



Seminole County Community Wildfire Protection Plan

Updated October 2014



SEMINOLE COUNTY OFFICE OF EMERGENCY MANAGEMENT
150 BUSH BLVD.
SANFORD, FL. 32773

Executive Summary

The Community Wildfire Protection Plan (CWPP) was developed through the cooperation of a public/private partnership including the Florida Division of Forestry, local fire departments, United States Forestry Service, Seminole County Natural Lands, and the Office of Emergency Management. The CWPP assesses the wildfire risk in Seminole County by reviewing historical wildfires, 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, respond, and recover from these emergencies. The CWPP is a guideline for actions that will be taken by the Local Mitigations Strategy Working Group, fire departments in Seminole County, and County Office of Emergency Management.

The strategic action items include but are not limited to public education programs, fuel reduction activities (prescribed burns and vegetation removal), public information and outreach, response tactics and equipment, and fire breaks and lines. The CWPP will give Seminole County additional credit when applying for wildfire protection grants. By adopting this plan, Seminole County can be 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 how wildland fuel management projects are implemented. Having a CWPP gives the county priority status when applying for federal funding for wildfire 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 wildfire 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 CWPP meets the minimum requirements of the Healthy Forests Restoration Act. The Plan was developed in a collaborative process with input from local, state, and federal partners, and other relevant stakeholders; it 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 wildfire protection and response. The individuals listed below comprise the core decision-making team responsibilities for the development of this plan and mutually agree on the plan contents.

Local Government Representative

Alan Harris, Emergency Manager
Department of Public Safety
150 Bush Blvd., Sanford, FL 32773
407-665-5017
aharris@seminolecountyfl.gov

Signature: _____ Date: _____

Local Fire Services Representative

Jeff Ward, Division Chief of Operations
Seminole County EMS/Fire/Rescue
201 Valentine Way, Longwood, FL 32750
407-665-5127
JWard@seminolecountyfl.gov

Signature: _____ Date: _____

Local Florida Forest Service Representative

Cliff Frazier
Florida Forest Service
8431 S. Orange Blossom Trail, Orlando, FL 32809
407-856-6518
Clifford.Frazier@freshfromflorida.com

Signature: _____ Date: _____

U.S. Forest Service or Department of Interior Representative

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
mdayton@FS.Fed.US

Signature: _____ Date: _____

Table of Contents

EXECUTIVE SUMMARY.....	I
PLAN APPROVAL.....	II
LOCAL GOVERNMENT REPRESENTATIVE	II
LOCAL FIRE SERVICES REPRESENTATIVE.....	II
LOCAL FLORIDA FOREST SERVICE REPRESENTATIVE.....	II
U.S. FOREST SERVICE OR DEPARTMENT OF INTERIOR REPRESENTATIVE	II
TABLE OF CONTENTS	III
1. COMMUNITY BACKGROUND AND EXISTING SITUATION	1
DESCRIPTION OF COMMUNITY	1
WILDFIRE PROBLEM STATEMENT.....	3
2. PLANNING PROCESS	4
3. GOALS AND OBJECTIVES.....	5
WILDFIRE VULNERABILITY OVERVIEW	12
WILDFIRE HISTORY	18
4. LOCAL CAPACITY AND CURRENT WILDFIRE PROTECTION ACTIVITIES	20
EXECUTIVE ORDERS DECLARING STATE OF LOCAL EMERGENCY	20
ORGANIZATIONS AND RESOURCES	20
WILDLAND FUEL MANAGEMENT CAPABILITIES	26
EXPERIENCE IMPLEMENTING WILDFIRE PROTECTION PROGRAMS.....	30
5. IMPLEMENTATION AND PLAN MAINTENANCE	31
POTENTIAL FUNDING SOURCES	31
PLAN MAINTENANCE AND EVALUATION.....	31
6. ACTION PLAN	32
WILDLAND FUEL MANAGEMENT	32
COMMUNITY OUTREACH AND EDUCATION	33
FIREWISE BUILDING RETROFIT AND LANDSCAPING.....	34
POLICY AND REGULATION RECOMMENDATIONS.....	35
WILDLAND FIRE RESPONSE IMPROVEMENTS.....	35
APPENDIX A: WILDFIRE VULNERABILITY ASSESSMENT MAPS AND METHODOLOGY, AND PRESCRIBED BURN AREAS	36
WILDFIRE VULNERABILITY ASSESSMENT GENERAL METHODOLOGY	36
METHODS.....	ERROR! BOOKMARK NOT DEFINED.
POPULATION SUMMARY METHODS	ERROR! BOOKMARK NOT DEFINED.
STRUCTURE SUMMARY METHODS	ERROR! BOOKMARK NOT DEFINED.
WILDFIRE RISK ACREAGE SUMMARY METHODS.....	ERROR! BOOKMARK NOT DEFINED.

