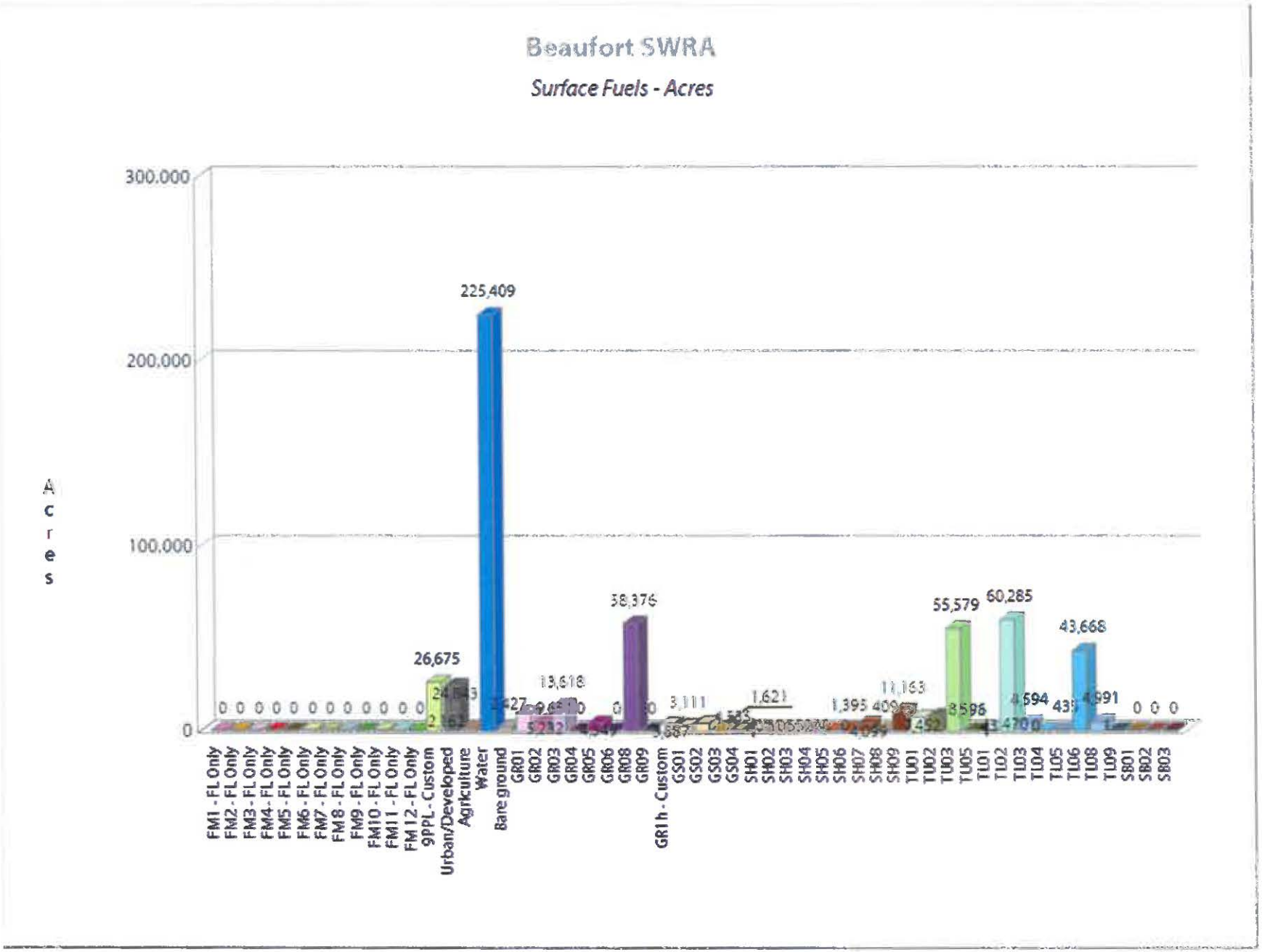
For the remaining 11 Southern states, the recently completed SWRA Update project produced a new surface fuels dataset based on 2010 LANDFIRE products. A detailed fuels calibration process was undertaken that involved collaboration with Southern state fuels and fire behavior specialists supported by federal partner involvement. Workshops were held to review the LANDFIRE fuels product and calibrate the data by modifying specific fuels classes to better reflect local knowledge and input. A key component of this calibration task involved using image processing techniques to better delineate conifer areas, and in particular pine areas (plantations and natural stands). The fuels layer represents 2010 conditions.

