Seminole County
Office of Emergency Management

Seminole County
Community Wildfire Protection Plan
2019-2024

Seminole County Office of Emergency Management
150 Eslinger Way
Sanford, Fl. 32773

Executive Summary

The Community Wildfire Protection Plan (CWPP) was developed through the cooperation of a public partnership including United States Forest Service, Florida Forest Service, Seminole County fire departments, Seminole County Natural Lands, and the Seminole County Office of Emergency Management. The CWPP assesses the wildland fire risk in Seminole County by reviewing historical wildland fires, types of foliage, burn rates and causes, and the damage caused to land and infrastructure. By reviewing the history, the team developed mitigation steps to prevent, protect, and increase Seminole County's resilience to these types of emergencies. The CWPP is a guideline, or roadmap, for mitigation and protective actions that will be taken by all of the agencies listed above with oversight from the Local Mitigation Strategy (LMS) Working Group.

The strategic action items include, but are not limited to, public education programs, fuel reduction activities (prescribed burns and mechanical treatment), public information and outreach, response tactics and equipment, and fire breaks and lines. The CWPP will give Seminole County additional credit when applying for wildland fire protection grants. By adopting this plan, Seminole County will become a safer place for citizens living inside the wildland urban interface.

The CWPP is a unique opportunity to address the challenges of fire protection in the wildland urban interface through locally-supported solutions. CWPPs are authorized by the Healthy Forests Restoration Act of 2003 and provide communities with a tremendous opportunity to influence fuel reduction projects and support wildland fuel management projects. Having a CWPP gives the jurisdiction priority status when applying for federal funding for wildland fire mitigation projects. In addition, the CWPP also provides initiatives for cost effective funding, such as public outreach and citizen preparedness. The CWPP will also make recommendations for the sustainment of resources for brushfire prevention.

Recommended actions to reduce wildland fire vulnerability have been collaboratively developed for the following mitigation categories:

1) wildland fuel management,
2) community outreach and education,
3) FireWise building retrofit and landscaping,
4) policy and regulation recommendations, and
5) wildland fire response improvements

The plan details implementation actions, funding considerations and responsible agencies. The Plan was developed in a collaborative process with input from local, state, and federal partners, and other relevant stakeholders. The document identifies and prioritizes areas for wildland fuel management, and includes actions that will inform residents of measures to reduce the ignitability of their homes and community. Input was gathered from municipal and community members. The CWPP also furthers the goals and mitigation strategies of the Local Mitigation Strategy (LMS) and is consistent with recommendations of the LMS Working Group.

Plan Approval

This Community Wildfire Protection Plan (CWPP) is a cooperative effort to improve wildland fire protection and response. The individuals listed below comprise the core decision-making team responsible for the development of this plan and mutually agree on the plan contents.

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Community Background and Existing Situation

Description of Community

Seminole County, Florida is located between Orlando to the south and Deland and Daytona Beach to the north. Seven cities lie within the borders of Seminole County: Altamonte Springs, Casselberry, Lake Mary, Longwood, Oviedo, Sanford, and Winter Springs. Each city has its own legislative body and its own fire department, with the exception of Altamonte Springs, Casselberry and Winter Springs who are served by the Seminole County Fire Department. The County Seat lies within the City of Sanford and is overseen by 5 county commissioners who represent 5 districts of Seminole County.

Seminole County can be described as a wildland-urban interface community, which has both multi-story commercial buildings and rural farm land. A majority of Seminole County's wildland fire threat lies on the eastern side of the county, specifically the unincorporated townships of Geneva and Chuluota and on the Northwestern part of the county along the Wekiwa State Park, Rock Springs State Reserve, and Seminole State Forest. However, the threat of wildland fire can loom over practically any community that is integrated into the rural setting.

It is well known that wildland fire can have a devastating effect on the inhabitants and their homes; however, wildland fire can devastate the local economy as well. An abundance of agricultural industries exists within Seminole County such as horticulture, citrus, and livestock. Together, these industries generate approximately $465 million annually.

The Florida Forest Service, Seminole County fire departments, Seminole County Natural Lands, and Seminole County Environmental Services all actively collaborate together to reduce the wildland fire risk in Seminole County.

With experience, training, and resources Seminole County can implement wildland fire reduction measures and make the community more resilient to wildfires. It will be necessary to maintain or enhance these skills, abilities, and resources with continued funding and support for equipment, training, and public outreach.

Community Statistics

Total Land Area

Seminole County has 309.22 square miles of land and 36.67 square miles of water.

Demographics

The population estimate provided by the U.S. Census as of July 2017 was 454,757 countywide. The jurisdictional population estimates and housing unit occupancy status are provided in **Table 1**. Unmaintained vacant homes are a growing concern, due to the increase in foreclosures.

Table 1. 2017 Estimated Housing Unit Occupancy

Current Population and Housing by Jurisdiction	2017 Population	Housing Units		
		Total	Occupied	Vacant
Seminole-Unincorporated	217,839	186,869	161,371	25,498
Altamonte Springs	44,482	23,350	18,485	48,865
Casselberry	28,548	12,627	10,824	1,803
Lake Mary	16,538	6,513	5,659	854
Longwood	15,156	5,854	5,244	436
Oviedo	37,701	12,729	11,717	1,012
Sanford	57,839	25,000	19,864	5,136
Winter Springs	36,654	14,093	12,903	1,190
County Totals	**454,757**	**287,035**	**246,067**	**84,794**

Source: US Census Bureau, American FactFinder, DP-04 – Selected Housing Characteristics: 2013-2017 American Community Survey 5 Year Estimates, http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml

Table 2. Population Estimates from 2017 to 2040

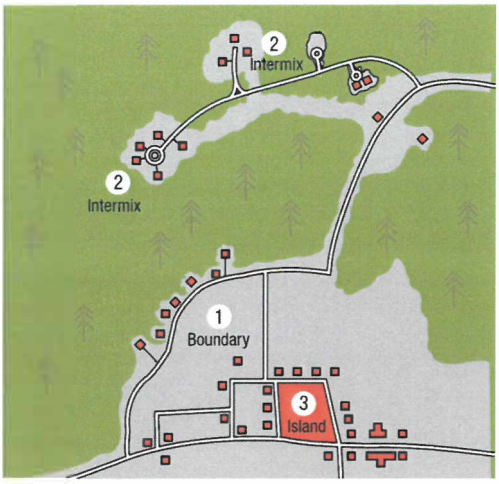
Projected Population by Jurisdiction	2017	2018	2019	2020	2021	2025	2030	2035	2040
Seminole-Unincorporated	217,839	238,498	242,951	249,067	251,859	263,023	277,001	290,679	304,661
Altamonte Springs	44,482	44,764	45,247	45,732	46,216	48,153	50,548	52,948	55,345
Casselberry	28,548	29,333	29,902	30,890	31,445	33,643	36,412	39,172	4,0940
Lake Mary	16,538	16,963	18,511	21,065	21,246	21,979	22,897	23,813	24,731
Longwood	15,156	14,283	14,627	15,213	15,280	15,551	15,895	16,292	16,633
Oviedo	37,701	38,335	38,845	39,347	39,849	41,859	44,383	46,907	49,436
Sanford	57,839	58,444	58,947	59,458	59,968	62,020	64,587	66,799	69,365
Winter Springs	36,654	36,377	36,870	37,362	37,854	39,818	42,280	44,748	47,211
Totals	**454,757**	**457,684**	**464,048**	**478,993**	**483,240**	**502,274**	**523,534**	**544,849**	**566,112**

Source: The Balmoral Group, Seminole County, FL. Socio-Economic Data Services, Task: Population Projections by Jurisdiction, Traffic Analysis Zone, and Utility Service Area, pg. 8, Table 4: Population Projections by Time Period. [1]The annualized rate of growth for the period from 2018 to 2040 is calculated per Equation 3 where the "# of years" in this case is 12.

Estimated Wildland Urban Interface (WUI) Area

The wildland-urban interface (WUI) is the area where houses and wildland vegetation coincide. There are three types of WUI:

1) Boundary – areas where development is adjacent to public or private wildland.
2) Intermix – structures are scattered and interspersed among wildland areas.
3) Island or occluded – area of wildland surrounded by development, i.e. a subdivision preserve



Source: National Fire Plan

Wildland Fire Problem Statement

Wildland fire is a natural phenomenon that involves uncontrolled fire in wilderness areas. Florida has experienced 11,997 wildland fires over the last five years that burned approximately 496,042 acres (per the Florida Forest Service Reporting System). Wildland fire can cause damage to property and human life. During times of drought, wildland fires are more likely to occur and spread rapidly.

Homes are especially susceptible to the dangers of wildland fire when they are built in a wildland-urban interface zone. This zone is an area of transition between developed areas and undeveloped wilderness. Human development has inadvertently prevented the natural occurrence of wildland fires. The interruption of the wildland fire occurrence causes fuels to accumulate. When wildland fires do occur, losses to homes and communities are intensified.

Causes of wildland fires vary (such as by lightning or human involvement) but they can be classified in terms of their physical properties, fuel type, topography and by how it is effected by weather. Fuel type is one of the most important factors in determining how wildland fires behave. Grassland, woodlands, brush land, scrubland, peat land, and other wooded areas are potential sources of fuel. In fact, there are four classifications of wildland fires depending on their fuel type.

- Muck fires - result when underground organic material is on fire. These fires burn very slowly and can smolder for long periods of time.
- Surface fires - burn low-lying vegetation such as leafs, grass, and low-lying shrubs. The rate at which fire spreads depends on how compact these fuels are to each other.
- Ladder fires - consume material connected to surface fuels and tree canopies. Fuels such as small trees, vines, and invasive plant species propagate these types of fires.
- Crown or canopy fires - result when suspended material catches fire. This type of fire can be especially fast moving and devastating.

Seminole County is susceptible to wildland fires throughout the year, particularly during the months with minimal rainfall amounts. The major cause of wildland fires and forest fires is due to residents not conforming to the burning regulations in effect and not considering the conditions as they exist (dry or windy conditions). The Spring is the highest period for lightning caused fires fueled by strong winds and lack of rainfall during the same period. There are multiple ways to combat wildland fires including but not limited to public education and outreach, prevention, detection, and suppression.

Wildland Fire Vulnerability Overview

Wildland Urban Interface

The Southeastern United States is one of the fastest growing regions in the nation, with an estimated population growth of 1.5 million people per year. The Southeastern United States also consistently has the highest number of wildfires per year (per SouthWRAP). Population growth is pushing housing developments further into natural and forested areas where most of these wildfires occur. The Wildland Urban Interface (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. 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).

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.