1. 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 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 an urban-interface community, which has both multi-story commercial buildings and rural farm land. In fact, FireWise Communities estimate approximately 1/3 of all Floridians live in a wildland interface environment. A majority of Seminole County's wildfire 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 called Yankee Lake. However, the threat of wildfire can loom over practically any community that is integrated into the rural setting.

It is well known that wildfire can have a devastating effect on the inhabitants and their homes; however, wildfire 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 Seminole County Fire Department, the Florida Division of Forestry, Seminole County Natural Lands, Seminole County Environmental Services all actively collaborate together to reduce the wildfire risk in Seminole County.

According to the latest Florida Wildland Fire Risk Assessment System analysis, nearly 40 percent of property is located in a moderate to high wildfire risk area. With experience, training, and resources the County is able to implement wildfire reduction measures. It will be necessary to maintain or enhance these skills and abilities with continued funding and support for equipment, training, and public outreach.

Community Statistics

Total Land Area

Seminole County has 308.20 square miles of land and 36.67 square miles of water.

Demographics

The population estimate provided by the U.S. Census as of April 2010 was 436,041 countywide for 2013. 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. 2010 Population Estimates and Housing Unit Occupancy

Current Population and Housing by Jurisdiction	2010 Population	Housing Units		
		Total	Occupied	Vacant
Seminole-Unincorporated	207,308	86,270	79,233	7,037
Altamonte Springs	41,496	22,088	19,126	2,962
Casselberry	26,241	12,708	11,430	1,278
Lake Mary	13,822	5,728	5,329	399
Longwood	13,657	5,680	5,244	436
Oviedo	33,342	11,720	11,125	595
Sanford	53,570	23,061	20,118	2,943
Winter Springs	33,282	14,052	13,101	951
County Totals	422,718	181,307	164,706	16,601

Source: US Census Bureau, American FactFinder, DP-1 - Profile of General Population and Housing Characteristics: 2010, <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

Table 2. Population Estimates from 2015 to 2030

Projected Population by Jurisdiction (1)	2015	2020	2025	2030
Seminole-Unincorporated	218,579	225,397	240,914	222,969
Altamonte Springs	43,752	57,709	58,154	93,852
Casselberry	27,668	33,202	34,754	40,494
Lake Mary	14,573	14,966	16,203	12,642
Longwood	14,400	14,840	15,945	13,815
Oviedo	35,155	30,621	33,826	18,853
Sanford	56,483	60,251	61,170	93,250
Winter Springs	35,092	36,714	39,835	30,133
Totals	445,701	473,700	500,801	526,007

Source: Florida Statistical abstract 2010, Bureau of Economic and Business Research (BEBR), UF, Table 1.41, pg 45, Population Projections

(1) Totals only from BEBR. City populations projected based on 2010 Census percentage of total County population.

Wildfire Problem Statement

Wildfire is a natural phenomenon that involves uncontrolled fire in wilderness areas. Florida experiences 5,500 wildfires each year that burns approximately 218,000 acres. Wildfire can cause damage to property and human life. During times of drought, wildfires can become extremely dangerous.

Homes are especially susceptible to the dangers of wildfire 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 wildfires. The interruption of the wildfire occurrence causes fuels to accumulate. When wildfires do occur, losses to homes and communities are intensified.

Causes of wildfires 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 wildfires behave. Grassland, woodlands, brushland, scrubland, peatland, and other wooded areas are potential sources of fuel. In fact, there are four classifications of wildfires 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.

According to the LMS, Seminole County is susceptible to wildfires throughout the year, particularly during the months with minimal rainfall amounts. The major cause of brush 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. In recent years, homes and businesses have been threatened by encroaching wildfires. There are multiple ways to combat wildfires including but not limited to public education and outreach, prevention, detection, and suppression.



2. 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 wildfire and residents. A kickoff meeting was held on July 18, 2014 for all agencies participating in the project. An additional meeting was held on August 20, 2014. The following individuals participated in the planning process and provided input in the preparation of this CWPP.