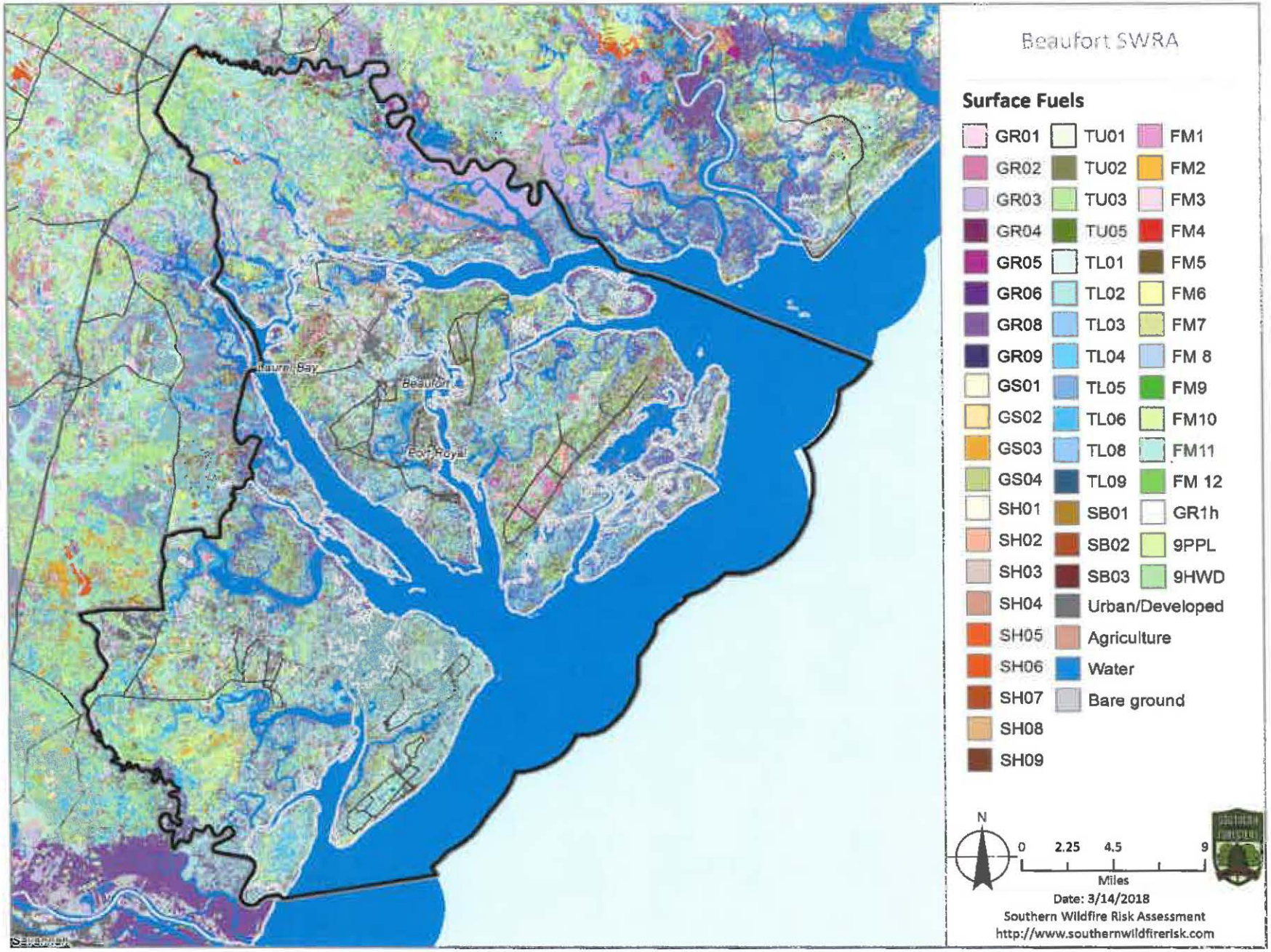
Surface Fuel	FBPS Fuel Model Set	Description	Acres	Percent
Grass Fuels Type Models (nearly pure grass and/or forb type)				
GR01	2005	Grass is short, patchy, and possibly heavily grazed. Spread rate moderate; flame length low.	9,651	1.6%
GR02	2005	Moderately coarse continuous grass, average depth about 1 foot. Spread rate high; flame length moderate.	5,232	0.9%
GR03	2005	Very coarse grass, average depth about 2 feet. Spread rate high; flame length moderate.	13,618	2.3%
GR04	2005	Moderately coarse continuous grass, average depth about 2 feet. Spread rate very high; flame length high.	0	0.0%
GR05	2005	Dense, coarse grass, average depth about 1 to 2 feet. Spread rate very high; flame length high.	4,549	0.8%
GR06	2005	Dryland grass about 1 to 2 feet tall. Spread rate very high; flame length very high.	0	0.0%
GR08	2005	Heavy, coarse, continuous grass 3 to 5 feet tall. Spread rate very high; flame length very high.	58,376	9.9%
GR09	2005	Very heavy, coarse, continuous grass 5 to 8 feet tall. Spread rate extreme; flame length extreme.	0	0.0%
Grass-Shrub Fuel Type Models (mixture of grass and shrub, up to 50 percent shrub coverage)				
GS01	2005	Shrubs are about 1 foot high, low grass load. Spread rate moderate; flame length low.	3,111	0.5%
GS02	2005	Shrubs are 1 to 3 feet high, moderate grass load. Spread rate high; flame length moderate.	4,535	0.8%
GS03	2005	Moderate grass/shrub load, average grass/shrub depth less than 2 feet. Spread rate high; flame length moderate.	1,621	0.3%
GS04	2005	Heavy grass/shrub load, depth greater than 2 feet. Spread rate high; flame length very high.	0	0.0%
Shrub Fuel Type Models (Shrubs cover at least 50 percent of the site, grass sparse to nonexistent)				
SH01	2005	Low shrub fuel load, fuelbed depth about 1 foot; some grass may be present. Spread rate very low; flame length very low.	10	0.0%
SH02	2005	Moderate fuel load (higher than SH01), depth about 1 foot, no grass fuel present. Spread rate low; flame length low.	55	0.0%
SH03	2005	Moderate shrub load, possibly with pine overstory or herbaceous fuel, fuel bed depth 2 to 3 feet. Spread rate low; flame length low.	24	0.0%
SH04	2005	Low to moderate shrub and litter load, possibly with pine overstory, fuel bed depth about 3 feet. Spread rate high; flame length moderate.	0	0.0%

Surface Fuel	FBPS Fuel Model Set	Description	Acres	Percent
SH05	2005	Heavy shrub load, depth 4 to 6 feet. Spread rate very high; flame length very high.	0	0.0%
SH06	2005	Dense shrubs, little or no herb fuel, depth about 2 feet. Spread rate high; flame length high.	1,395	0.2%
SH07	2005	Very heavy shrub load, depth 4 to 6 feet. Spread rate lower than SH05, but flame length similar. Spread rate high; flame length very high.	4,099	0.7%
SH08	2005	Dense shrubs, little or no herb fuel, depth about 3 feet. Spread rates high; flame length high.	409	0.1%
SH09	2005	Dense, finely branched shrubs with significant fine dead fuel, about 4 to 6 feet tall; some herbaceous fuel may be present. Spread rate high, flame length very high.	11,163	1.9%
Timber-Understory Fuel Type Models (Grass or shrubs mixed with litter from forest canopy)				
TU01	2005	Fuelbed is low load of grass and/or shrub with litter. Spread rate low; flame length low.	7,452	1.3%
TU02	2005	Fuelbed is moderate litter load with shrub component. Spread rate moderate; flame length low.	8,596	1.5%
TU03	2005	Fuelbed is moderate litter load with grass and shrub components. Spread rate high; flame length moderate.	55,579	9.4%
TU05	2005	Fuelbed is high load conifer litter with shrub understory. Spread rate moderate; flame length moderate.	3	0.0%
Timber Litter Fuel Type Models (dead and down woody fuel litter beneath a forest canopy)				
TL01	2005	Light to moderate load, fuels 1 to 2 inches deep. Spread rate very low; flame length very low.	470	0.1%
TL02	2005	Low load, compact. Spread rate very low; flame length very low.	60,285	10.2%
TL03	2005	Moderate load conifer litter. Spread rate very low; flame length low.	4,594	0.8%
TL04	2005	Moderate load, includes small diameter downed logs. Spread rate low; flame length low.	0	0.0%
TL05	2005	High load conifer litter; light slash or mortality fuel. Spread rate low; flame length low.	435	0.1%
TL06	2005	Moderate load, less compact. Spread rate moderate; flame length low.	43,668	7.4%
TL08	2005	Moderate load and compactness may include small amount of herbaceous load. Spread rate moderate; flame length low.	4,991	0.8%