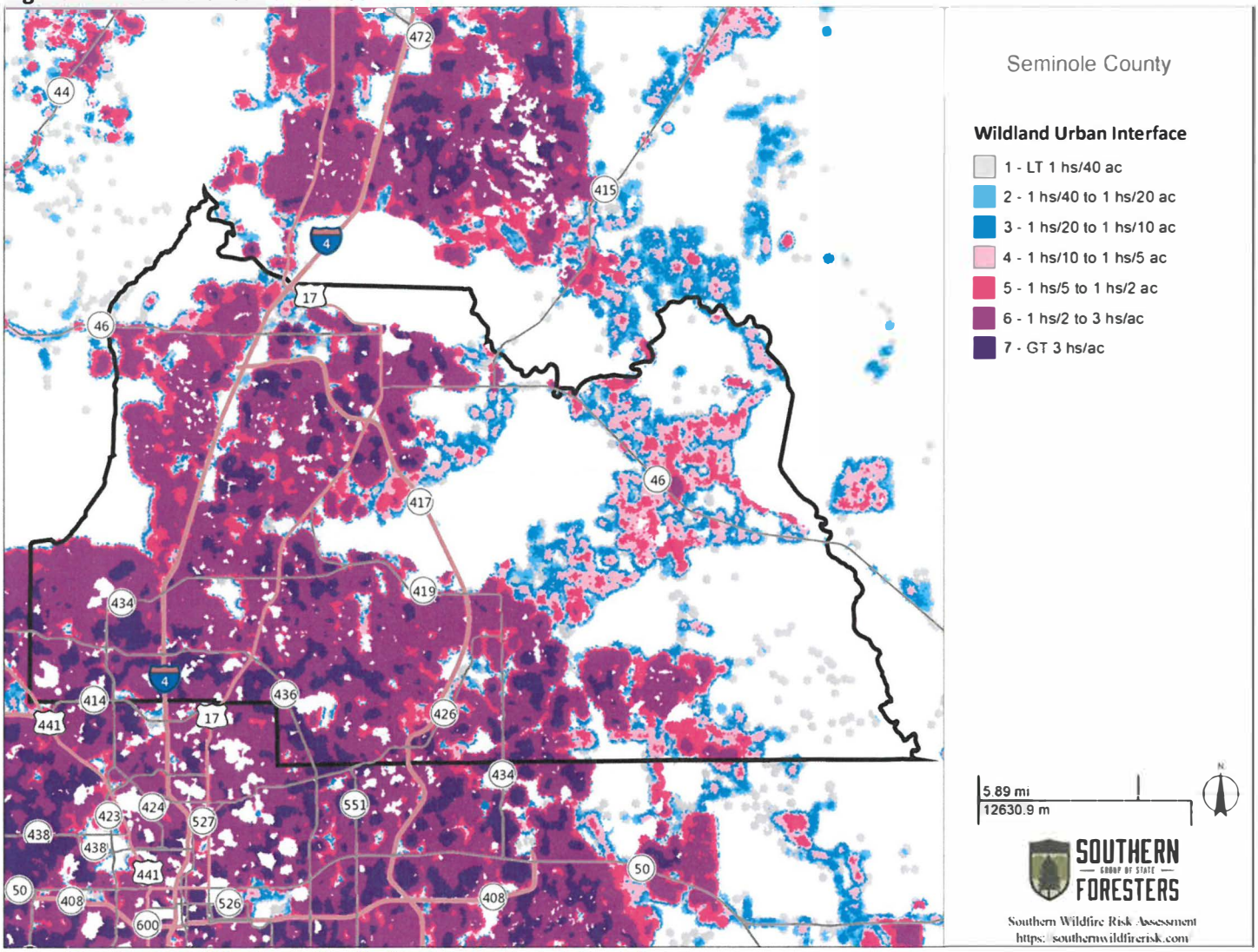
In the past, conventional wildland urban interface data sets, such as USFS SILVIS, have been used to reflect these concerns. However, USFS SILVIS and other existing data sources do not provide the level of detail for defining population living in the wildland as needed by Southern state WUI specialists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

Figure 1: Wildland Urban Interface



Source: https://southernwildfirerisk.com/Map/Pro/#project-areas Seminole County Project

WUI Risk Index

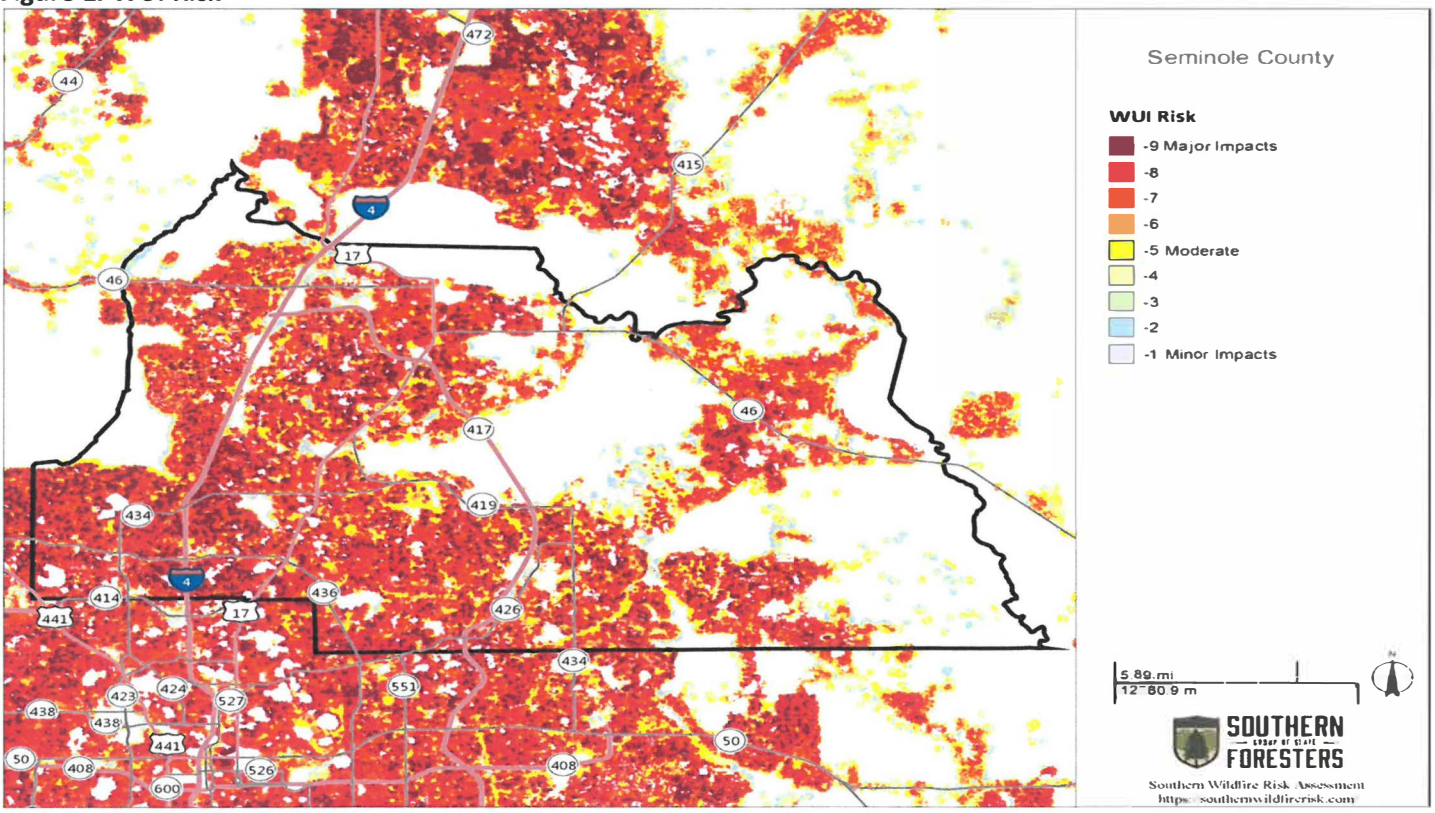
The Wildland Urban Interface (WUI) Risk Index layer is a rating of the potential impact of a wildfire on people and their homes. The key input, WUI, reflects housing density (houses per acre) consistent with Federal Register National standards. The location of people living in the Wildland Urban Interface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

Figure 2: WUI Risk



Source: https://southernwildfirerisk.com/Map/Pro/#project-areas Seminole County Project

Community Protection Zones

Community Protection Zones (CPZs) 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.

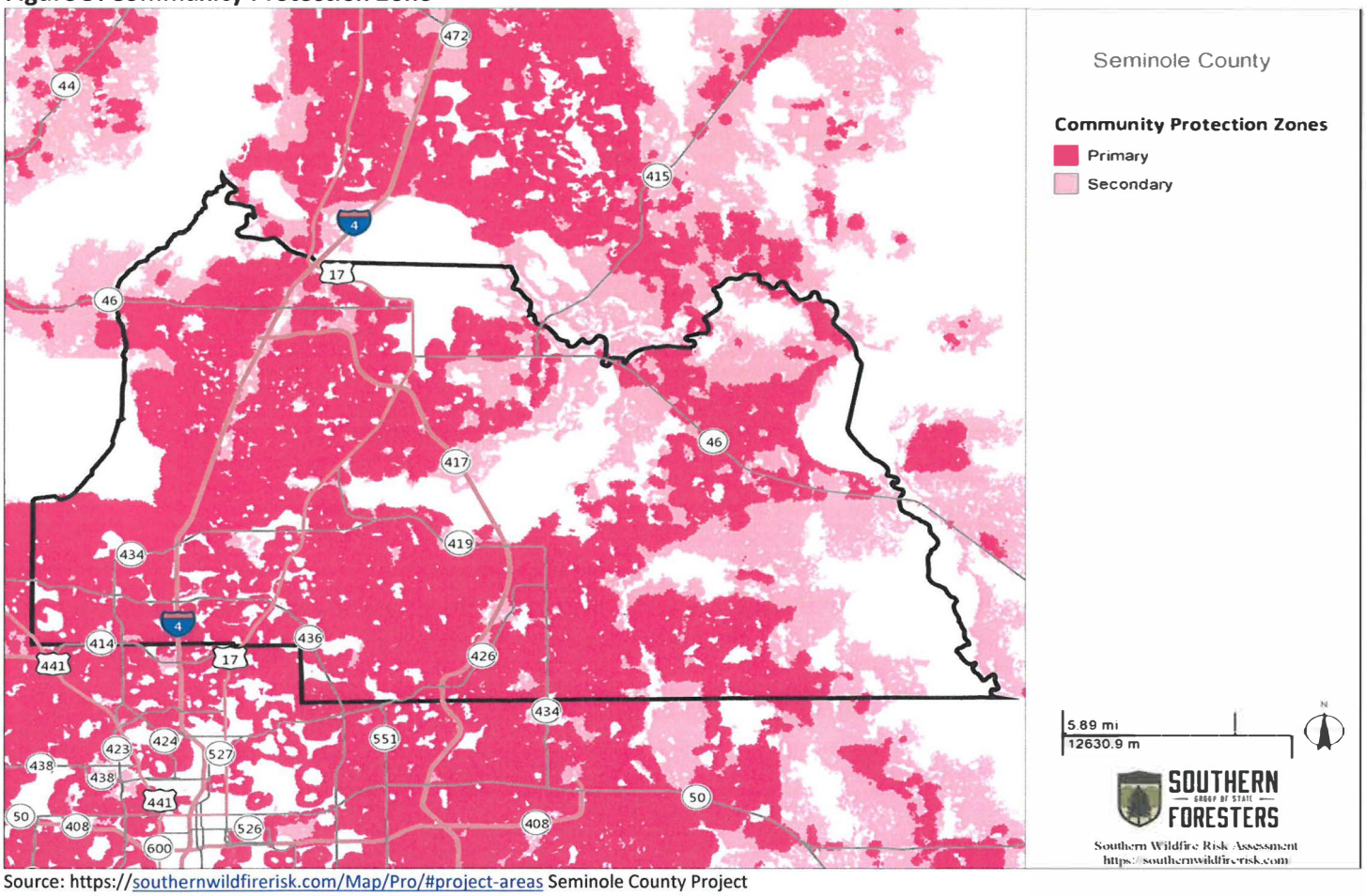
General consensus among fire planners is that for fuel mitigation treatments to be effective in reducing wildfire hazard, they must be conducted within a close distance of a community. In the South, the WUI housing density has been used to reflect populated areas in place of community boundaries (Primary 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.

Figure 3: Community Protection Zone



Source: https://southernwildfirerisk.com/Map/Pro/#project-areas Seminole County Project

Communities in High Risk in Seminole County

Geneva: Was designated as high risk based on the wildland-urban interface. Geneva is a rural community with densely populated areas adjacent to wildlands. In 1998, the community of Geneva experienced a devastating wildland fire that damaged and/or destroyed many homes. In 2017, the Genova Fire scorched approximately 100 acres of land and required the evacuation of multiple neighborhoods.

Chuluota: Was designated as a high risk. This community presents wildland fire issues based on the wildland-urban interface. Many neighborhoods are adjacent to forest areas and protected areas. This community has developed rapidly over the last few years but still remains vulnerable to high risk conditions. In 2017 the Girl Scout wildland fire destroyed multiple camp buildings and forced the evacuation of the Girl Scout camp and nearby neighborhoods.

Lake Harney: Was designated as a high risk because heavy fuel loads lay next to urban interface areas. The Seminole County Fire Department is contracted to respond to this area of Volusia County.

Carillon Community: Was designated as a high risk, due to the heavy fuel loading around the community, which has not been managed in the wildland buffer zones. This particular community is located in the Oviedo area.

Seminole Woods: Was designated as high risk, due to the fuel type in the community (scrubby flatwood/scrub), which only burns on a periodic basis and is usually catastrophic.

Black Hammock: Was designated as a high risk, due to heavy fuel load and the wildland/urban interface.

Seminole County Landfill: Was designated as a high risk due to heavy fuel loads adjacent to surrounding communities off of Osceola Road. In the event of a wildland fire, difficulties in control and suppression would be compounded due to the fuel type and quantity. A fire management plan was initiated in 2007 with prescribed burning of some areas within the Landfill Property.

NOTE: Budget constraints and funding have continued to limit the ability to properly mitigate the heavy fuel loads in areas that require mechanical treatment, timber harvesting and controlled prescribe burning.