Table 3. CWPP Working Group Members

Representative	Name	Title/Department	Phone	Email Address
DOF Local Representative	Cliff Frazier	Wildfire Mitigation Specialist/Florida Division of Forestry	407-637-6592	Clifford.Frazier@freshfromflorida.com
DOF Local Representative	Eugene McDowell	Forest Area Supervisor/ Florida Fire Service	407-971-3502	Eugene.mcdowell@freshfromflorida.com
Emergency Management Representative	Alan Harris	Emergency Manager/Seminole County Office of Emergency Management	407-665-5017	aharris@seminolecountyfl.gov
Emergency Management Representative	Steven Lerner	Mitigation-Recovery Coordinator/ Seminole County Office of Emergency Management	407-665-1012	slerner@seminolecountyfl.gov
Fire Services Representative	Tim Ippolito	Fire Marshal/ Casselberry Fire Department	407-262-7735 x1213	tippoloto@casselberry.org
Fire Services Representative	Kevin Beavers	Firefighter/ Seminole County EMS/Fire/Rescue	321-377-8317	kbeavers@seminolecountyfl.gov
Fire Services Representative	Jeffery Ward	DC Operations/ Seminole County EMS/Fire/Rescue	407-665-2684	jward@seminolecountyfl.gov
Fire Service Representative	Toby Palmer	Battalion Chief/ Lake Mary Fire Department	407-585-1478	tpalmer@lakemaryfl.com
Fire Services Representative	Robert Beck	Division Chief/ Seminole County Fire Department	407-665-5185	rbeck@seminolecountyfl.gov
Fire Services Representative	Ronnie McNeil	Deputy Chief/ Sanford Fire Department	407-688-5040	ronnie.mcneil@sanfordfl.gov
Growth Management Representative	Tony Matthews	Principle Planner Seminole County Growth Management	407-665-7936	tmatthews@seminolecountyfl.gov
Land Manager	Jim Duby	Program Manager/Seminole County Natural Lands	407-349-0769	jduby@seminolecountyfl.gov
Building Official Representative	Tony Apfelbeck	Fire Marshal/ Building Official	407-571-8433	ACApfelbeck@altamonte.org
Law Enforcement Representative	William "Bill" Litton	EM Coordinator/ Seminole County Sheriff's Office	407-665-5187	wlitton@seminoloesheriff.org

3. Goals and Objectives

Goal 1 – Identify, develop, implement, and reduce hazard vulnerability through effective wildfire related mitigation programs.

Objective 1.1 – Identify hazards, risk areas and vulnerabilities in the community using historic and scientific data.

Action Items	Responsible Agency	Completion Date
Revise the wildfire vulnerability assessment to include critical facilities and key resources	Seminole OEM	Dec- 2015
Review new community developments for wild land interface issues	County and Municipal FD	Dec- 2015
Maintain a database to track prescribed burns and map progress	County FD	Dec- 2015
Use GIS to identify risk hazard areas for urban/wild land interface and include in CWPP	County FD	Dec- 2015

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	Completion Date
Develop a Rural Water Supply Plan for locations (Alternative Water Supply, New Development Water Supply, Portable Tanks)	County FD	Dec- 2015
Develop list of mitigation efforts conducted on an annual basis – develop after action / improvement plan on these efforts	County and Natural Lands	Dec- 2015
Conduct after action / improvement plan for any large wildfire that damages a structure	County FD and Seminole OEM	Dec- 2015

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	Completion Date
Develop gap analysis for wild land firefighting apparatus	County FD	Dec- 2015
Develop a gap analysis for prevention resources	County and Natural Lands	Dec- 2015

Objective 1.4 – Reduce resource gap addressed in Objective 1.3

Action Items	Responsible Agency	Completion Date
Budget for new apparatus or equipment	County FD	Dec- 2015
Develop prevention tactics and programs	County and Natural Lands	Dec- 2015
Seek mitigation funding for wildfire prevention	County FD	Dec- 2015
Ensure the sustainment of current equipment and that it is part of the annual budgeting process	County and Municipal FD	Dec- 2015

Objective 1.5 – Apply wildfire mitigation best practices and lessons learned, as available.

Action Items	Responsible Agency	Completion Date
Monitor and track best practices and lessons learned from wildfires across the State	Florida Forest Service	Dec- 2015
Conduct an annual workshop on wild land operations	County FD and Seminole OEM	Dec- 2015
Develop wildfire mitigation task force to review and implement best practices	County FD	Dec- 2015

Goal 2 – Continue to foster interagency relationships to mitigate wildfire 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	Completion Date
Annually review interagency agreements	County FD	Dec- 2015

Objective 2.2 – Coordinate and foster partnerships between local, state, and federal agencies to reduce wildfire risk.

Action Items	Responsible Agency	Completion Date
Annually conduct prescribed burn planning meeting	Florida Forest Service, Natural Lands, County FD	Dec- 2015

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	Completion Date
Conduct wildfire training for all jurisdictions and agencies in Seminole County on an annual basis	County FD	Dec- 2015
Conduct annual wildfire command exercise with multi-agency participation	Seminole OEM	Dec- 2015

Goal 3 – Utilize education to increase public and private sector awareness and support for wildfire hazard mitigation in Seminole County.

Objective 3.1–Utilize outreach efforts, to expand community awareness of wildfire hazard and strategies that can be utilized to improve community safety.

Action Items	Responsible Agency	Completion Date
Produce a Public Service Announcement on SGTV that promotes wildfire prevention	County FD	Dec- 2015
Promote wildfire prevention through Social Media during high activity months	County FD	Dec- 2015

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 wildfire hazard mitigation.