Surface Fuel	FBPS Fuel Model Set	Description	Acres	Percent
TL09	2005	Very high load broadleaf litter; heavy needle-drape in otherwise sparse shrub layer. Spread rate moderate; flame length moderate.	1	0.0%
Slash-Blowdown Fuel Type Models (activity fuel/slash or debris from wind damage)				
SB01	2005	Low load activity fuel. Spread rate moderate; flame length low.	0	0.0%
SB02	2005	Moderate load activity or low load blowdown. Spread rate moderate; flame length moderate.	0	0.0%
SB03	2005	High load activity fuel or moderate load blowdown. Spread rate high; flame length high.	0	0.0%
Custom Fuel Type Models (all states except Florida)				
9PPL	Custom	Long-needle (pine litter, plantations) with a high load	26,675	4.5%
GR01h	Custom	Pasture and hayland	3,887	0.7%
Non-burnable Fuel Type Models (insufficient wildland fuel to carry a wildland fire under any condition)				
NB01	2005	Urban or suburban development; insufficient wildland fuel to carry wildland fire. Includes roads.	24,843	4.2%
NB03	2005	Agricultural field, maintained in nonburnable condition.	2,162	0.4%
NB08	2005	Open water	225,409	38.2%
NB09	2005	Bare ground	2,427	0.4%
1982 Fire Behavior Prediction System – ONLY USED FOR FLORIDA ASSESSMENT				
FM 1	1982	Short grass	0	0.0%
FM 2	1982	Timber grass and understory	0	0.0%
FM 3	1982	Tall grass	0	0.0%
FM 4	1982	Chaparral	0	0.0%

Surface Fuel	FBPS Fuel Model Set	Description	Acres	Percent
FM 5	1982	Brush	0	0.0%
FM 6	1982	Dormant brush	0	0.0%
FM 7	1982	Southern rough	0	0.0%
FM 8	1982	Compact timber litter	0	0.0%
FM 9	1982	Hardwood litter	0	0.0%
FM 10	1982	Timber (understory)	0	0.0%
FM 11	1982	Light logging slash	0	0.0%
FM 12	1982	Medium logging slash	0	0.0%
			589,326	**100.0%**


Beaufort SWRA
Surface Fuels - Acres
Acres
300,000
200,000
100,000
0
225,409
38,376
26,675
13,618
55,579
60,285
43,668
11,163
3,111
1,621
1,395
FM1 - FL Only
FM2 - FL Only
FM3 - FL Only
FM4 - FL Only
FM5 - FL Only
FM6 - FL Only
FM7 - FL Only
FM8 - FL Only
FM9 - FL Only
FM10 - FL Only
FM11 - FL Only
FM12 - FL Only
9PPL - Custom
Urban/Developed
Agriculture
Water
Bare ground
GR01
GR02
GR03
GR04
GR05
GR06
GR08
GR09
GR1h - Custom
GS01
GS02
GS03
GS04
SH01
SH02
SH03
SH04
SH05
SH06
SH07
SH08
SH09
TU01
TU02
TU03
TU05
TL01
TL02
TL03
TL04
TL05
TL06
TL08
TL09
SB01
SB02
SB03


Beaufort SWRA
Surface Fuels
GR01
GR02
GR03
GR04
GR05
GR06
GR08
GR09
GS01
GS02
GS03
GS04
SH01
SH02
SH03
SH04
SH05
SH06
SH07
SH08
SH09
TU01
TU02
TU03
TU05
TL01
TL02
TL03
TL04
TL05
TL06
TL08
TL09
SB01
SB02
SB03
Urban/Developed
Agriculture
Water
Bare ground
FM1
FM2
FM3
FM4
FM5
FM6
FM7
FM 8
FM9
FM10
FM11
FM 12
GR1h
9PPL
9HWD
Beaufort
Port Royal
N
0
2.25
4.5
9
Miles
Date: 3/14/2018
Southern Wildfire Risk Assessment
http://www.southernwildfirerisk.com