Burn Probability

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.

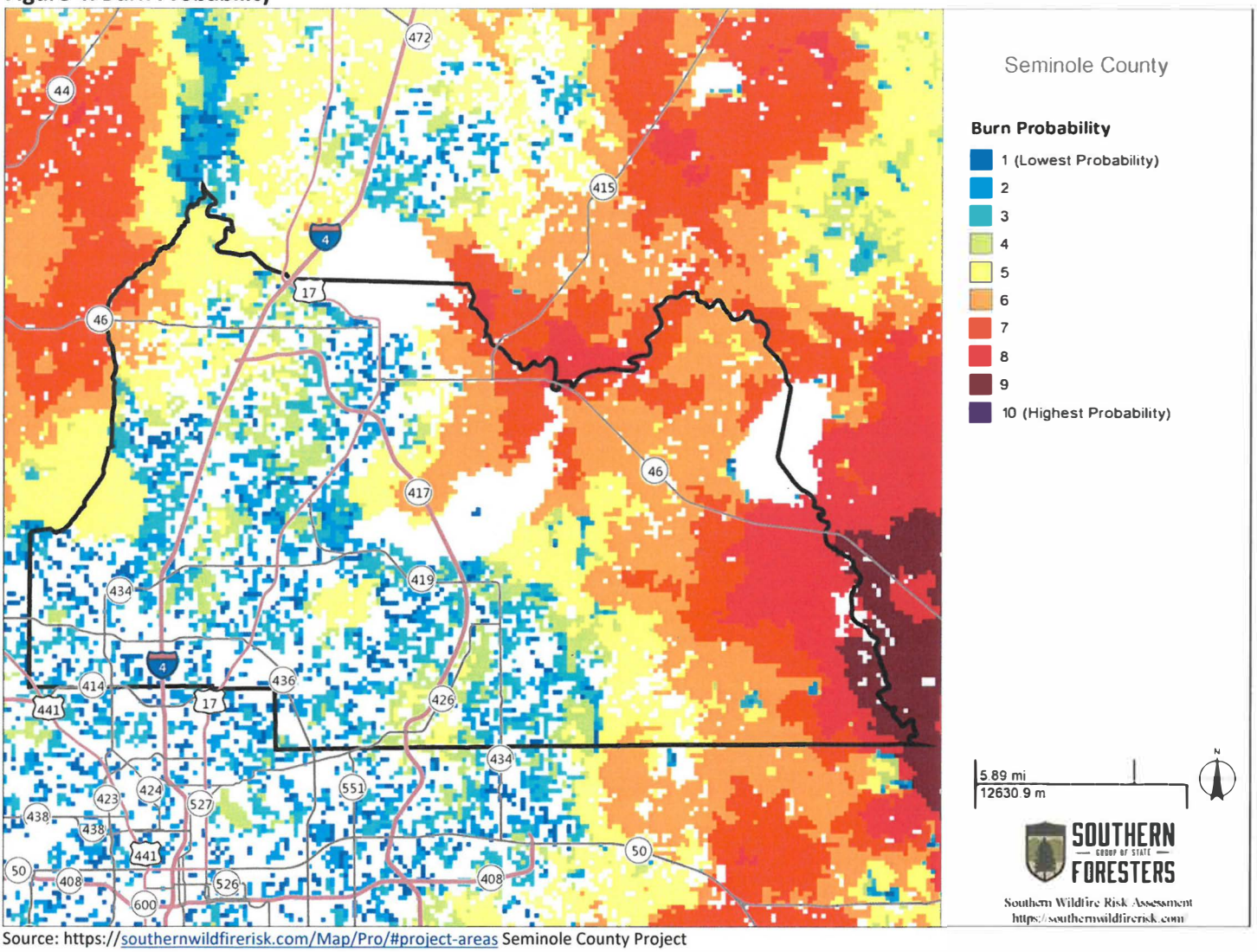
Described in more detail, it is the tendency of any given pixel to burn, given the static landscape conditions depicted by the LANDFIRE Refresh 2008 dataset (as resampled by FPA), contemporary weather and ignition patterns, as well as contemporary fire management policies (entailing considerable fire 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 land cover data for discrete geographical areas (Fire Planning Units - FPUs) and simulates fires in these FPUs.

Figure 4: Burn Probability

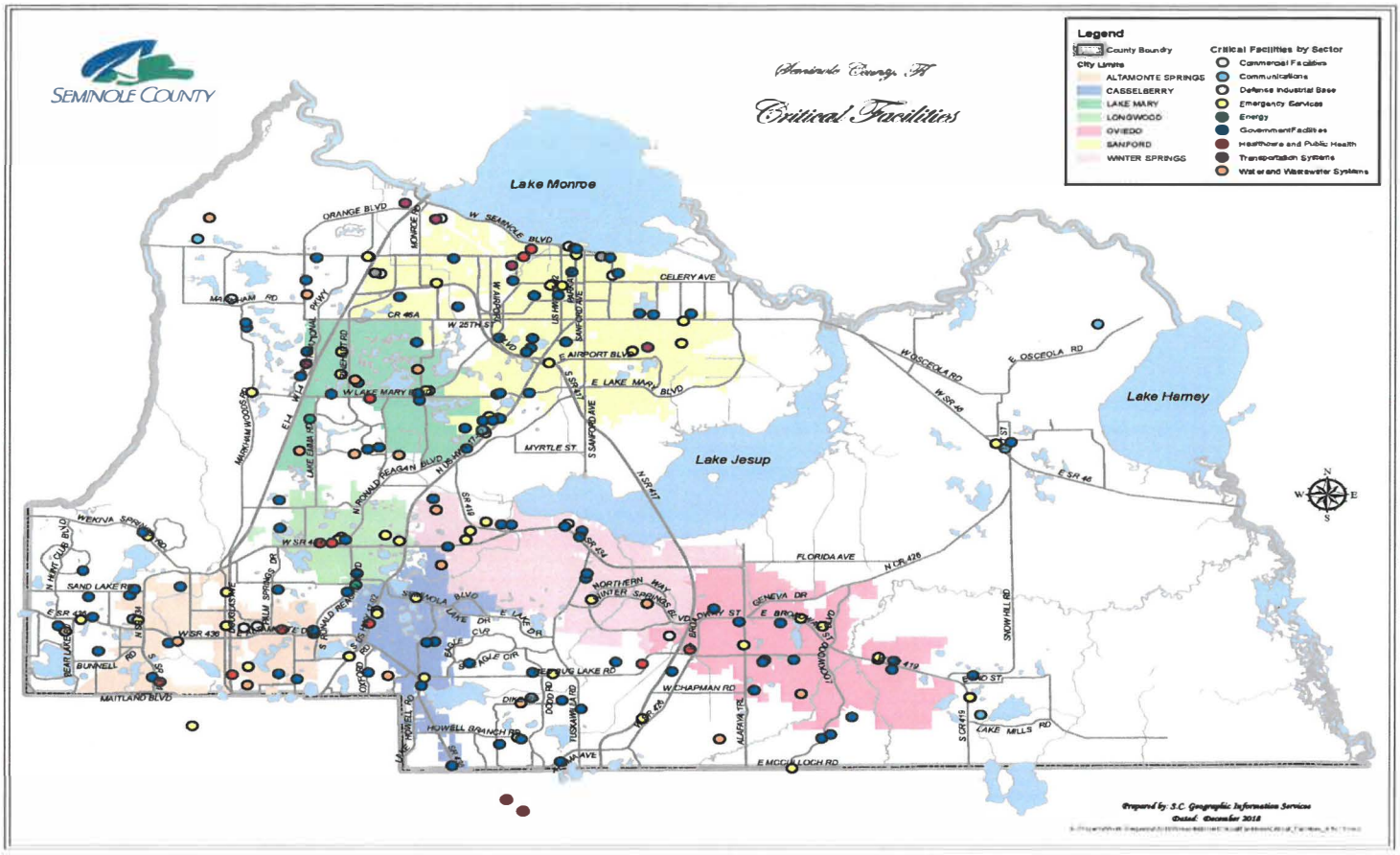


Source: https://southernwildfirerisk.com/Map/Pro/#project-areas Seminole County Project

Critical Facilities Vulnerability

Seminole County and the municipalities have identified critical facilities requiring immediate emergency response following a disaster incident. These facilities are located in the northwest and southeast wildland fire susceptible areas of the County. Critical facilities include, hospitals, public and private utility systems, fire and police departments, nursing homes, assisted living facilities, public school shelters, and the airport. A complete list of critical facilities is housed within the Seminole County Office of Emergency Management

Figure 5: Seminole County Critical Facilities



Wildland Fire History

Seminole County, and the State of Florida, have experienced major wildland fire activity on three to five year cycles. Seminole County is susceptible to wildland fires throughout the year however, the spring is the highest period for lightning caused fires fueled by strong spring winds and lack of rainfall during the same period.

In recorded history, Florida's fires received national media attention in the 1920s, which led to the creation of the Florida Division of Forestry now the Florida Forest Service. The 1935 Big Scrub Fire in the Ocala National Forest was the fastest spreading fire in the history of the U.S., covering 35,000 acres in 4 hours. In 1956, the Buckhead Fire burned 100,000 acres in Osceola National Forest in a single day. In the drought period of 1969 to 1976, fires in the Everglades again gained national attention, with some fires reaching 50,000 acres.

In 1985, Florida had its first serious "wildland-urban interface" fire with the Palm Coast Fire, which burned 250 homes. This fire was important in introducing the state to the concept of the wildland/urban interface. Research on this fire indicated that a model could predict home survivability based only on the intensity of the fire, presence of roof overhang vinyl vents, and proximity of heavy ground vegetation to the structure.

In 1998, Florida hosted the largest wildland fire aerial suppression operation ever conducted in the United States. Largely because of this massive effort, protection of structures was quite successful, with only 337 homes damaged or destroyed and 33 businesses burned. In Seminole County over 2,000 acres were burned during this event and 12 homes were destroyed. While there were no fatalities or injuries, the cost of the wildland fire was extreme. Over 1.1 million dollars was paid out for emergency services and fire suppression activities during this disaster.

Wildland fires continued to be a concern during the La Nina periods of 2000-2001, 2007, 2008-2009 and most recently in 2017 through 2018. Research has shown that the cold phase of El Niño - Southern Oscillation (ENSO), known as La Niña, frequently results in more severe wildland fire activity following a generally warmer and drier winter in Florida. Research has shown that there is correlation between acreage burned in Florida wildland fires and sea surface temperature anomalies in a region of the tropical Pacific Ocean. Over the past seventeen years, the five most active years by number of fires and by acres burned featured La Niña conditions immediately prior to or during the period when Florida's wildland fire activity is at a peak. While no major wildland fires (1,000 acres or larger) were recorded in Seminole County during the La Nina years of the past decade, citizens and property continued to be threatened by encroaching fires. Many of the fires were contained because of advances in wildland fire prevention activities. This included the enhancement of equipment and personnel wildland fire response capabilities for Seminole County.

Since 2010, Seminole County has responded as mutual aid support to wildland fires that threatened the residents of the County. While the fires were located in Lake and Volusia counties, the winds and fuel for the spread of the fire put Seminole County at great risk during these events. In addition to the threat of fire, smoke played a major role in health and emergency medical calls during these events.

Wildland Fire Response

Table 3 provides information on the number and causes of wildland fires that have historically occurred in Seminole County. Since 2004, the Seminole County Fire Department has kept records of responses to wildland fires both inside and out of Seminole County. This data was collected through Computer Automated Dispatch (CAD) and Red Alert Fire Data. The selection criterion for the CAD data was that the record should indicate a situation dispatched as a Wildland fire. On the NFIRS reports, a response would be selected if coded as a brush or vegetation fire. All jurisdictions and fire departments using the Red Alert database are considered. Lake Mary Fire Department does not use Red Alert NFIRS, but any dispatches to Wildland fires are captured. From 2017 to present Seminole County Fire Department responded to 238 Wildland fires. CAD dispatch notes show 13 alarms where the Seminole County Sheriff's Office Alert aircraft assisted with Wildland fires, Smoke Investigations, and Fires Out-side Structure. On several of these alarms the aircraft assisted with extinguishment operations utilizing the "Bambi Bucket". These numbers do not reflect the alarms when the aircraft was monitoring, positioning or providing aerial reconnaissance. From March 14 to June 6 2017 and again from March 15 to March 23, 2018 there were Burn bans in effect.