Action Items	Responsible Agency	Completion Date
Provide wildfire mitigation educational material to residents of wild land urban interface communities	Florida Forest Service and County FD	Dec- 2015

Objective 3.3 – Educate the public on current emergency warning systems.

Action Items	Responsible Agency	Completion Date
Actively promote Reverse 9-1-1 and Alert Seminole networks	Seminole OEM	Dec- 2015

Goal 4 – Strive to reduce Seminole County’s wildfire 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 wildfire.

Action Items	Responsible Agency	Completion Date
Review risk assessment and identify critical infrastructures in high risk areas	Seminole OEM	Dec- 2015

Objective 4.2–Implement wild land mitigation tactics to protect critical infrastructure

Action Items	Responsible Agency	Completion Date
Perform prescribed burns and develop wildfire breaks near and around critical infrastructures	Natural Lands and County FD	Dec- 2015

Goal 5 – Protect Seminole County’s cultural, economic and natural resources from wildfire hazards.

Objective 5.1 – Support mitigation initiatives and policies that protect the County’s cultural, economic, and natural resources.

Action Items	Responsible Agency	Completion Date
Develop policies and procedures for protecting natural lands, such as prescribed burning and other appropriate fuel management techniques	Natural Lands	Dec- 2015

Goal 6 - Develop policies and regulations to support effective hazard mitigation programming throughout the community.

Objective 6.1 – Leverage state and federal grant funding to facilitate buyouts, elevations and other mitigation efforts.

Action Items	Responsible Agency	Completion Date
Monitor call frequency to strengthen resource / equipment allocation	County FD	Dec- 2015
Track number of wildfires in a specific community to identify personnel needs during peak wildfire times	County FD	Dec- 2015
Develop system status management program to increase or decrease wildfire staffing based on threat	County FD	Dec- 2015

Objective 6.2 – Target repetitive loss properties for implementation of mitigation projects.

Action Items	Responsible Agency	Completion Date
Develop ordinance to encourage developers to create wildfire breaks in high risk areas	County FD	Dec- 2015

Objective 6.3 – Address building and land development codes to reduce the risk of wildfire.

Action Items	Responsible Agency	Completion Date
Develop ordinance/rule to reduce the risk of wildfire	Planning and Development	Dec- 2015

Objective 6.4– Locate new local government facilities outside of high-risk wildfire hazard areas.

Action Items	Responsible Agency	Completion Date
Assure comprehensive plan addresses locating government buildings outside high risk areas management techniques	Seminole County Building/Planning	Dec- 2015

Objective 6.5 – Establish and enforce regulations to ensure public and private property maintenance is consistent with minimizing vulnerabilities to wildfire hazards.

Action Items	Responsible Agency	Completion Date
Enforce Fire Prevention Code and Florida Building Code provisions that address wildfire hazard mitigation and prevention	Local Fire Prevention/Building Departments	Dec- 2015
Enforce Fire Prevention Code provisions that address water supply in the wild land urban interface	Local Fire Prevention	Dec- 2015

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	Completion Date
Encourage Continuity Planning with small businesses	Seminole OEM	Dec- 2015
Participate and actively encourage emergency management planning for business in urban / wild land interface	Seminole OEM	Dec- 2015

Objective 7.2 – Address the post disaster economic recovery for brush fires that cause damage to the agriculture or horticulture communities.

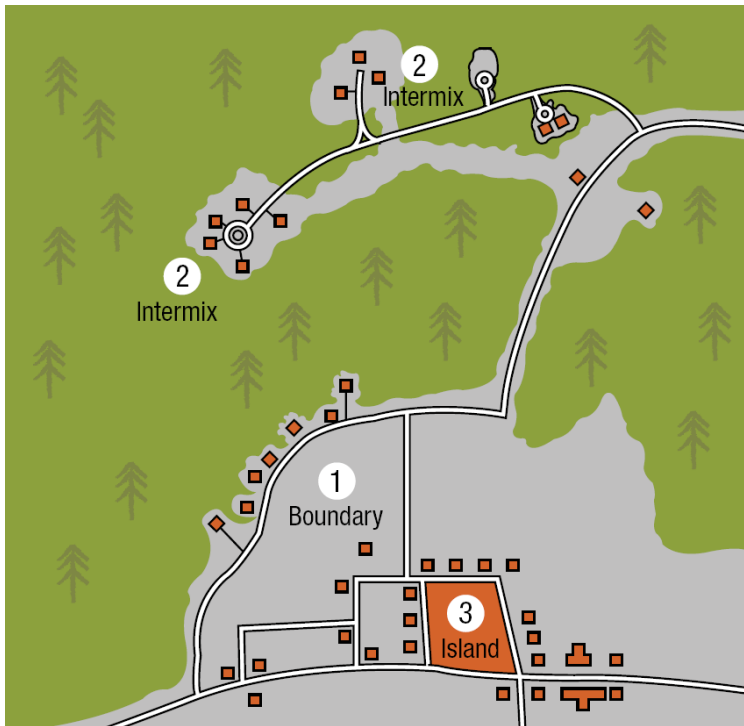
Action Items	Responsible Agency	Completion Date
Conduct wildfire education / economic stabilization programs to agriculture / horticulture community	Seminole OEM and Extension office	Dec- 2015