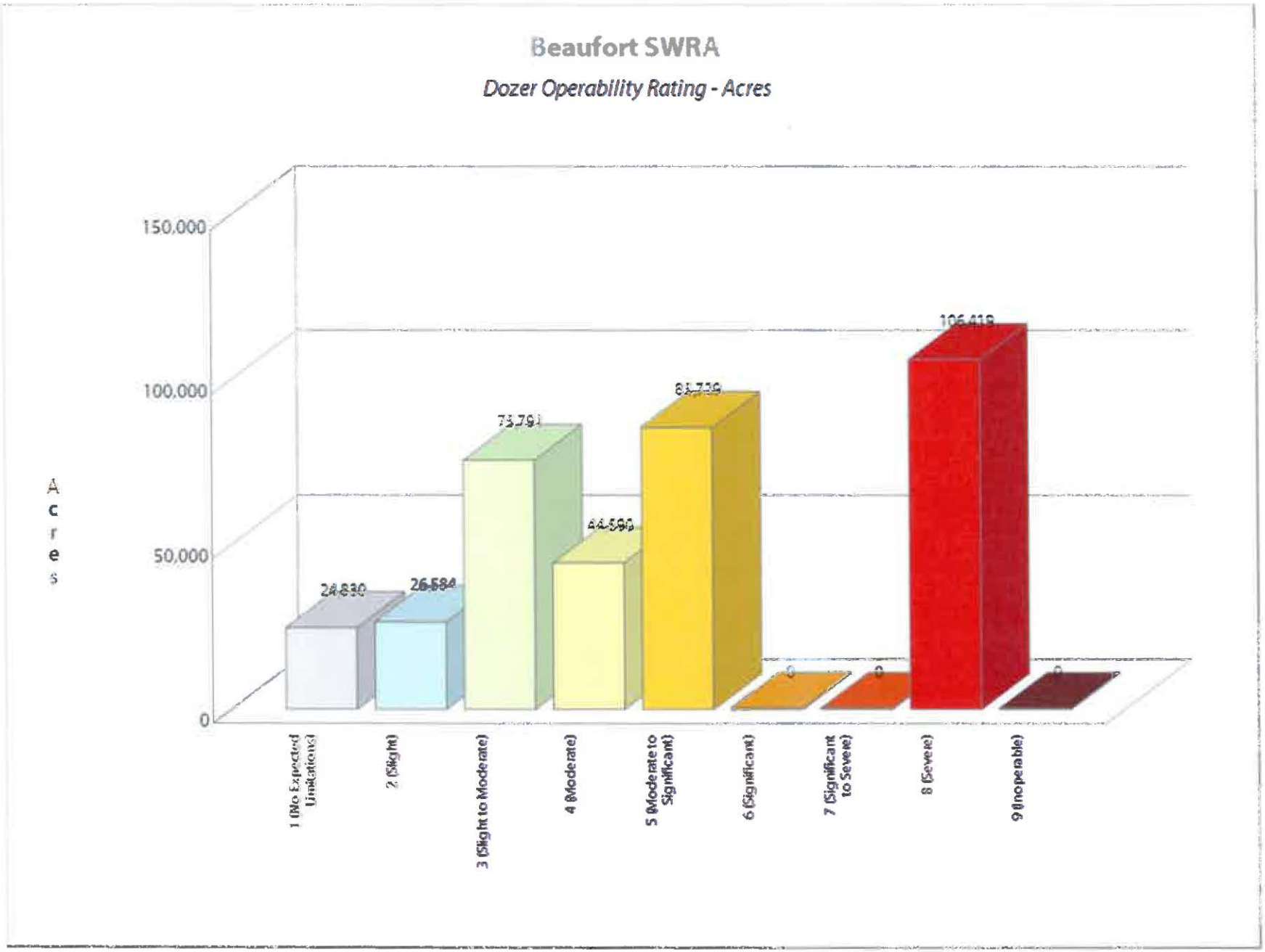
Dozer Operability Rating

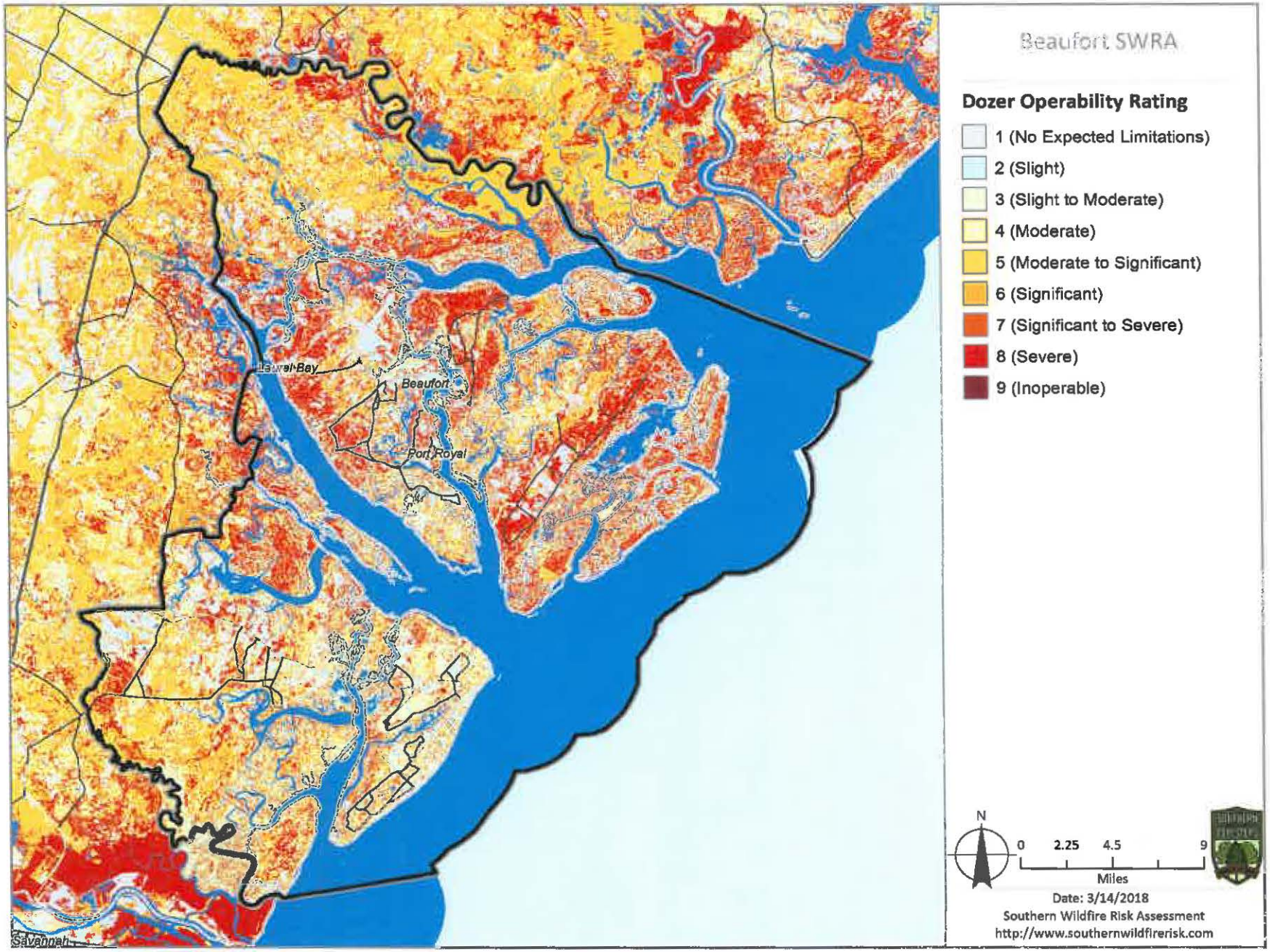
Description

The Dozer Operability Rating (DOR) expresses how difficult it is to operate a dozer in an area based on limitations associated with slope and vegetation/fuel type. Using the fireline production rates published in the NWCG Fireline Handbook 3 (PMS 410-1) as a guide, operability values were assigned to a matrix based on 6 slope classes and 10 vegetation/fuels classes. The possible values range from 1 to 9, with 1 representing no limitations and 9 being inoperable.