Table 3. Wildland Fire Study

Year 2014	Acres Burned	Fire Cause
	19	Act of Nature
	9	Cause under Investigation
	11	Cause Undetermined after investigation
	0	Cause other
	346.37	Debris, Vegetation burn
	.01	Equipment
	0	Failure of equipment or heat source
	2400	Incendiary (Prescribed Burn)
	.01	Incendiary (Unauthorized burning)
	0	Intentional
	1	Misuse of fire
	52.2	Natural source
	1.25	Open/outdoor fire
	27	Other causes
	3	Smoking
	16.62	Undetermined
	31	Unintentional
Total	2917.46	

Year 2015	Acres Burned	Fire Cause
	156	Act of Nature
	8	Cause under Investigation
	6	Cause Undetermined after investigation
	0	Cause other
	1425.26	Debris, Vegetation burn
	0	Equipment
	0	Failure of equipment or heat source
	0	Incendiary (Prescribed Burn)
	0	Incendiary (Unauthorized burning)
	2	Intentional
	0	Misuse of fire
	.1	Natural source
	1.62	Open/outdoor fire
	.11	Other causes
	.01	Smoking
	51.7	Undetermined
	1	Unintentional
Total	1651.8	

Year 2016	Acres Burned	Fire Cause
	0	Act of Nature
	54	Cause under Investigation
	0	Cause Undetermined after investigation
	0	Cause other
	247.92	Debris, Vegetation burn
	6.14	Equipment
	0	Failure of equipment or heat source
	0	Incendiary (Prescribed Burn)
	0	Incendiary (Unauthorized burning)
	2	Intentional
	.5	Misuse of fire
	13	Natural source
	.31	Open/outdoor fire
	5.05	Other causes
	0	Smoking
	112.11	Undetermined
	16	Unintentional
Total	457.03	

Year 2017	Acres Burned	Fire Cause
	0	Act of Nature
	2	Cause under Investigation
	1	Cause Undetermined after investigation
	165	Cause other
	1.51	Debris, Vegetation burn
	0	Equipment
	0	Failure of equipment or heat source
	0	Incendiary (Prescribed Burn)
	.1	Incendiary (Unauthorized burning)
	200	Intentional
	1.01	Misuse of fire
	46.12	Natural source
	.21	Open/outdoor fire
	0	Other causes
	0	Smoking
	258.74	Undetermined
	2	Unintentional
Total	677.69	

Year 2018	Acres Burned	Fire Cause
	171	Act of Nature
	68	Cause under Investigation
	10	Cause Undetermined after investigation
	165	Cause other
	55.13	Debris, Vegetation burn
	6	Equipment
	0	Failure of equipment or heat source
	0	Incendiary (Prescribed Burn)
	0	Incendiary (Unauthorized burning)
	6	Intentional
	1.5	Misuse of fire
	110.32	Natural source
	0	Open/outdoor fire
	27	Other causes
	3	Smoking
	383.76	Undetermined
	35	Unintentional
Total	1041.71	

Source: Seminole County Fire Department

Table 4. Fires by Cause: Seminole County 10/31/2014

Cause	Fires	Percent	Acres	Percent
Campfire	422	3.51	3487.3	0.71
Children	300	2.50	992.3	0.20
Debris Burn – Authorized – Broadcast/Acreage	378	3.15	17355.5	3.51
Debris Burn – Authorized – Piles	287	2.39	10485.5	2.12
Debris Burn – Authorized – Yard Trash	544	4.53	1287.0	0.26
Debris Burn – Non Authorized – Broadcast/Acreage	160	1.33	1518.7	0.31
Debris Burn – Non Authorized – Piles	679	5.65	5055.2	1.02
Debris Burn – Non Authorized – Yard Trash	1012	8.42	4625.1	0.94
Equipment - Agriculture	333	2.77	14511.7	2.94
Equipment – Logging	51	0.42	319.7	0.06
Equipment – Recreation	176	1.46	73716.7	14.93
Equipment – Transportation	383	3.19	8039.0	1.63
Incendiary	1812	15.08	51816.7	10.49
Lightning	2764	23.00	226253.3	45.82
Miscellaneous – Breakout	61	0.51	13017.4	2.64
Miscellaneous – Electric Fence	14	0.12	21.6	0.00
Miscellaneous – Fireworks	85	0.71	409.0	0.08
Miscellaneous – Powerlines	533	4.44	10550.5	2.14
Miscellaneous – Structures	86	0.72	238	0.05
Miscellaneous – Other	281	2.34	1702.5	0.34
Railroad	70	0.58	1094.4	0.22
Smoking	60	0.50	596.9	0.12
Unknown	1525	12.69	46706.8	9.46
Total	12016		493800.8	

Source: Florida Forest Service, HTTP://tlhforucs01/fmis.reports/FiresByCause.aspx

Table 5. Fires by Cause: Seminole County 10/31/2013 through 10/31/2018

Cause	Fires	Percent	Acres	Percent
Campfire	1	2.04	6.0	0.13
Children	1	2.04	1.0	0.02
Debris Burn – Authorized – Broadcast/Acreage	1	2.04	9.2	0.19
Debris Burn – Authorized – Piles	0	0	0	0
Debris Burn – Authorized – Yard Trash	0	0	0	0
Debris Burn – Non Authorized – Broadcast/Acreage	0	0	0	0
Debris Burn – Non Authorized – Piles	1	2.04	2.0	0.04
Debris Burn – Non Authorized – Yard Trash	0	0	0	0
Equipment - Agriculture	0	0	0	0
Equipment – Logging	0	0	0	0
Equipment – Recreation	0	0	0	0
Equipment – Transportation	0	0	0	0
Incendiary	4	8.16	3992.0	84.2
Lightning	26	53.06	475.3	10.5
Miscellaneous – Breakout	0	0	0	0
Miscellaneous – Electric Fence	0	0	0	0
Miscellaneous – Fireworks	0	0	0	0
Miscellaneous – Powerlines	3	6.12	10.3	0.22
Miscellaneous – Structures	0	0	0	0
Miscellaneous – Other	0	0	0	0
Railroad	0	0	0	0
Smoking	0	0	0	0
Unknown	12	24.49	233.0	4.93
Total	49		4728.8	

Source: Florida Forest Service, HTTP://tlhforucs01/fmis.reports/FiresByCause.aspx

Planning Process

The CWPP planning process is a collaborative effort among local, regional, state, and federal government agencies that have a role in protecting the community from wildland fire. A kickoff meeting was held on August 31, 2018 for all agencies participating in the project. Additional meetings were held on September 26, 2018, October 24, 2018, November 26, 2018, and January 23, 2019. The following individuals participated in the planning process and provided input in the preparation of this CWPP.

Table 6. CWPP Working Group Members

Representative	Name	Title/Department	Phone	Email Address
Florida Forest Service Representative	Cliff Frazier	Wildland Fire Mitigation Specialist Florida Forest Service	407-637-6592	clifford.frazier@freshfromflorida.com
Florida Forest Service Representative	Travis McGowan	Forest Area Supervisor Florida Forest Service	407-971-3502	Travis.McGowan@FreshFromFlorida.com
Emergency Management Representative	Alan Harris	Chief Administrator Seminole County Office of Emergency Management	407-665-5017	aharris@seminolecountyfl.gov
Emergency Management Representative	Kathryn Valentine	Mitigation & Recovery Coordinator Seminole County Office of Emergency Management	407-665-1012	kvalentine@seminolecountyfl.gov
Emergency Management Representative	Robert A Mitchell	Associate Planner Seminole County Office of Emergency Management	407-665-5102	rmitchell@seminolecountyfl.gov
Building Official Representative	Tony Apfelbeck	Altamonte Springs Fire Marshal Building Official	407-571-8433	ACApfelbeck@altamonte.org
Building Official Representative	Paul Watson	Seminole County Building Official	407-665-7460	pwatson@seminolecountyfl.gov
Communications Representative	Suzanne Ladd	Seminole County Fire Communications		sladd@seminolecountyfl.gov
Fire Service Representative	Toby Palmer	Battalion Chief Lake Mary Fire Department	407-585-1478	tpalmer@lakemaryfl.com
Fire Services Representative	Dennis P Miller	Seminole County Fire Department	407-665-1925	dmiller@seminolecountyfl.gov
Fire Services Representative	Kevin Beavers	Seminole County Fire Department	321-377-8317	kbeavers@seminolecountyfl.gov
Fire Services Representative	Ronnie McNeil	Deputy Chief Sanford Fire Department	407-688-5040	ronnie.mcneil@sanfordfl.gov
Fire Services Representative	Sharon Gregory	Seminole County Fire Department	407-665-5128	sgregory@seminolecountyfl.gov
Fire Services Representative	Daniel Holder	Seminole County Fire Department	407-665-5175	dholder@seminolecountyfl.gov
Land Manager	Jim Duby	Program Manager Seminole County Natural Lands	407-665-2210	jduby@seminolecountyfl.gov
Public Education Representative	Paula Thompson	Seminole County Fire Department	407-665-5025	pthompson@seminolecountyfl.gov
Public Information Representative	Ashley Moore	Seminole County Community Relations	407-665-1172	amoore@seminolecountyfl.gov
Sheriff's Office Representative	Michele Smith	Emergency Management Seminole County Sheriff's Office	321-320-2922	michelesmith@seminolesheriff.org

Local Capacity and Current Wildland Fire Protection Activities

Seminole County participates in programs and activities to reduce wildland fire hazards. A partnership was created between the Seminole County Fire Department, Natural Lands, Environmental Services, and the Florida Forest Service to collaboratively engage in wildland fire mitigation efforts. The County has conducted detailed hazard analyses in neighborhoods as well as a countywide risk assessment. The assessments are used to develop strategies and provide outreach and education to reduce risk throughout the community.

Executive Orders Declaring State of Local Emergency

The County Manager, Director of Emergency Management, and the Fire Chief may conclude that there is a risk of forest and wildland fire, which poses an imminent danger to the residents of Seminole County. Upon that determination, a Local State of Emergency issuing a Burn Ban will be drafted by the Office of Emergency Management in accordance with Florida Statute 252.38. The Chairman of the Board of County Commissioners, or Vice-Chairman, will sign the document implementing the ban for seven (7) days. Additional Burn Bans may be implemented at seven (7) day increments until the Keetch Byran Drought Index (KBDI) falls under 500, as stated in Seminole County Code of Ordinances 85.24.

Guidelines to a burn ban may include:

- The general public is prohibited from conducting any open flames, including campfires, bonfires, and trash burning.
- The general public is prohibited from igniting or discharging fireworks, novelties, trick noisemakers, and sparklers.
- Law enforcement and fire officials are directed to educate residents on the dangers of using open flames or fireworks.
- Law enforcement, State Fire Marshal, FFS, and Code Enforcement are empowered to enforce the burn ban order.

Organizations and Resources

Seminole County Emergency Operations Center

Office of Emergency Management
150 Eslinger Way
Sanford, FL 32773
407-665-5102

Local Disaster Support Agencies

The local disaster support volunteer agencies are listed in Seminole County's Comprehensive Emergency Management Plan Annex D-17 Volunteer Management.

Local Fire Services

Local fire services are the responsibility of Seminole County and municipal departments.

The Seminole County Burn Team currently utilizes an array of equipment in the management of government owned property. The Seminole County Burn Team

includes Seminole County Fire Department, Florida Forest Service and Seminole County Natural Lands.

The mitigation equipment is:

- (8) Type 6 "Wildland" Engines with tools and equipment,
- (3) Water Tenders (2500/3000/5500 gallons),
- (2) All Terrain Vehicles,
- (6) Low psi/ Medium Volume Pumps,
- (3) Float-a-Pumps, 1800 gallon "Pumpkin" drop tank,
- Assorted hose lengths and fittings,
- Assorted hand tools,
- (3) Field weather kits,
- (4) Drip torches,
- (4) 5 gallon cans of torch mix,
- Flare gun with assorted flares and (10) pairs of full protective equipment,
- (3) Four-wheel drive tracker units,
- (1) Mobile command unit,
- (1) Prescribed burn unit, and
- (2) Deuce and 1/2 all-terrain vehicles.

The FFS has the responsibility to ensure that individuals deployed through the State Emergency Response Plan (SERP) for wildland firefighting have been trained at a minimum level. This training will include: firefighter safety, basic firefighting, fire behavior, and fire tactics for the wildland urban interface. It is highly recommended that all mutual aid responders have completed the same courses.