Wildfire Vulnerability Overview

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

Explanation of Risk

Seminole County is vulnerable to various impacts from wildfires. Losses are caused to property, businesses and agriculture. Costs are expended for law enforcement, traffic control, fire/rescue operations, and potentially for mass care, public health, animal relocation, and infrastructure damage. In order to protect Seminole County from losses and expenditures due to wildfires, there must be an understanding of what areas in the county are at risk.

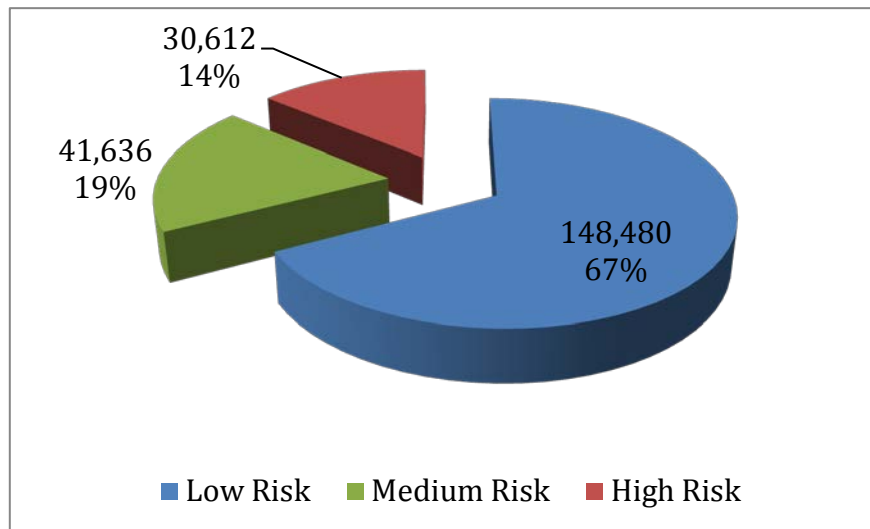
The Southern Wildfire Risk Assessment published by the Southern Group of State Foresters, Florida Division of Forestry and other state agencies define risk as “the expected value change as a result of a wildfire”. The two components that measure risk are the probability of a wildfire occurring and the financial or ecological value of an area.

A community located in an urban/suburban area with no surrounding wildland is considered to be at a low risk for wildfire. If a community is located within the Wildland Urban Interface (WUI), then it can be described as

either a medium or high-risk area. Boundary areas in the WUI which are adjacent, but not surrounded by wildland are considered to be at medium risk. A high-risk area is a community which is scattered or interspersed in an intermixed WUI.

Figure 1 shows the total acres in Seminole County defined by wildfire risk. Just over 72,000 acres are located in medium to high-risk areas. Acres located in medium risk areas account for 19 percent of Seminole County and 14 percent are in high-risk areas.

Figure 1. Countywide Total Acres by Wildfire Risk



The population at risk for wildfire is shown in **Figure 2**. A quarter of the population resides in medium risk areas and 11 percent more in high-risk areas. In total, approximately 165,000 people reside in medium to high wildfire risk areas.