Dozer Operability Rating - Acres

Class	Acres	Percent
1 (No Expected Limitations)	24,830	6.8%
2 (Slight)	26,584	7.3%
3 (Slight to Moderate)	75,791	20.8%
4 (Moderate)	44,590	12.3%
5 (Moderate to Significant)	85,729	23.6%
6 (Significant)	0	0.0%
7 (Significant to Severe)	0	0.0%
8 (Severe)	106,419	29.2%
9 (Inoperable)	0	0.0%
Total	363,942	100.0%


Beaufort SWRA
Dozer Operability Rating - Acres
Acres
150,000
100,000
50,000
0
24,830
26,584
73,791
44,590
83,739
0
0
106,418
0
1 (No Expected Limitations)
2 (Slight)
3 (Slight to Moderate)
4 (Moderate)
5 (Moderate to Significant)
6 (Significant)
7 (Significant to Severe)
8 (Severe)
9 (Inoperable)


Beaufort SWRA
Dozer Operability Rating
1 (No Expected Limitations)
2 (Slight)
3 (Slight to Moderate)
4 (Moderate)
5 (Moderate to Significant)
6 (Significant)
7 (Significant to Severe)
8 (Severe)
9 (Inoperable)
Beaufort
Port Royal
Savannah
N
0
2.25
4.5
9
Miles
Date: 3/14/2018
Southern Wildfire Risk Assessment
http://www.southernwildfirerisk.com

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More information about the Oak Ridge National Laboratory LandScan data is available from
http://web.ornl.gov/sci/landscan/landscan_documentation.shtml

More information about the U.S. Forest Service SILVIS data is available from http://silvis.forest.wisc.edu/maps/wui_main

SOUTHERN GROUP OF STATE FORESTERS
WILDFIRE RISK ASSESSMENT PORTAL

Topic:	Historic Mitchelville Freedom Park
Date Submitted:	March 19, 2018
Submitted By:	Ahmad Ward
Venue:	Natural Resources Committee

Proposal to Beaufort County
For the Master Planning and Phase 1 Development of
Historic Mitchelville Freedom Park

Summary:

The Mitchelville Preservation Project (MPP) is seeking a total of $ 1,400,000 to develop a comprehensive master plan and implement the first stages of construction at Historic Mitchelville Freedom Park. The Master Plan will include an interpretive plan, development plan, archaeological mitigation plan, business and financial plans, along with other components. Approximately $250,000 is reserved for the master planning component of the project. The remaining $1,150,000 is for implementing Phase 1 improvements.

Preliminary Budget Proposed:

The MPP request to the County of Beaufort for master planning involves the components detailed below. Mitchelville and the Coastal Discovery Museum (CDM) are willing to manage the process to the extent determined feasible by Beaufort County and the Town of Hilton Head Island. The first request is for the master planning phase of $250,000 which will determine the scope of subsequent Phase 1 construction. The goal is to enhance and improve Historic Mitchelville Freedom Park so that it supports the MPP mission, maintains the open use of the park by the public under the management of MPP, and is economically viable. Some components such as the land surveying, environmental and archaeology services may be procured separately from the overall master planning phase.

The remainder of the total funding request will be for Phase 1 design, permitting and construction, which is anticipated to include: Clearing and developing appropriate spaces to interpret the experience of Mitchelville; recreating the Church School on/near its historical placement to serve as an educational building used by school children and other groups for programming and as a potential exhibition space; the reconstruction of some of the homes that will serve as interpretive centers illustrating themes related to various aspects of Mitchelville life; partial restoration of the historic Mitchelville street grid; placing high-quality interpretive signage on the property to aid in self-guided tours and creating a virtual tour of the property.

Master Planning Phase:

The Master Planning phase will include the following components, which generally follow the guidelines produced by the Georgia DNR Historic Preservation Division, and widely recognized as standard components in a Historic Site Master Plan.

1. Vision Statement: this will be a short and concise statement of the purpose and goals of the organization regarding the preservation and use of the historic site (which is not necessarily the overall mission of the organization). An important part of the vision statement will be to recognize and incorporate within it aspects of why the property is historically important—its historic context—and avoid objectives that conflict with preservation principles.

Topic: Historic Mitchelville Freedom Park
Date Submitted: March 19, 2018
Submitted By: Ahmad Ward
Venue: Natural Resources Committee

2. Historical Overview: this will be a highly detailed history of the site, its historical development, its historic features, archaeological resources, and will be a chronicle of important people or events associated with the property. Copious amounts of information about the history of the site are available, and a summary history will be included, with reference to a separate historic overview document. An existing historic overview was completed as a Historic Property Information Form (HPIF) as part of nominating the property for listing in the National Register of Historic Places.

3. Organization Overview and Goals & Objectives for Use of the Historic Site: this section will include a detailed history of the administering organization and will explain thoroughly how goals and objectives for the use, care, and management of the historic site are determined and how decisions were made. These goals and objectives will be the result of a vetting process that collected and considered such relevant information as: preliminary ideas regarding potential site usage, identification of historic resources on the site and their preservation needs, the historic context of the site, including association with important events or people, identification of issues beyond the immediate control of the organization and options for addressing these issues, costs of implementing a goal or objective, and priorities. Again, while this section of the Historic Site Master Plan is toward the beginning of the document, its final form may be dependent on information that follows.

4. Interpretation Plan: this section will be the primary guidance tool for determining and managing how the historic aspects of the site will be presented to the public. The interpretation plan will include: information about how historic collections are displayed and curated; how physical and visual historic resources are explained; the themes that will guide the messages conveyed in the Park; the method and materials used for training docents / guides that will aid in interpretation; In addition, there will be information about display designs, signage, markers, plaques, and monuments, etc.

5. Development Plan: this section will be the primary guidance tool for implementing the goals and objectives for the physical development of the historic site. Initially, the development plan will provide a general and broad perspective of what will be occurring to the property over time. As related individual projects are planned and implemented, they will be incorporated or referenced in the development plan section of the master plan. The development plan will include a site plan identifying historic resources, an overall layout of the proposed improvements and planned new construction, and other site alterations.

6. Preservation Plan: this section will be the primary tool for determining the appropriate treatment of the historic resources on the property. The preservation plan will characterize and evaluate historic resources and objects, provide the necessary information to responsibly deal with existing issues and concerns about the resources /objects and plan for their future, guide implementation of recommendations resulting from the plan, and act as a reference source. Incorporated within the preservation plan will be acknowledgement of the Secretary of the Interior's Standards for the Treatment of Historic Properties, and a Maintenance Plan. Associated documents include inventories of historic collections, photo documentation of the site, Conditions Assessment Reports, Archival status report of objects/artwork in the collection, other applicable reports, and archaeological studies. These may be included within the preservation plan or developed separately and incorporated. For related information see: Preservation Plan Guidelines for Historic Properties.