FIREFIGHTERS (the 2nd, 3rd and/or 4th person on the apparatus)

Minimum Qualifications: These firefighters must have completed all of the following courses:

- I-100, Introduction to ICS
- S-130, Basic Wildland Firefighting
- S-190, Introduction to Wildland Fire Behavior, or Florida Fire Behavior (FFB) training.

ENGINE LEADERS (the lead person on the apparatus)

Minimum Qualifications: Some experience in suppressing wildland fires and completion of all the following courses:

- I-200- Basic ICS
- S-130- Basic Wildland Firefighting
- S-190- Introduction to Wildland Fire Behavior
- S-215- Fire Operations in the Wildland-Urban Interface, or FFCA Fire Operations in the Interface (FOI) training

FFCA STRIKE TEAM LEADERS

Minimum Qualifications: Must be qualified in the local jurisdiction as a company officer or higher and experienced in directing suppression of wildland fires. The Strike Team Leader must have completed all of the following courses:

- I-200-Basic ICS
- S-130- Basic Wildland Firefighting
- S-190- Introduction to Wildland Fire Behavior
- S-215- Fire Operations in the Wildland-Urban Interface
- S-330- Strike Team Leader

Specialized Equipment

- Turbo-Draft - This is used to access water sources up to 100 feet away that cannot be reached using a standard drafting hose.
- 2 – 2 ½ ton all hazard engines.

Rural Potable Water Provider sources:

- North of Chuluota, there are 3 small water service associations (i.e., Seminole Woods, Lake Harney, and Mullet Lake), the rest served by private well.
- Chuluota is provided central water service by Aqua Utilities Florida, Inc. (a subsidiary of Aqua America Inc.)
- Yankee Lake area is a mix of private well and county central water service.

Arson Investigation

There is a directive in place to coordinate local and state efforts for conducting arson investigations for wildland fires. Florida Statute 590.61 established an arson alert program to promote citizen education on forest fires and involvement in apprehending those who are involved in forest arson.

The purpose of this program is to:

- Engage in any lawful activity to enhance public awareness of the economic costs, environmental damage, and cultural deprivations, which accompany forest fires.
- Engage in any lawful activity to enhance public awareness of the importance of quick reports of forest arson and of accurate reporting of information to law enforcement officials to the apprehension of persons engaged in forest arson.
- Reward public-spirited citizens who cooperate with law enforcement officials in the apprehension and conviction of persons engaged in forest arson.
- Provide public recognition to public-spirited citizens who contribute to the prevention of forest arson through education programs and assistance to law enforcement officials.

Table 7 lists the Seminole County Fire Department stations, and **Table 8** lists the municipal fire departments.

Table 7. Seminole County Fire Stations (SCFD)

Fire Station	Address
Station 11	175 Newburyport Ave., Altamonte Springs
Station 12	325 Douglas Ave., Altamonte Springs
Station 13	3860 E SR 436, Apopka
Station 14	600 Hattaway Dr, Altamonte Springs
Station 16	930 Wekiva Springs Rd, Longwood
Station 21	681 Seminola Blvd, Casselberry
Station 22	7122 Hwy 17-92 S, Casselberry
Station 23	4810 Howell Branch Rd, Winter Park
Station 24	102 Moss Road N, Winter Springs
Station 25	1055 Red Bug Lake Rd, Casselberry
Station 26	850 Northern Way, Winter Springs
Station 27	5280 Red Bug Lake Rd, Winter Springs
Station 29	2300 Via Loma Dr, Oviedo
Station 34	4905 Wayside Dr, Sanford
Station 35	201 W County Home Rd, Sanford
Station 36	6200 Lake Mary Blvd W, Heathrow
Station 41	3355 SR 46 E, Sanford
Station 42	320 SR 46 E, Geneva
Station 43	110 E 7th St, Chuluota
Station 65	4999 N Orion Blvd, Orlando

Table 8. Fire Stations (Municipalities)

Fire Station	Address	Municipality
Station 15	301 Warren Ave, Longwood	Longwood
Station 17	400 Wayman St, Longwood	Longwood
Station 31	1303 William Clark Avenue, Sanford	Sanford
Station 32	300 E Airport Blvd., Sanford	Sanford
Station 33	145 E Crystal Lake Ave, Lake Mary	Lake Mary
Station 37	911 Wallace Ct, Lake Mary	Lake Mary
Station 38	1300 Central Park Dr, Sanford	Sanford
Station 44	42 Central Ave S, Oviedo	Oviedo
Station 46	300 Alexandria Blvd, Oviedo	Oviedo
Station 48	1930 W County Rd 419, Oviedo	Oviedo
Station 51	550 Don Knight Lane, Sanford	OSIA

Florida Forest Service

Table 9. FFS Work Stations

Work Station	Address	Phone
Little Big Econ State Forest Charles H. Bronson State Forest	1350 Snowhill Road, Geneva, FL 32732	407-971-3500

U.S. Forest Service
Michael Drayton, Fire Management Officer
U.S. Forest Service, Lake George Ranger District
17147 E State Road 40, Silver Springs, FL 34488
352-434-1021
mdrayton@FS.Fed.US

U.S. Forest Service Work Center

US Forest Service, Lake George Office	352-625-2520
US Forest Service, Seminole Office	352-669-3153

Community Development

The County Comprehensive Plan was last amended January 23, 2018. Future Land Use Policies (13.1-.2) in the comprehensive plan address wildland fire reduction within the Wekiva Study Area. The use of flammable plants adjacent to buildings is discouraged to maintain defensible space and reduce wildland fire impacts.

Local Mitigation Strategy Working Group

FEMA's definition of mitigation is "*the effort to reduce loss of life and property by lessening the impact of disasters*". Defined by practical application it is a planning process where communities assess risks and identify actions to reduce vulnerability to hazards. Mitigation can be done prior to, during, or after an incident; however, it is most effective when a plan is developed before a disaster strikes.

Seminole County has developed the "Seminole County Local Mitigation Strategy". Its purpose is to contribute towards reducing loss of life and property by gathering information on houses and property in vulnerable areas and identifying critical infrastructures that are at risk. This proactive tactic creates a safer community by raising awareness to citizens, and prompts communities to take preparedness action. The plan is a living document identifying hazards in the County and has recommendations on what can be done to help mitigate against these hazards. Seminole County's LMS Working Group is comprised of County employees, representatives from each of the municipalities, citizens, and local business owners.

When a disaster occurs that is beyond the capability of the County, a Local State of Emergency is put into place. Once the emergency is over, the County evaluates the damage and reports it to the State. If it is determined that the damage is beyond the State's capability for recovery, the Governor will request the President to declare the Federal Disaster. After a presidential declaration is made, FEMA will designate the area eligible for assistance and the type of funding available. Projects on the "LMS Priority List" will then be reviewed to see if any fall within the guidelines of the funding.

Some examples of these mitigation projects are:

- Wildland fire protection programs including FireWise Communities
- Vegetation reduction
- Enhanced building codes for homes and buildings
- Public warning and alert systems
- Educating the community on how to protect their families and property against potential disasters

There are also mitigation funds available during non-disaster times. The Pre Disaster Mitigation Program is used for planning and implementation of mitigation projects prior to an emergency. In addition to these grant programs, there

are specific fire protection grants, FEMA disaster service grants, emergency management preparedness grants, and performance grants. All of these combine to make Seminole County less vulnerable to disasters.

The Seminole County LMS Working Group meets on a quarterly basis to review projects, strategic planning items and action steps. The group reviews vulnerability of disasters and develop plans to strengthen Seminole County's resiliency during threats to the community.

FireWise Communities

There are currently efforts in place to encourage FireWise Communities within Seminole County through FireWise workshops, door-to-door campaigns, and wildland fire hazard & risk assessments, which all encourage local solutions for wildland fire safety by involving homeowners, community leaders, planners, developers, firefighters, and others in the effort to protect people and property from the risk of wildland fire.

Other organizations as applicable to community

Other local stakeholders, such as major land managers or community/non-profit groups have a role in fuel management, conservation or public education, (e.g. Seminole County Natural Lands Program, Seminole County Environmental Services, Wekiva Springs State Park, St. Johns Water Management District, Yankee Lake Water Treatment Facility, and The Nature Conservancy).

Wildland Fire Response Capabilities

Seminole County has the following wildland fire response capabilities and others available through local mutual aid agreements.

Station 11 (175 Newburyport Ave, Altamonte)

- WD 11 - Type-6 4x4 Wildland fire Engine - 300 gal water tank, 150 gpm pump, 20 gal class a foam tank, in-line foam proportioner, multiple hand line configurations
- John Deere 4x4 UTV Transport
- Drip Torch with spare fuel
- Assorted hand tools

Station 16 (930 Wekiva Springs Rd, Longwood)

- WD 16 - Type-6 4x4 Wildland fire Engine –300 gal water tank, 150 gpm pump, 20 gal class A foam tank, inline foam proportioner, multiple hand line configurations
- Drip Torch with spare fuel
- Assorted hand tools

Station 24 (102 Moss Rd. N. Winter Springs)

- Tanker 24 – 5500 gal water tank at Fire Training Center (201 Valentine Way, Longwood)

Station 29 (2300 Via Loma Dr, Oviedo)

- WD 27 relocated, now WD29 - Type-6 4x4 Wildland fire Engine 300 gal water tank, 150 gpm pump, 20 gal class A foam tank, inline foam proportioner, multiple hand line configurations
- Drip Torch with spare fuel
- Assorted hand tools

Station 34 (4905 Wayside Dr, Sanford)

- WD 34 - Type-6 4x4 Wildland fire Engine 400 gal water tank, 150 gpm pump, 20 gal class A foam tank, inline foam proportioner, multiple hand line configurations
- Honda 300 Fourtrax ATV
- Drip Torch with spare fuel
- Assorted hand tools
- Tanker 34 – 3000 gal water tank
- Turbo Draft

Station 35 (201 W County Home Rd, Sanford)

- WD 35 - Type-6 4x4 Wildland fire Engine 200 gal water tank, 150 gpm pump, 20 gal class A foam tank, inline foam proportioner, multiple hand line configurations
- Drip Torch with spare fuel
- Assorted hand tools

Station 41 (3355 E SR46, Sanford)

- WD 41 Type-6 4x4 Wildland fire Engine 250 gal water tank, 150 gpm pump, 20 gal class A foam tank, inline foam proportioner, multiple hand line configurations
- Polaris 4x4 UTV cargo/Transport
- Drip Torch with spare fuel
- Assorted hand tools

Station 42 (320 E SR46, Geneva)

- WD 42 - Type-6 4x4 Wildland fire Engine 400 gal water tank, 150 gpm pump, 20 gal class A foam tank, inline foam proportioner, multiple hand line configurations
- Drip Torch with spare fuel
- Assorted hand tools
- Polaris 4x4 UTV Cargo/Transport
- Tanker 42 - Type-2 6x6 all terrain Water Tender 2500 gal water tank, 500 gpm pump, multiple hand line configurations, assorted hand tools
- Burn Trailer (enclosed w/ trailer brakes and 2 5/8" hitch) – Used for wildland fires and prescribed burns, contains assorted portable water pumps, hose lines, large irrigation sprinklers, hand tools, 3 additional drip torches with 30 gal of fuel mix, Flare Gun and flares (for lighting control fires in heavy fuels) 2 inline foam proportioners, 1800 gal portable water tank and assorted adapters and nozzles

Station 43 (110 W 7th Street, Chuluota)

- WD 43- Type-6 4x4 Wildland fire Engine 400 gal water tank, 150 gpm pump, 20 gal class A foam tank, inline foam proportioner, multiple hand line configurations
- Polaris 6x6 UTV Cargo Transport
- Drip Torch with spare fuel
- Assorted hand tools

SFCD Fire Training Center (201 Valentine Way, Longwood)

- Tanker 24, 2 M35 2.5 to 6x6 Cargo Transport trucks
- The FFS has 2 dozers (550) and 1 dozer (850).

Wildland Fuel Management Capabilities

Tables 10 and **12** are representative samples of fuel management projects and fuel reduction measures. **Appendix A** includes maps for current and proposed prescribed burn areas. Seminole County has only done a small amount prescribed burning on District-managed lands in Seminole County during the 2014-2018 period. Almost all of the property in Seminole consists of floodplain wetlands that don't readily burn. There are a few small areas of uplands near Lake Jesup. A mulch mowing project was conducted to improve habitat on 4 acres at Lake Jesup Conservation Area in 2014 that also doubled as a fuel reduction treatment in an overgrown oak/palm hammock.