Figure 2. Countywide Total Population by Wildfire Risk

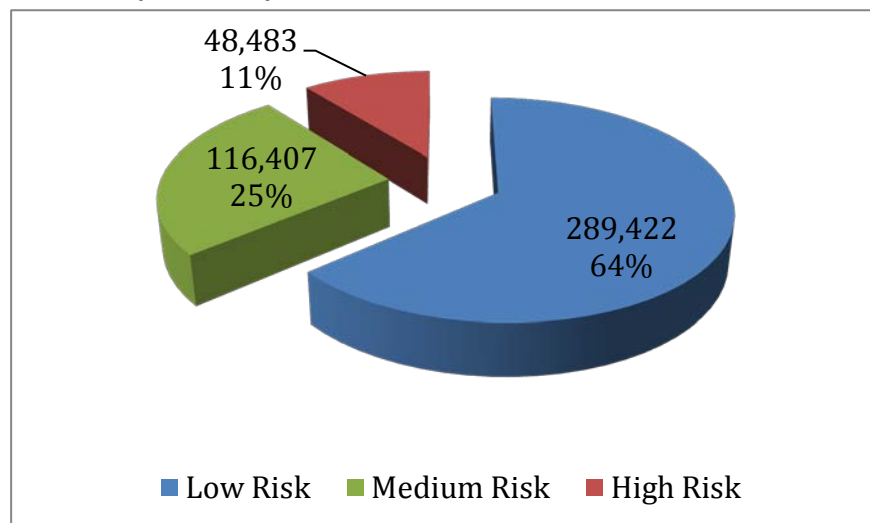
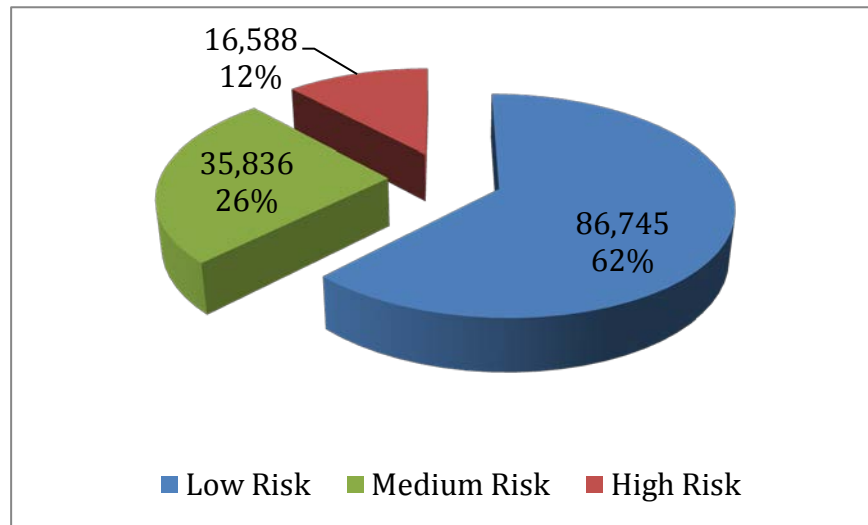


Figure 3 shows the distribution of structures throughout the county by wildfire risk. Approximately 38 percent of structures are located in a medium or high wildfire risk area.

Figure 3. Countywide Total Structures by Wildfire Risk



The data in **Table 4** describes the number and types of structures based on land use classifications with respect to low, medium and high levels of risk. There are 14,669 single-family, 320 multi-family and 515 mobile homes in high-risk wildfire areas. There are also 91 agricultural, 457 commercial, 292 institutional/governmental, and 240 industrial properties in high-risk wildfire areas.

Table 4. Numbers and Types of Structures at Risk

Risk	No. Structures	%	Single Family Residential	Multi-Family Residential	Mobile Homes	Vacant Residential
Low	86,745	62.3%	75,281	3,047	1,468	1
Medium	35,836	25.7%	31,416	1,260	539	2
High	16,588	11.9%	14,669	320	515	0
TOTAL	139,169	100.0%	121,366	4,627	2,522	3

Risk	Agricultural	Commercial	Institutional/ Government	Industrial	Vacant Commercial/ Industrial/ Institutional	Misc/ Undefined
Low	171	3,821	1,277	1,663	10	6
Medium	73	1,421	564	549	9	3
High	91	457	292	240	4	0
TOTAL	335	5,699	2,133	2,452	23	9

The total value of the structures located in low, medium and high areas of risk are shown in **Figure 4**. Over \$4 billion of property is located in high wildfire risk areas.

Figure 4. Countywide Value of Structures (millions) by Wildfire Risk

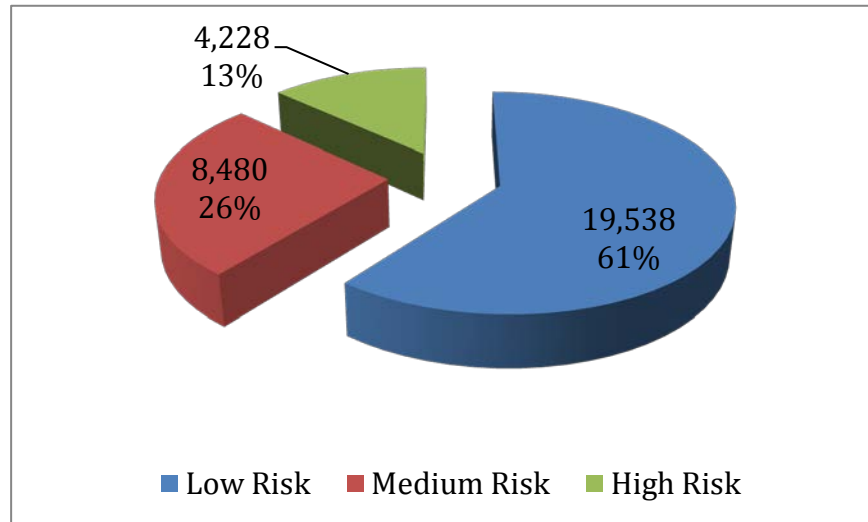


Table 5. Value of Structures Based on Land Use

Risk	Total (Millions)	%	Single Family Residential	Multi-Family Residential	Mobile Homes	Vacant Residential
Low	\$19,540	60.59%	\$12,677	\$1,546	\$77	\$140
Medium	\$8,480	26.30%	\$5,547	\$615	\$34	\$78
High	\$4,228	13.11%	\$2,920	\$171	\$40	\$67
TOTAL	\$32,248	100.00%	\$21,144	\$2,331	\$151	\$285