7. Operations Plan: this section will be the primary guidance tool for managing the various types of uses that are planned for the historic site. Within the use plan will be information on hours of operation, staffing needs, a general maintenance plan, and other day-to-day operational

requirements. It should also outline work plans and task lists for operating the site, assign management responsibilities, and set schedules.

8. Disaster Plan: this section will be the primary guidance tool for reacting to an emergency situation involving the historic site, such as fire or natural disaster. Within the disaster plan will be information about emergency response measures, including notification responsibilities, emergency decision-making policies, recovery activity team assignments, and safety procedures. Notification responsibilities, team leader assignments, and other duties should include back-ups and be designated by position within the organization rather than to an individual to ensure continuity as terms and personal involvement fluctuate.

9. Business Plan: this section will establish how the administering organization professionally manages the site. Within the business plan will be information about the management team, staff and board of directors and their duties and responsibilities in operating the site, including marketing, developing and managing the budget, hiring practices, purchasing procedures, personnel policies and contracting for services.

10. Financial Plan: this section will establish how funding the historic site's operational and developmental needs will be achieved. Within the financial plan will be information about budgets, income, expenses, taxes, accounting and auditing practices, user fees, fund-raising activities, projects costs, etc. The financial plan should be updated on an annual basis.

11. Other Information: this will include, as applicable, appendices and reference documents. Appendices should include the Secretary of the Interior's Standards for the Treatment of Historic Properties, copies of Preservation Briefs and other helpful technical information, maintenance plans, project estimates, inventories, and other reference materials, which may be mentioned in other sections of the master plan. Other information could also include items that don't sensibly belong in the major sections of the plan. These might include membership lists, contact lists, organization officers and board of directors' lists, and such things as information on strategic partnership development.

12. Master Plan Report and Executive Summary: this will summarize the property's history and importance, why the Historic Site Master plan is being created, goals for the use of the property, information about the administering organization, and other important information as applicable. While the executive summary is at the beginning of the master plan document, it will be one of the last things written so that all aspects of the plan contents can be considered before deciding what should be included. The Executive Summary will be engaging, informative, easy to read by the general public, and relatively short—no more than two pages. Excerpts from the Executive Summary and the Vision Statement might also provide text for public relations or educational tools as pamphlets or flyers about the property.

Consultant Fee Estimates for Master Planning

Task Description	Estimated Fee By Task
Project Initiation, Community Outreach and Case Study Tours	$40,000
Historical Research, Surveys, Archaeology and Site Inventory/Analysis	$40,000
Conceptual Master Plan Development	$110,000
Final Master Plan Implementation	$60,000
All Services Total	**$250,000**

The Phase 1 Development Program:

This will be based on the Master Plan, but will likely include several components including the following:

1. As a public park, Mitchelville must pay careful attention to both the landscape and its history. The landscape, or the physical environment in general, would play an active, meaningful role in historical site interpretation for the public, and serve as an active tool for communicating important understandings about the past. Thus, the Development Plan will be the product of combining the work of a landscape architect with that of a historian and interpretive consultant.

2. The conceptual design will include various structures that will highlight selected themes, serve as education and exhibition portals and an interpretive scope (acreage to be determined) of the park that presents an interpretation of Mitchelville in its historic context, as the first self-governed town operated by African Americans in the South. It is important to note that this proposed landscape is not intended to replicate the landscape that existed on this site. Instead, it is a newly created landscape intentionally designed to support the interpretive / thematic strategies and goals of the complex.

Proposed components include:

- Points of entry, arrival and visitor drop off
- Site layout, vehicular circulation, parking (cars and buses)
- Pathways and interpretive trails and circulation
- Church School education /exhibit center, historic renderings of homes, and other structures including artifact storage
- Interpretive panels for self-guided daytime walks on the interpretive grounds

Phase 1 Planning Elements:

Phase one physical improvements will be determined, modified, and/or detailed out during the master planning process, but current thought includes some of the options outlined below. Ideally we would like to obtain approval for funding for both the Master Planning Phase and Phase 1 improvements at the outset. Phase 1 funds will include archaeology, land surveying, environmental, design, construction and permitting that are estimated to be in the range of $1,150,000. Our request

is to have these funds approved and set aside during the master planning phase, and then released as needed and generally following completion of the Master Plan.

1. Archaeology: Archaeological work on the property would include clearing underbrush for remote sensing surveys, establishing a permanent grid system at the property and determining the location of the Mitchelville era road system and the location of building foundations. These efforts include ground penetrating radar, magnetometry, and resistivity surveys, and conducting selected test excavations to determine the depth of buried features and to ground-truth the results of the remote sensing survey. This is required to prevent archaeological resources from being damaged by construction. This process has started in small fashion due to surface sonar and Magnetometry on a selected area of the park that was conducted by the Masters in Public Archaeology from Binghamton University in July 2017. This plan would move forward inspired by the findings from this process.

2. Land Surveying and Environmental Services: Proposed land surveying and environmental services would include an updated tree and topography survey, identification and boundary certification of the OCRM critical line and wetlands on the property.

3. Roads, Parking and Pathway System: Phase 1 roads, parking, and a trail way that mirrors the Mitchelville era road system and creates an interpretive path that explores the property. Surface the main road and trail way system so that it is ADA accessible and enables full exploration of the site, including access to the Port Royal Sound. This project will likely mean a relocation of the current parking lot and access road.

4. Signage and Site Improvements: Interpretive systems to tell the story of Mitchelville through a series of interpretive elements, gathering areas, structures and signs on the property. The interpretive story will also be told through technology including a virtual tour of the property so that it can be seen by prospective visitors to Hilton Head Island from around the world.

5. Phase 1 buildings, structure(s) and other site improvements on the property: The exact form and location of this building(s) and site improvements will be determined in the master planning process in the detailed design and permitting phases.