Table 10. Fuel Management Projects (Mechanical Treatment) in Seminole County 2005-2014

Property	Acres	Natural Community Type	Year Burned
Black Hammock Wilderness Area	9.9	Pine Flatwoods	2005
Black Hammock Wilderness Area	7.1	Pine Flatwoods	2005
Black Hammock Wilderness Area	4.2	Pine Flatwoods	2005
Geneva Wilderness Area	6.4	Oak Scrub	2005
Geneva Wilderness Area	7.8	Pasture	2005
Lake Proctor Wilderness Area	5.8	Scrub	2005
Lake Proctor Wilderness Area	6.6	Scrub	2005
Lake Proctor Wilderness Area	10.7	Scrub	2005
Econ River Wilderness Area	13.2	Sandhill	2005
Chuluota Wilderness Area	12	Scrubby Flatwoods	2006
Black Hammock Wilderness Area	2.4	Scrub	2006
Econ River Wilderness Area	5.1	Mesic Flatwoods	2006
Econ River Wilderness Area	7.2	Mesic Flatwoods	2006
Geneva Wilderness Area	7.8	Pasture	2006
Lake Proctor Wilderness Area	21	Scrub	2006
Lake Proctor Wilderness Area	10.7	Scrub	2006
Lake Proctor Wilderness Area	6.4	Scrub	2006
Black Hammock Wilderness Area	3.6	Bayhead/Mesic Flatwoods	2008
Geneva Wilderness Area	3.2	Scrub/Scrubby Flatwoods/Bayhead	2007
Geneva Wilderness Area	7.3	Mesic Flatwoods/Scrubby Flatwoods	2007
Geneva Wilderness Area	3.1	Mesic Flatwoods	2007
Econ River Wilderness Area	6.1	Pine Flatwoods	2007
Geneva Wilderness Area	9.9	Scrub	2007
Geneva Wilderness Area	6.6	Scrub	2007
Econ River Wilderness Area	5.6	Scrubby Flatwoods/Mesic Flatwoods	2007
Black Hammock Wilderness Area	2.3	Scrubby Flatwoods/Mesic Flatwoods	2008
Black Hammock Wilderness Area	1.8	Scrubby Flatwoods/Mesic Flatwoods	2008
Black Hammock Wilderness Area	3.3	Scrub	2008
Black Hammock Wilderness Area	6.2	Scrubby Flatwoods/Mesic Flatwoods	2008
Geneva Wilderness Area	4.9	Mesic Flatwoods/Scrubby Knoll	2008
Geneva Wilderness Area	7.6	Scrubby Flatwoods/chopped	2009
Econ River Wilderness Area	6.5	Pine Flatwoods/mowed	2009
Econ River Wilderness Area	6.4	Pine Flatwoods/mowed	2009
Econ River Wilderness Area	18.7	Pine Flatwoods/mowed	2009
Econ River Wilderness Area	5.6	Sandhill	2009
Geneva Wilderness Area	5.1	Scrubby Flatwoods	2009
Geneva Wilderness Area	1.5	Mesic Flatwoods	2009
Geneva Wilderness Area	2	Mesic Flatwoods/Marsh	2009
Black Hammock Wilderness Area	23	Scrub/Scrubby Flatwoods	2009
Black Hammock Wilderness Area	1.9	Scrub	2010
Black Hammock Wilderness Area	11.6	Scrub/Scrubby Flatwoods/Mesic Flatwoods	2010
Econ River Wilderness Area	5.6	Mesic Flatwoods	2010
Geneva Wilderness Area	6.6	Scrub	2010
Geneva Wilderness Area	9.9	Scrub	2010
Geneva Wilderness Area	7.6	Scrubby Flatwoods	2010
Geneva Wilderness Area	8.2	Scrub/Mesic Flatwoods	2010

Property	Acres	Natural Community Type	Year Burned
Geneva Wilderness Area	10.1	Scrubby/Mesic Flatwoods	2010
Black Hammock Wilderness Area	4.9	Chopped Scrub	2010
Black Hammock Wilderness Area	3.6	Mesic Flatwoods	2010
Lake Proctor Wilderness Area	12.3	Chopped Scrub/Scrubby Flatwoods	2010
Econ River Wilderness Area	6.4	Chopped Mesic/Scrubby Flatwoods	2011
Chuluota Wilderness Area	14.6	Chopped Sandpine Scrub	2011
Chuluota Wilderness Area	8.8	Overgrown Sandhill/Scrub	2011
Lake Proctor Wilderness Area	4.2	Mesic Flatwoods	2011
Black Hammock Wilderness Area	14.1	Mesic Flatwoods	2011
Econ River Wilderness Area	5.6	Sandhill	2012
Econ River Wilderness Area	13.2	Sandhill	2012
Black Hammock Wilderness Area	23	Scrub	2013
Econ River Wilderness Area	5.6	Flatwoods/Sandhill	2013
Chuluota Wilderness Area	30.1	Sand Pine/Scrub/Scrubby Flatwood	2014
Chuluota Wilderness Area	18.6	Scrub/Scrubby Flatwoods	2014
Black Hammock Wilderness Area	8.5	Mesic Flatwoods	2014
Black Hammock Wilderness Area	3.6	Mesic Flatwoods	2014

Table updated up 4/3/14, SCFD

Table 11. Fuel Management Projects (Mechanical Treatment) in Seminole County 2014 - 2018

Property	Burn Zones	Acres	Cost	Year
Lake Proctor Wilderness Area	5D, 5E	47	$23,192.50	2014
	4A, 4B	20	$20,000.00	2016
	5C, 5F, 5G, 5H	51	$40,800.00	2017
Lake Jesup Wilderness Area	2A, 3A&B, 4A&B, 5A	101	$43,531.00	2018
Spring Hammock Preserve	1	5	$2,155.00	2018
	TOTALS	**224**	**$129,678.50**	

Table updated up 11/8/18, SCFD

Table 12. Prescribed Burns in Seminole County 2014-2016

Property (Landfills)	Date Burned	Acres
BU-3D	4/22/14	28
BU-3H	4/22/14	10
BU-3A	4/23/14	12
BU-3C	4/23/14	12
BU-1C	11/14/14	12
BU-1D	11/14/14	20
BU-3E	12/3/14	14
BU-3F	12/3/14	10
BU-1B	12/9/14	10
BU-1D	12/9/14	17
BU-1B	2/13/15	10
BU-1E	2/13/15	22
BU-1G	2/13/15	13
BU-4K	3/3/15	34
BU-4F	4/3/15	39
BU-3G	1/26/16	7
BU-1H	1/1216	41
BU-4G	3/7/16	29

Table updated up 11/8/18, SCFD

Table 13. Prescribed Burns in Seminole County (Wilderness Areas) 2014 - 2018

Property (Wilderness Areas)	Burn Zone	Acres	Habitat	Date	Year
Geneva Wilderness Area	GWA 4A	5	Flatwoods/lake	12/12/2014	2014
	GWA 4B	15	Flatwoods/lake	12/12/2014	2014
Chuluota Wilderness Area	CWA 4D	12	Scrubby Flatwoods/pond pine flatwoods	3/31/2015	2015
	CWA 4C	23	Scrubby Flatwoods	4/1/2015	2015
Econ River Wilderness Area	ERWA 4A	8	Mesic Flatwoods/scrubby flatwoods	1/30/2015	2015
	ERWA 4B	10	Mesic Flatwoods/scrubby flatwoods	1/30/2015	2015
Geneva Wilderness Area	GWA 1C	1	Flatwoods/scrub	1/7/2015	2015
	GWA 1D	1	Flatwoods/scrub	1/7/2015	2015
Lake Proctor Wilderness Area	LPWA 5E	18	Scrub	5/8/2015	2015
Chuluota Wilderness Area	CWA 3F	17	Scrub	1/13/2016	2016
Lake Proctor Wilderness Area	LPWA 5D	26	Scrub	3/2/2016	2016
Lake Proctor Wilderness Area	LPWA 5G	7	Scrub	12/14/2017	2017
	LPWA 5H	7	Scrub	12/14/2017	2017
Econ River Wilderness Area	ERWA 5C	13	Sandhill	6/20/18	2018
Lake Proctor Wilderness Area	LPWA 5C	17	Sand Pine Scrub	2/20/18	2018
Lake Proctor Wilderness Area	LPWA 5F	21	Sand Pine Scrub	2/23/18	2018
TOTAL ACRES		***200***			

Table updated up 11/8/18, SCFD

*Due to drought conditions in the beginning of 2017 and flooding conditions at the end of 2017 no burning was able to be conducted on landfill property. Fuel management and prescribed burns are reliant on having appropriate equipment and resources.

Experience Implementing Wildfire Protection Programs

In addition to fuels management and prescribed burns, Seminole County provides ongoing outreach and education on wildland fire prevention, risk reduction and safety measures. The SCFD, the Florida Forest Service, and Seminole County Natural Lands conducted a risk assessment of the Settlers Loop area in the spring of 2010. As part of the Seminole County Wildland fire prevention campaign, Seminole County firefighters, forestry officials, and Natural-Lands managers worked to jointly conduct the wildland fire assessments on each home in the Geneva community. The purpose of the assessments is to minimize a home's risk to the dangers of wildland fire. Approximately 80 homes were assessed and recommendations were made for emergency vehicle access points, proper posting of addresses, vegetation clearance zones, and making homes more resistant to wildland fire. This is considered a best practice and should be implemented when time and funding is available.

Implementation and Plan Maintenance

The CWPP is to be implemented as resources become available to incrementally mitigate community wildland fire vulnerability. An action plan has been collaboratively developed by the CWPP Working Group to guide implementation efforts over the next 5 years. An action, as listed in this Plan, is a strategy, project, or program that reduces wildland fire vulnerability in the community. Each action will be assigned a lead agency or organization that will be responsible for implementation. Interagency and public-private partnerships in CWPP implementation are encouraged.

Wildland Fuel Management

Fuel management projects help reduce the size and intensity of wildland fires and may also decrease the likelihood that a wildland fire will start in an area. These actions can increase the safety of people and property while reducing response and suppression costs. Fuel management methods, which can be used alone or in combination with other methods to achieve site-specific benefits, include:

- Prescribed burning,
- Mechanical treatment (e.g., mowing, mulching, disking, fire line plowing, and chopping),
- Chemical treatment (herbicide application),
- Biomass removal (e.g., pine straw harvesting, vegetation or tree thinning, and timber harvesting), and
- Biomass conversion (grazing)

Fuel management treatments designed to reduce wildland fire risk are temporary and in most cases to reduce the hazard in the treated area for three to five years. Periodic management is required on a regular basis to maintain fuels at an acceptable level to reduce wildland fire risk.

Community Outreach and Education

Outreach and education initiatives are designed to raise awareness and improve community knowledge of wildland fire risk and mitigation strategies. A good example of an education program is the Florida FireWise Communities Program. Education and outreach programs can influence attitudes and opinions and lead to behavioral changes, such as homeowners' participation in fuel management strategies.

Public Information & Warning

Seminole County will provide Public Information and Warnings in accordance with the current County Comprehensive Emergency Management Plan – Operations Annex C – 1. Additionally the use of a multi-modal approach will be utilized. Alert Seminole, social and mass media, door–to–door notification and implementation of the Billboard Emergency Alert System (B.E.A.S.) Program are all avenues of public information and warning that are available for use including but not limited to signage in the area of communities at risk / fire danger, possible portable AM radio station and further Alert Seminole marketing campaigns.

FireWise Building Retrofit and Landscaping

Projects that reduce the ignitability of community facilities and private structures decrease community wildland fire vulnerability and provide FireWise models that can assist in community awareness. Grant funding, such as the FEMA Hazard Mitigation Grant Program, can be sought to retrofit public or private buildings in high-risk wildland fire zones with FireWise building materials. Other project examples could include public-private partnerships supplying FireWise landscaping materials while volunteer programs could assist in making FireWise improvements to the structure ignitability zone.

Policy and Regulation Recommendations

Updating local government plans, policies, and regulations is another effective way to advance wildland fire mitigation goals. By modifying requirements for development, high-risk wildland fire zones can be avoided or new development can be proactively designed to reduce wildland fire risk and therefore make living and working in these areas safer.

Wildland Fire Response Improvements

Opportunities to improve wildland fire response capabilities are also critical to reducing the risk of wildland fire damage to people and property. Improvements in response capabilities can include advanced training, increasing staff or volunteer fire fighting resources, and developing new procedures or protocols.