Risk	Agricultural	Commercial	Institutional/ Government	Industrial	Vacant Commercial/ Industrial/ Institutional	Misc/ Undefined
Low	\$197	\$2,932	\$939	\$689	\$235	\$108
Medium	\$126	\$1,090	\$480	\$251	\$198	\$63
High	\$108	\$382	\$257	\$118	\$102	\$63
TOTAL	\$431	\$4,404	\$1,675	\$1,058	\$535	\$235

Communities in High Risk in Seminole County

Geneva: Was designated a high risk based on the wildland/urban interface. Geneva is a rural community with densely populated areas adjacent to wild lands. In 1998, the community of Geneva experienced a devastating brush fire that damaged and/or destroyed many homes.

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.

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 wildfire, 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.

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.

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 wildfire 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 illustrates the location of critical facilities throughout Seminole County.

[illegible]

Wildfire History

Seminole County, and the State of Florida, has experienced fires on three to five years cycles. While these cycles are primarily major wildfire events, Seminole County is susceptible to wildfires throughout the year, particularly in the months with minimal rainfall amounts. The major source of human caused brush fires and forest fires is due to residents not conforming to burning regulations, considering conditions of fuel, and a lack of understanding of fire weather and wind threats. The spring is the highest period for lightning caused fires fueled by strong spring winds and lack of rainfall during the same period. In recent years, homes and businesses have been threatened by encroaching wildfires.

In recorded history, Florida's fires received national media attention in the 1920s, which led to the creation of the Florida Division of Forestry. 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 wildfire 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 wildfire was extreme. Over 1.1 million dollars was paid out for emergency services and fire suppression activities during this disaster.

Wildfires continued to be a concern during the La Nina periods of 2000-2001, 2007, and 2008-2009. Research has shown that the cold phase of El Niño - Southern Oscillation (ENSO), known as La Niña, frequently results in more severe wildfire activity following a generally warmer and drier winter in Florida. Research has shown that there is correlation between acreage burned in Florida wildfires 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 wildfire activity is at a peak. While no major wildfires (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 wildfire prevention activities. This included the enhancement of equipment and personnel wildfire response capabilities for Seminole County.

Since 2010, Seminole County has responded as mutual aid support to wildfires 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 6 provides information on the number and causes of wildfires that have historically occurred in Seminole County. Since 2004, the Seminole County Fire Department has kept records of responses to wildfires 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 Brush 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 Brush Fires are captured.

Table 6. Brush Fire Study

<u>Year</u>		ACRES BURNED	LESS THAN ONE ACRE
2013	Number of Incidents for year: 208		
	Cause, other	16	36
	Intentional	9	18
	Unintentional	4	41
	Failure of equipment or heat source	0	4
	Act of nature	7	14
	Cause under investigation	19	8
	Cause undetermined after investigation	1	29
	Year total:	56	150
2012	Number of Incidents for year: 218		
	Cause, other	12	38
	Intentional	6	12
	Unintentional	2	38
	Failure of equipment or heat source	0	7
	Act of nature	15	19
	Cause under investigation	17	12
	Cause undetermined after investigation	2	35
	Year total:	54	161
2011	Number of Incidents for year: 246		
	Cause, other	11	47
	Intentional	4	16
	Unintentional	3	51
	Failure of equipment or heat source	0	7
	Act of nature	23	27
	Cause under investigation	8	16
	Cause undetermined after investigation	0	32
	Year total:	49	196
2010	Number of Incidents for year: 244		
	Cause, other	2	19
	Intentional	1	17
	Unintentional	34	64
	Failure of equipment or heat source	0	7
	Act of nature	48	15
	Cause under investigation	8	5
	Cause undetermined after investigation	3	43
	Year total:	96	170
2009	Number of Incidents for year: 231		
	Cause, other	1	57
	Intentional	3	15
	Unintentional	1	44
	Failure of equipment or heat source	0	11
	Act of nature	3	16
	Cause under investigation	30	10
	Cause undetermined after investigation	2	38
	Year total:	40	191
2008	Number of Incidents for year: 186		
	Cause, other	7	27
	Intentional	0	16
	Unintentional	4	37
	Failure of equipment or heat source	0	5
	Act of nature	3	16
	Cause under investigation	12	13
	Cause undetermined after investigation	10	31
	Year total:	36	145
2007	Number of Incidents for year: 242		
	Cause, other	5	34
	Intentional	2	18
	Unintentional	4	42
	Failure of equipment or heat source	0	6
	Act of nature	357	28
	Cause under investigation	2	7
	Cause undetermined after investigation	17	51
	Year total:	387	186
2006	Number of Incidents for year: 282		
	Cause, other	0	41
	Intentional	1	28
	Unintentional	16	42
	Failure of equipment or heat source	2	3
	Act of nature	29	14
	Cause under investigation	6	10
	Cause undetermined after investigation	2	60
	Year total:	56	198
2005	Number of Incidents for year: 150		
	Cause, other	3	16
	Intentional	0	11
	Unintentional	3	34
	Failure of equipment or heat source	0	4
	Act of nature	2	4
	Cause under investigation	0	7
	Cause undetermined after investigation	4	29
	Year total:	12	105
2004	Number of Incidents for year: 195		
	Cause, other	2	28
	Intentional	1	11
	Unintentional	5	30
	Failure of equipment or heat source	0	6
	Act of nature	22	21
	Cause under investigation	3	6
	Cause undetermined after investigation	4	26
	Year total:	37	128