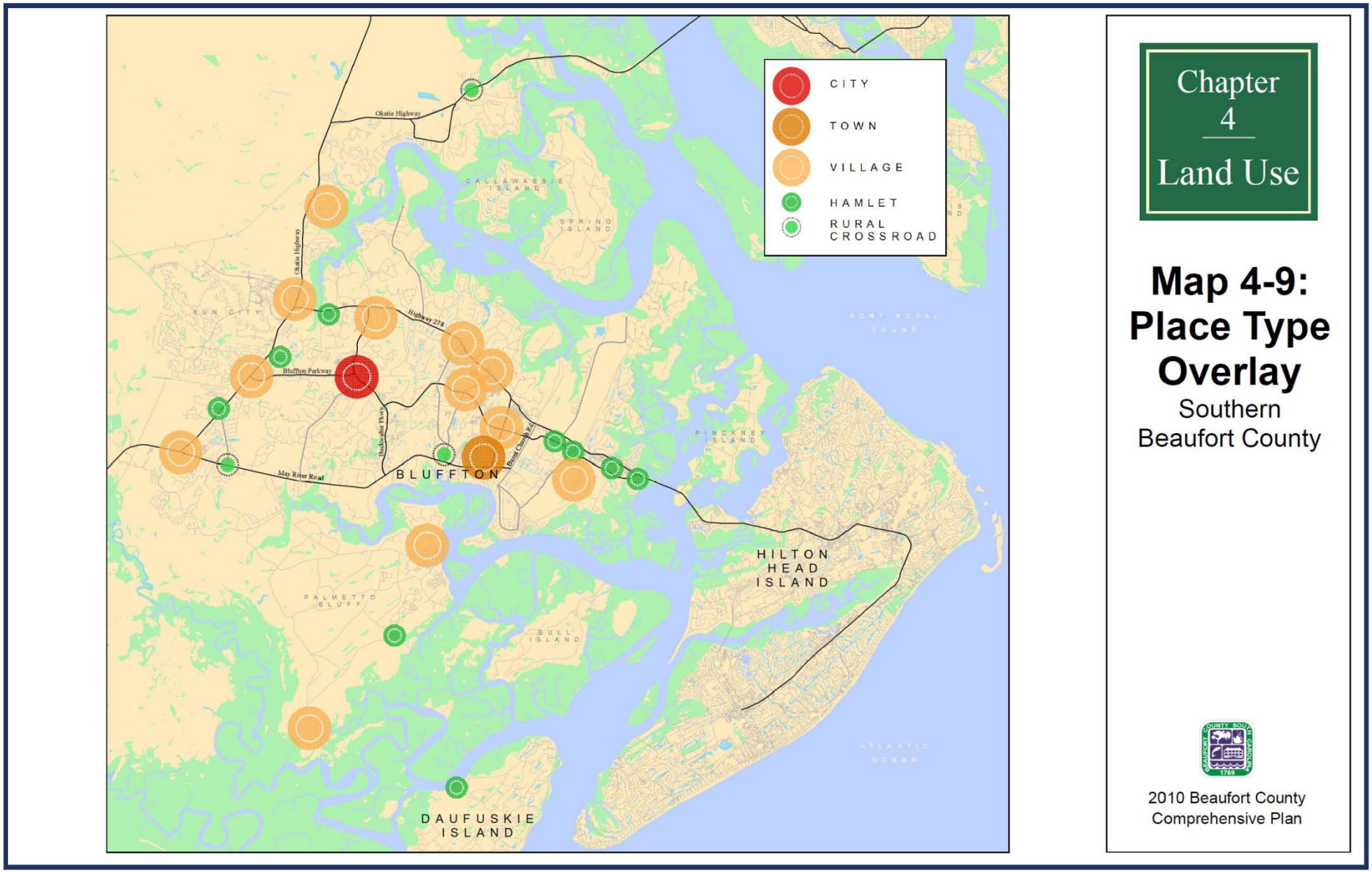
Phase 1 estimates – These may shift according to Master Plan recommendations

Phase 1 components	**Estimated Costs**
Archaeology	$150,000
Land Surveying and Environmental Services	$50,000
Roads, Parking and Pathway System	$350,000
Signage and Site Improvements	$150,000
Phase 1 Buildings, Structures/ Site improvements	$450,000
Component Total	**$1,150,000**

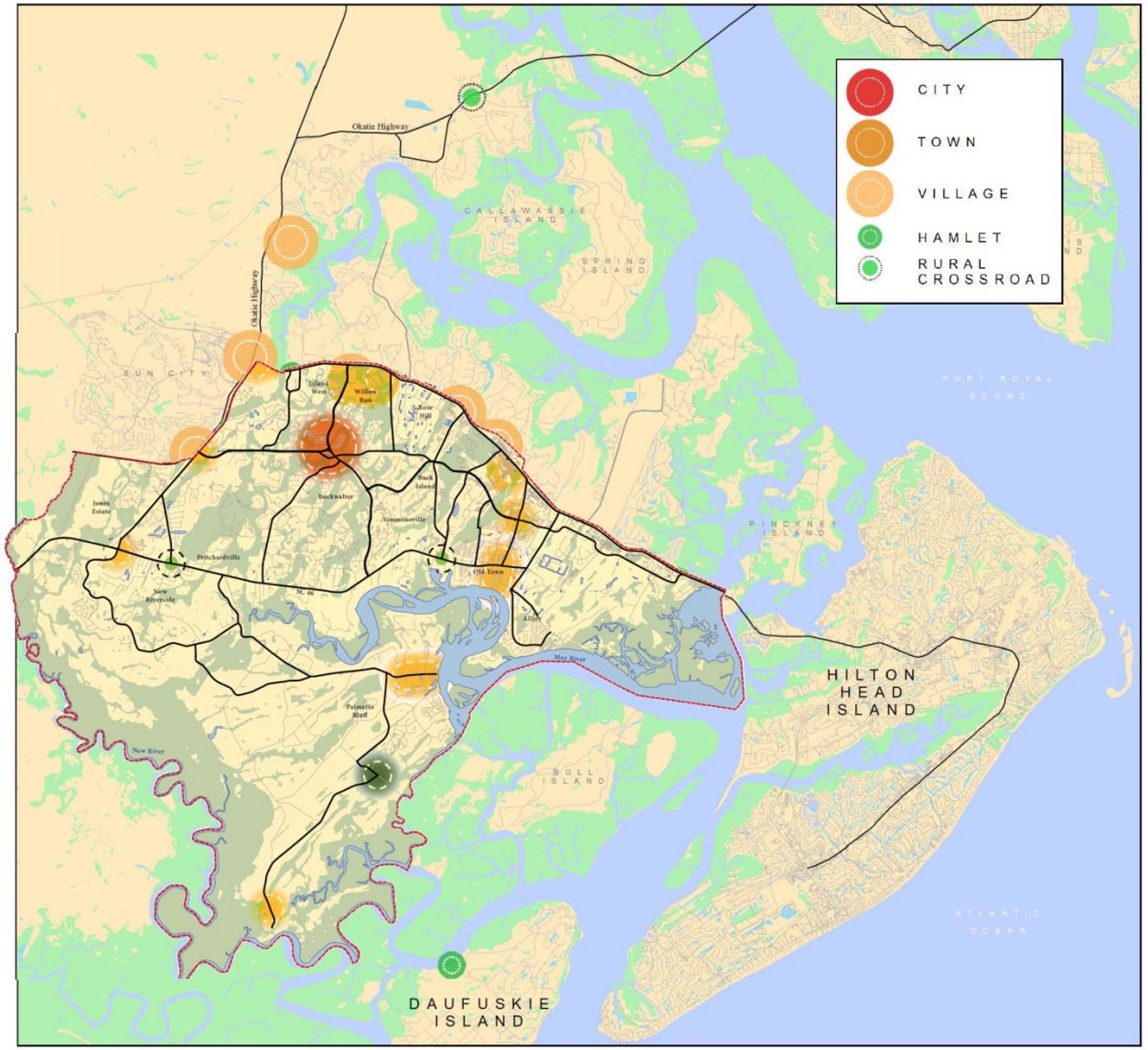
Topic:	Waterfront Park Extension into Whitehall
Date Submitted:	March 19, 2018
Submitted By:	Bill Prokop
Venue:	Natural Resources Committee