Potential Funding Sources

Project funding and/or local and state agency staff time should be continually sought in order to implement the CWPP Action Plan. The CWPP Working Group should meet annually to discuss budget requests among the partner agencies and determine potential grant opportunities that can be applied for during the year. Descriptions of major federal and state funding sources applicable to wildland fire mitigation and response improvements are available in the Florida State Hazard Mitigation Plan in the Wildland Fire Mitigation Annex.

Plan Maintenance and Evaluation

The CWPP shall be reviewed on an annual basis to ensure information is current, monitor progress of the Plan, and alter Plan content as necessary. Before the 5-year renewal date, the plan shall receive a review, by the LMS Committee, of the vulnerability assessment and the action plan to evaluate the effectiveness over the past 5 years and its suitability for the next 5 years. A resource for evaluating the plan is the *Community Wildfire Protection Plan Evaluation Guide* prepared by the University of Oregon Resource Innovations Institute for a Sustainable Environment in 2008. The FFS has adapted evaluation questions from this resource to guide Florida communities in assessing the CWPP during a major plan update. The organizational representation from the Working Group should be reconvened, at a minimum, to conduct the major update. The 5-year update should ideally occur prior to or simultaneously with the 5-year update to the Local Mitigation Strategy. Only the 5-year update requires new plan approval signatures (**page 3**).

Goals and Objectives

Goal 1 – Identify, Develop, Implement, And Reduce Hazard Vulnerability through Effective Wildland Fire Related Mitigation Programs.

Objective 1.1 – Identify Hazards, Risk Areas And Vulnerabilities In The Community Using Historic And Scientific Data.

	Action Items	Responsible Agency	Position	Position #	Reviewed
A)	Revise The Wildland Fire Vulnerability Assessment To Include Critical Facilities And Key Resources	Seminole OEM	EM Associate Mitigation & Recovery Coordinator	407-665-5139	Annually
B)	Review New Community Developments For Wildland Interface Issues	Building Division	Building Official	407-665-7460	Ongoing
C)	Southarp (Southern Wildfire Risk Assessment Portal) Program Hazard	FFS	Wildland Fire Mitigation Specialist - Orlando	407-637-6592	Ongoing
D)	Track Number of Wildland Fires in a Specific Community and Previous Personnel Requirements to Identify Resources.	SCFD	Battalion Chief - Special Operations	407-665-5175	Ongoing
E)	Use GIS To Identify Risk Hazard Areas For Urban-Wildland Interface And Include In CWPP	SCFD, County GIS	Battalion Chief - Special Operations Program Manager - GIS	407-665-5175 407665-1105	Ongoing
F)	Conduct Training For All City / County Building Inspectors And Fire Prevention Staff For Site Plan Reviews.	All Building Officials			Ongoing

Objective 1.2 – Measure Effectiveness of Mitigation Initiatives Implemented In the Community through Documentation, Disaster After Action/Improvement Plans, And Public Comment.

	Action Items	Responsible Agency	Position	Position #	Reviewed
A)	Update Rural Water Supply Plan For Locations (Alternative Water Supply, New Development Water Supply, Portable Tanks), Tankers , Drafting Capabilities	SCFD	Battalion Chief - Special Operations	407-665-5175	Ongoing
B)	Update Database To Track Prescribed Burns And Map Progress	SCFD, Natural Lands, FFS	Battalion Chief - Special Operations Program Manager - Natural Lands Wildland Fire Mitigation Specialist - Orlando	407-665-5175 407-665-7936 407-637-6592	Ongoing
C)	Conduct After Action / Improvement Plan For Any Large Wildland Fire That Damages A Structure	SCFD, Seminole OEM, FFS	Battalion Chief - Special Operations EM Associate Wildland Fire Mitigation Specialist - Orlando	407-665-5139 407-637-6592	Following Each Incident

Objective 1.3 – Conduct A Gap Analysis Of Response And Prevention Resources In Seminole County To Meet The Needs Of The Community.

	Action Items	Responsible Agency	Position	Position #	Reviewed
A)	Annually Assess And Identify Gaps For Wildland Firefighting Resources	SCFD, FFS	Battalion Chief - Special Operations Wildland Fire Mitigation Specialist - Orlando	407-665-5175 407-637-6592	Annually
B)	Annually Assess And Identify Gaps For Prevention Resources	Natural Lands, FFS	Program Manager - Natural Lands Wildland Fire Mitigation Specialist - Orlando	407-665-2210 407-637-6592	Annually
C)	Assess The Need For Fire Hydrant Placement In The Wildland Urban Interface	All Building Officials			Ongoing

Objective 1.4 – Reduce Resource Gap Addressed In Objective 1.3

	Action Items	Responsible Agency	Position	Position #	Reviewed
A)	Budget For New Apparatus, Equipment Or Personnel	SCFD	Battalion Chief - Special Operations	407-665-5175	Annually
B)	Maintain Prevention Tactics And Programs	Natural Lands, FFS	Program Manager - Natural Lands Wildland Fire Mitigation Specialist - Orlando	407-665-2210 407-637-6592	Ongoing
C)	Seek Mitigation Funding For Wildland Fire Prevention	SCFD, Natural Lands	Battalion Chief - Special Operations Program Manager - Natural Lands	407-665-5175 407-665-2210	Annually
D)	Ensure Maintenance Of Current Equipment And That It Is Part Of The Annual Budgeting Process	County / Municipal FD	Battalion Chief - Special Operations	407-665-5175	Ongoing
E)	Determine Annually If Additional Agency Capacity, Equipment, Or Contractor Funding Is Needed To Meet Fuel Management Goals.	All Land Management Agencies			Annually

Objective 1.5 – Apply Wildland Fire Mitigation Best Practices And Lessons Learned, As Available.

	Action Items	Responsible Agency	Position	Position #	Reviewed
A)	Monitor And Track Best Practices And Lessons Learned From Wildland Fires Across The State	FFS	Wildland Fire Mitigation Specialist - Orlando	407-637-6592	Ongoing
B)	All Prescribed Burn Team Partners Should Streamline Their Operations To Form One Entity. Streamlining Of Efforts Must Go Into Funding Efforts, Resources, And The Burn Plan.	SCFD Natural Lands FFS	Battalion Chief - Special Operations	407-665-5175	Ongoing
C)	Explore Methodologies For Identifying Neighborhoods That Need Technical Assistance To Perform Wildland Fire Mitigation Retrofits.	LMS Working Group	Mitigation & Recovery Coordinator	407-665-1012	Annually
D)	Encourage The Removal Of Vegetation From High Wildland Fire Risk Areas.	Authority Having Jurisdiction			Annually

Goal 2 – Continue To Foster Interagency Relationships To Mitigate Wildland Fire Hazards Throughout Seminole County.

Objective 2.1 – Interagency Agreements And Collaboration Will Be Used To Improve Multi-Jurisdiction / Multi-Agency Coordination.

	Action Items	Responsible Agency	Position	Contac T #	Reviewed
A)	Annually Review Interagency Agreements	SCFD	Battalion Chief - Special Operations	407-665-5175	Annually
B)	Continue Joint Efforts To Coordinate Prescribed Burns And Fuel Reduction Measures.	Each Agency			Ongoing

Objective 2.2 – Coordinate And Foster Partnerships Between Local, State, And Federal Agencies To Reduce Wildland Fire Risk.

	Action Items	Responsible Agency	Position	Position #	Reviewed
A)	Annually Conduct Prescribed Burn Planning Meeting	FFS, Natural Lands, SCFD	Wildland Fire Mitigation Specialist - Orlando Program Manager - Natural Lands Battalion Chief - Special Operations	407-637-6592 407-665-2210 407-665-5175	Annually

Objective 2.3 – Develop A Multi-Agency / Multi-Jurisdictional Training Plan. It Is Highly Recommended That All Mutual Aid Responders Have Completed The Same Courses.

	Action Items	Responsible Agency	Position	Position #	Reviewed
A)	Conduct Wildland Fire Training For All Jurisdictions And Agencies In Seminole County On An Annual Basis	SCFD	Battalion Chief - Special Operations	407-665-5175	Annually
B)	Maintain Position Specific Credentials For Firefighters.	SCFD	Battalion Chief - Special Operations	407-665-5175	Ongoing
C)	Train Members of the County and Municipal Fire Departments as Firewise Community Resources of Information.	FFS	Wildland Fire Mitigation Specialist - Orlando	407-637-6592	Ongoing

Goal 3 – Utilize Education To Increase Public And Private Sector Awareness And Support For Wildland Fire Hazard Mitigation In Seminole County.

Objective 3.1 – Utilize Outreach Efforts, To Expand Community Awareness Of Wildland Fire Hazard And Strategies That Can Be Utilized To Improve Community Safety.

	Action Items	Responsible Agency	Position	Position #	Reviewed
A)	Produce A Public Service Announcement On SGTV That Promotes Wildland Fire Prevention	SCFD, FFS, Natural Lands	Battalion Chief - Special Operations	407-665-5175 407-637-6592 407-665-2210	
B)	Promote Wildland Fire Prevention Through Social Media During High Activity Months	SCFD, FFS, Natural Lands	Battalion Chief - Special Operations Wildland Fire Mitigation Specialist - Orlando Program Manager - Natural Lands	407-665-5175 407-637-6592 407-665-2210	Annually (Wildfire Season)
C)	Conduct An Annual Workshop On Wildland Operations	SCFD, Seminole OEM, FFS	Battalion Chief - Special Operations EM Associate Wildland Fire Mitigation Specialist - Orlando	407-665-5175 407-665-5139 407-637-6592	Annually
D)	Develop Wildland Fire Mitigation Task Force To Review And Implement Best Practices	SCFD, FFS	Battalion Chief - Special Operations Wildland Fire Mitigation Specialist - Orlando	407-665-5175 407-637-6592	Ongoing

Objective 3.2 – Utilize Education Materials And Resources, To Educate And Engage Planners, Developers Decision Makers, Community Members, Teachers, The General Public, And Other Participants In Wildland Fire Hazard Mitigation.

	Action Items	Responsible Agency	Position	Position #	Reviewed
A)	Provide Wildland Fire Mitigation Educational Material To Residents Of Wildland Urban Interface Communities By Utilizing The Ready, Set, Go! Program	FFS	Wildland Fire Mitigation Specialist - Orlando	407-637-6592	Ongoing
B)	Provide County and Municipal Fire Stations with Firewise Education Materials.	FFS	Wildland Fire Mitigation Specialist - Orlando	407-637-6592	Annually
C)	Continue Community-Specific Education Events And Target Additional At Risk Locations To Hold These.	FFS W/ Authority Having Jurisdiction	Wildland Fire Mitigation Specialist - Orlando	407-637-6592	Annually
D)	Plan And Conduct A Series Of Fire Station Open House Events With Info On Outdoor Burning Laws, Firewise Practices, And Home Safety Fire Safety Practices.	Fire Department	All FD's		Annually
E)	Coordinate With School Board To Explore Feasibility Of Using The FFS On-Line Interactive Wildland Fire Prevention Program For Grades 4-6.	FFS	Wildland Fire Mitigation Specialist - Orlando	407-637-6592	Annually (Wildfire Season)
F)	Continue To Identify Other Community Organizations And Events In Which Wildland Fire Mitigation Education Could Be Integrated To Utilize Existing Resources And Distribution Methods.	LMS Working Group	Mitigation & Recovery Coordinator	407-665-1012	Annually

G)	Deliver A Presentation About The CWPP To The LMS Working Group At One Of The Quarterly Meetings	LMS Working Group Emergency Manager	Mitigation & Recovery Coordinator Emergency Manager	407-665-1012 407-665-5017	Annually
H)	Continue To Coordinate With County IFAS To Schedule And Conduct A "Firewise Home" And "Prescription Burn" Education Program As Part Of Their Annual Public Education Curriculum.	FFS	Wildland Fire Mitigation Specialist - Orlando	407-637-6592	Annually

Objective 3.3 – Educate The Public On Current Emergency Warning Systems.

	Action Items	Responsible Agency	Position	Position #	Reviewed
A)	Actively Promote And Encourage The Use Of Public Information And Warning Systems Such As Alert Seminole	Seminole OEM	EM Associate	407-665-5139	Ongoing

Goal 4 – Strive to Reduce Seminole County's Wildland Fire Hazard Vulnerability of Publicly Owned Facilities and Infrastructure through the Application of Scientific Research and Development.

Objective 4.1– Evaluate Critical Infrastructure To Ensure Resilience During A Wildland Fire.