Topic: Waterfront Park Extension into Whitehall
Date Submitted: March 19, 2018
Submitted By: Bill Prokop
Venue: Natural Resources Committee

Topic:	Community Development Code Information
Date Submitted:	March 19, 2018
Submitted By:	Rob Merchant
Venue:	Natural Resources Committee



Topic: Community Development Code Information
Date Submitted: March 19, 2018
Submitted By: Rob Merchant
Venue: Natural Resources Committee



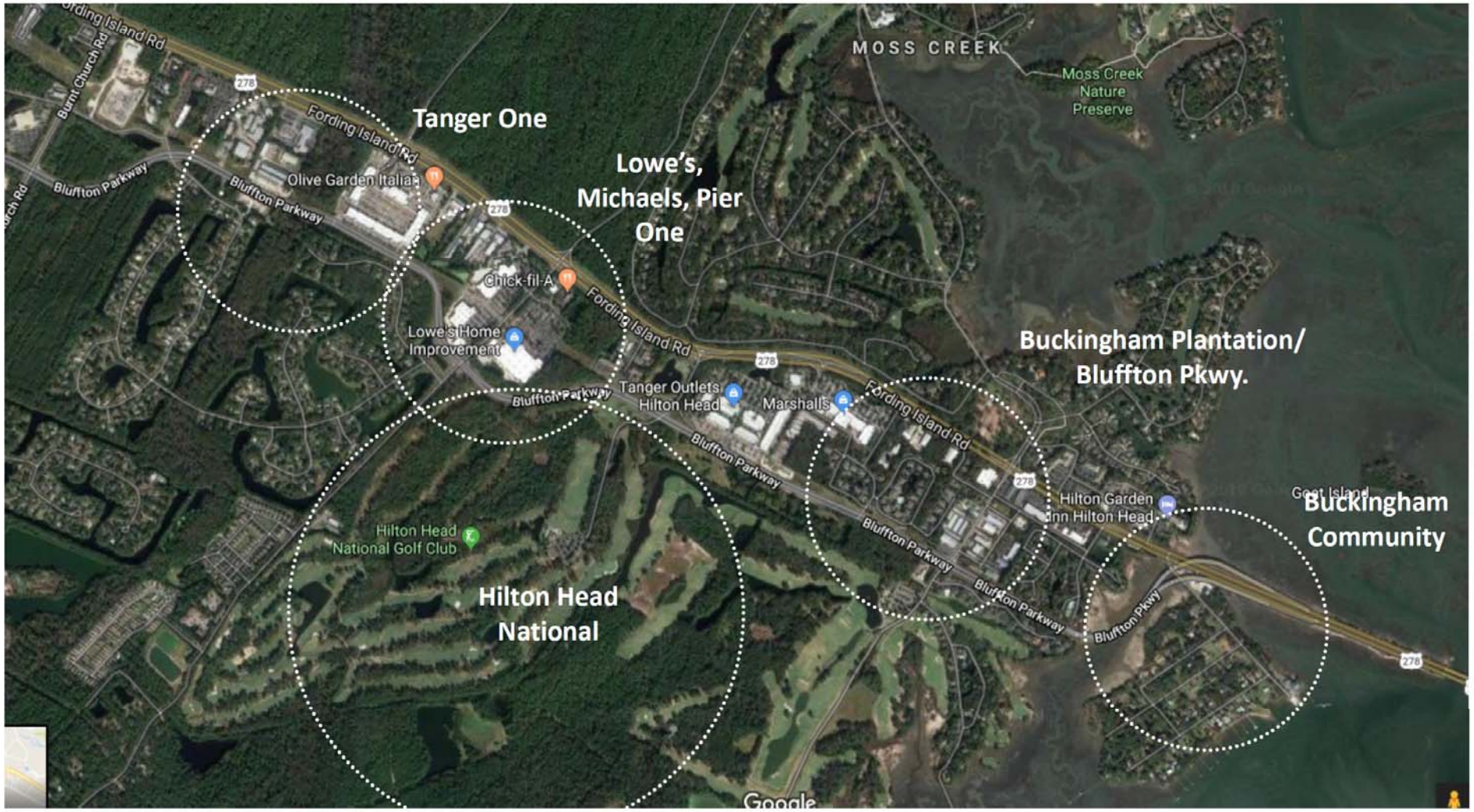
Chapter 4

Land Use

Map 4-9: Place Type Overlay

Southern Beaufort County

2010 Beaufort County Comprehensive Plan


Tanger One
Lowe's, Michaels, Pier One
Buckingham Plantation/ Bluffton Pkwy.
Buckingham Community
Hilton Head National
MOSS CREEK
Moss Creek Nature Preserve
Fording Island Rd
Bluffton Parkway
Burnt Church Rd
Olive Garden Italian
Chick-fil-A
Lowe's Home Improvement
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