	Action Items	Responsible Agency	Position	Position #	Reviewed
A)	Review Risk Assessment And Identify Critical Infrastructures That Identify Areas By Wildland Fire Risk	Seminole OEM	EM Associate	407-665-5139	Ongoing

Objective 4.2 – Implement Wildland Mitigation Tactics to Protect Critical Infrastructure

	Action Items	Responsible Agency	Position	Position #	Reviewed
A)	Encourage Prescribed Burns And Wildland Fire Mitigation Efforts Including The Development Of Wildland Fire Breaks Near And Around Critical Infrastructures	Natural Lands, SCFD FFS	Program Manager - Natural Lands Battalion Chief - Special Operations Wildland Fire Mitigation Specialist - Orlando	407-665-2210 407-665-5175 407-637-6592	Ongoing
B)	Evaluate any Mitigation projects that could go in the LMS	LMS Working Group	Mitigation & Recovery Coordinator	407-665-1012	Ongoing

Goal 5 – Protect Seminole County's Cultural, Economic and Natural Resources from Wildland Fire Hazards.

Objective 5.1 – Support Mitigation Initiatives and Policies that Protect the County's Cultural, Economic, and Natural Resources.

	Action Items	Responsible Agency	Position	Position #	Reviewed
A)	Assess And Enhance Policies And Procedures For Protecting Natural Lands, Such As Prescribed Burning And Other Appropriate Fuel Management Techniques	Natural Lands	Program Manager - Natural Lands	407-665-2210	Ongoing
B)	Continue To Collaboratively Draft An Annual Fuel Management Plan With Specific Projects Prioritized And Paired With Available Agency Funding	FFS	Wildland Fire Mitigation Specialist - Orlando	407-637-6592	Annually
C)	Continue To Collaboratively Draft An Annual Fuel Management Plan With Seminole County Landfill Prioritized And Paired With Available Agency Funding	SCFD Natural Lands	Battalion Chief - Special Operations Program Manager - Natural Lands	407-665-5175 407-665-2210	Ongoing
D)	Continue To Collaboratively Draft An Annual Fuel Management Plan With Yankee Lake Prioritized And Paired With Available Agency Funding	Environmental Services			Ongoing
E)	Continue To Mitigate Invasive Plant Species Within Existing Areas Of Increased Wildland Fire Risk.	All Land Management Agencies			Annually

Goal 6 - Develop Policies And Regulations To Support Effective Hazard Mitigation Programming Throughout The Community.

Objective 6.1 – Address Building and Land Development Codes to Reduce the Risk of Wildland Fire.

	Action Items	Responsible Agency	Position	Position #	Reviewed
A)	Develop Ordinance/Rule To Reduce The Risk Of Wildland Fire	Planning And Development	Director - Development Services	407-665-7371	Ongoing
B)	Assure Comprehensive Plan Addresses Locating Government Buildings Outside High Risk Areas Management Techniques	Seminole County Building/Planning	Building Official	407-665-7460	Ongoing

Objective 6.2 – Establish And Enforce Regulations To Ensure Public And Private Property Maintenance Is Consistent With Minimizing Vulnerabilities To Wildland Fire Hazards.

	Action Items	Responsible Agency	Position	Position #	Reviewed
A)	Enforce Fire Prevention Code And Florida Building Code Provisions That Address Wildland Fire Hazard Mitigation And Prevention	Local Fire Prevention Building Departments	Building Official	407-571-8433	Ongoing
B)	Enforce Fire Prevention Code Provisions That Address Water Supply In The Wildland Urban Interface	Local Fire Prevention			Ongoing
C)	Continue With Fuel Reduction Along Strategic Corridors In Community.	Authority Having Jurisdiction			Annually
D)	Encourage The Reduction Of Fuel Loading On Vacant And Non-Vacant Lots Within 30 Feet Of Structures.	Authority Having Jurisdiction			Annually

Goal 7 – Encourage Economic Vitality Of The Community By Promoting Businesses Continuity, Disaster Planning And Employment Opportunities.

Objective 7.1 – Establish Programs, Facilities and Resources to Support Business Resumption Activities.

	Action Items	Responsible Agency	Position	Position #	Reviewed
A)	Encourage Continuity Planning With Small Businesses	Seminole OEM	EM Associate	407-665-5139	Ongoing
B)	Participate And Actively Encourage Emergency Management Planning For Business In Wildland Urban Interface	Seminole OEM	EM Associate	407-665-5139	Ongoing

Objective 7.2 – Address The Post Disaster Economic Recovery For Wildland Fires That Cause Damage To The Agriculture Or Horticulture Communities.

	Action Items	Responsible Agency	Position	Position #	Reviewed
A)	Conduct Wildland Fire Education / Economic Stabilization Programs To Agriculture / Horticulture Community	Seminole OEM, Extension Services	Senior Planner Division Manager	407-665-5121 407-665-5556	Ongoing

Appendix A: Wildland Fire Vulnerability Assessment Maps / Methodology & Prescribed Burn Areas

This Appendix includes the following:
Methodology Summary
Maps

- Seminole County Wildland Fire Risk (H-M-L)

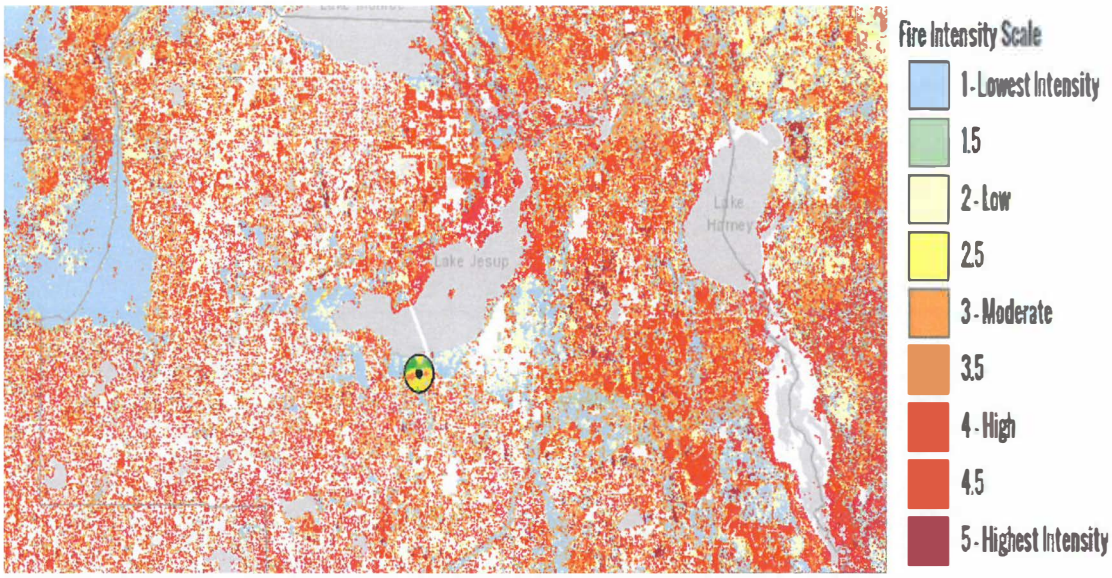
Wildland Fire Vulnerability Assessment General Methodology

The general methodology used in the assessment combined wildland fire risk outputs, developed as part of the Southern Wildland Fire Risk Assessment project and subsequent Florida Division of Forestry (DOF) updates, with parcel and assessment data obtained from the Florida Division of Revenue (DOR). Data was combined to generate summaries consistent with FEMA Hazard Mitigation Planning methodologies that defined:

- total population by wildland fire risk zone in each county
- total number of structures by wildland fire risk zone in each county
- total value ($) of structures by wildland fire risk zone in each county
- total acreage of wildland fire risk and surface fuels in each county

Wildland Fire Risk Assessment

The Southern Wildland Fire Risk Assessment (SWRA) project and subsequent updates for Florida conducted by the Florida Division of Forestry provide up to date wildland fire occurrence, hazard and risk data. This data is available as a 30m-resolution dataset in GIS format. The availability of the datasets provided a great benefit to this project as it greatly reduced the effort and cost for compiling the risk assessment information. The methods were prototyped using the SWRA outputs as the FL DOF assessment update was not completed at the time. However, these methods can be applied to any wildland fire risk data source. It reflects the possibility of suffering loss. It combines the Wildland Fire Susceptibility Index measure, which is related to the probability of an acre burning (threat), with the Fire Effects Index, which identifies those areas that have important values at risk to wildland fire and/or are costly to suppress.



Source: www.southernwildland firerisk.com. https://southernwildfirerisk.com/Map/Pro/#project-areas The Florida Forest Service conducted an update to the SWRA in 2011 using updated fuels and fire occurrence data.

Appendix B: 2018 Community Wildfire Protection Plan Sources & References

- Florida Forest Service, tlhforucs02.doacs.state.fl.us/fmis.publicReports/FiresByCause.aspx
- Florida Forest Service tlhforucs02.doacs.state.fl.us/fmis.publicReports/FireActivityByDate.aspx
- The Balmoral Group, Seminole County, FL. Socio-Economic Data Services, Task: Population Projections by Jurisdiction, Traffic Analysis Zone, and Utility Service Area, pg. 8, Table 4: Population Projections by Time Period. (1)The annualized rate of growth for the period from 2018 to 2040 is calculated per Equation 3 where the "# of years" in this case is 12.
- National Fire Plan
- SouthWRAP southernwildfirerisk.com/Map/Pro/#project-areas Seminole County Project
- Seminole County Fire Department
- SouthWRAP southernwildlandfirerisk.com
- SouthWRAP southernwildfirerisk.com/Map/Pro/#project-areas
- The Balmoral Group, Seminole County, FL. Socio-Economic Data Services, Task: Population Projections by Jurisdiction, Traffic Analysis Zone, and Utility Service Area, pg. 8, Table 4: Population Projections by Time Period. (1)The annualized rate of growth for the period from 2018 to 2040 is calculated per Equation 3 where the "# of years" in this case is 12.
- US Census Bureau, American FactFinder, DP-04 – Selected Housing Characteristics: 2013-2017 American Community Survey 5 Year Estimates, factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml

Table	*Title*	*Source*	*Pg(s)*
Table 1	2017 Estimated Housing Unit Occupancy	US Census Bureau, American FactFinder, DP-04 – Selected Housing Characteristics: 2013-2017 American Community Survey 5 Year Estimates, http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml	8
Table 2	Population Estimates from 2017 to 2040	The Balmoral Group, Seminole County, FL. Socio-Economic Data Services, Task: Population Projections by Jurisdiction, Traffic Analysis Zone, and Utility Service Area, pg. 8, Table 4: Population Projections by Time Period. (1)The annualized rate of growth for the period from 2018 to 2040 is calculated per Equation 3 where the "# of years" in this case is 12.	8
Table 3	Wildland Fire Study	Seminole County Fire Department	18-19
Table 4	Fires by Cause: Seminole County 10/31/2014	Florida Forest Service, http://tlhforucs01/fmis.reports/FiresByCause.aspx	20
Table 5	Fires by Cause: Seminole County 10/31/2013 through 10/31/2018	Florida Forest Service, http://tlhforucs01/fmis.reports/FiresByCause.aspx	20
Table 6	*CWPP Working Group Members*	Seminole County Office of Emergency Management	21
Table 7	*Seminole County Fire Stations (SCFD)*	Seminole County Fire Department	25
Table 8	*Fire Stations (Municipalities)*	Seminole County Fire Department	25
Table 9	*FFS Work Stations*	Florida Forestry Service	25
Table 10	Fuel Management Projects (Mechanical Treatment) in Seminole County	Seminole County Fire Department	29-30
Table 11	Fuel Management Projects (Mechanical Treatment) in Seminole County	Seminole County Fire Department	30
Table 12	Prescribed Burns in Seminole County	Seminole County Fire Department	30
Table 13	Prescribed Burns in Seminole County (Wilderness Areas)	Seminole County Fire Department	31

Figure	*Title*	*Source*	*Pg*
Figure 1	Wildland Urban Interface	https://southernwildfirerisk.com/Map/Pro/#project-areas Seminole County	11
Figure 2	WUI Risk	https://southernwildfirerisk.com/Map/Pro/#project-areas Seminole County	12
Figure 3	Community Protection Zone	https://southernwildfirerisk.com/Map/Pro/#project-areas Seminole County	13
Figure4	Burn Probability	https://southernwildfirerisk.com/Map/Pro/#project-areas Seminole County	15
Figure 5	Seminole County Critical Facilities	Seminole County GIS	16

THE ISSUE IS
NOT WHETHER AN AREA WILL BURN

BUT*WHEN* IT WILL BURN