<u>Year</u>		ACRES BURNED	LESS THAN ONE ACRE
2013-2004			
GRAND TOTALS	Count of Incidents: 2,202	823	1,630

4. Local Capacity and Current Wildfire Protection Activities

Seminole County participates in programs and activities to reduce wildfire hazards. A partnership was created between the Seminole County Fire Department, Natural Lands, Environmental Services, and the Florida Division of Forestry to collaboratively engage in wildfire 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 brush fire, which poses an imminent danger to the residents of Seminole County. Upon that determination, burn ban guidelines may be put into effect for the residents of Seminole County. Dry conditions and a Keetch-Byram Index may warrant such an order. 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, FDOF, and Code Enforcement are empowered to enforce the burn ban order.

Organizations and Resources

Local Emergency Management

The County's emergency management services are the responsibility of Seminole County Office of Emergency Management.

Seminole County Emergency Operations Center

Department of Public Safety
150 Bush Blvd.
Sanford, FL 32773
407-665-5102

Local Disaster Support Agencies

The local disaster support 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.

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

Arson Investigation

There is a directive in place to coordinate local and state efforts for conducting arson investigations for wildland fires. Florida Statute 590 put in place an arson alert program to promote citizen education on forest fires and involvement in apprehending those who are involved in forest arson.

The forestry arson alert program is hereby established within the department. 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.

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.

Table 8 lists the Seminole County Fire Departments, and **Table 9** lists the municipal fire departments.

Table 8. 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 22	7122 Hwy 17-92 S, Casselberry
Station 23	4810 Howell Branch Rd, Winter Park
Station 24	102 Moss Road N, Winter Springs
Station 26	850 Northern Way, Winter Springs
Station 27	5280 Red Bug Lake Rd, Winter Springs
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 9. Fire Stations (Municipalities)

Fire Station	Address
Station 15	301 Warren Ave, Longwood
Station 17	400 Wayman St, Longwood
Station 21	681 Seminola Blvd, Casselberry
Station 25	1055 Red Bug Lake Rd, Casselberry
Station 31	1303 William Clark Avenue, Sanford
Station 32	300 E Airport Blvd., Sanford
Station 33	145 E Crystal Lake Ave, Lake Mary
Station 37	911 Wallace Ct, Lake Mary
Station 38	1300 Central Park Dr, Sanford
Station 44	42 Central Ave S, Oviedo
Station 46	300 Alexandria Blvd, Oviedo
Station 48	1930 W County Rd 419, Oviedo
Station 51	550 Don Knight Lane, Sanford

Florida Division of Forestry

Table 10. FDOF 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 February 2014. Future Land Use Policies (13.1-.2) in the comprehensive plan address wildfire reduction within the Wekiva Study Area. The use of flammable plants adjacent to buildings is discouraged to maintain defensible space and reduce wildfire 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 such a plan. It is called 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 Committee 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 area a 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:

- Wildfire 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 Repetitive Loss Claims (RFC) and the Pre-Disaster Mitigation Grant Program (PDMG) are two of these grants. The RFC funds are used to reduce or eliminate the long-term risk of flood damage to structures that have one or more claims for flood damage. The PDM 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 Work Shops, Door-to-Door Campaigns, and Wildfire Hazard & Risk Assessments, which all encourages local solutions for wildfire safety by involving homeowners, community leaders, planners, developers, firefighters, and others in the effort to protect people and property from the risk of wildfire.

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 Wildfire Engine - 300 gal water tank, 150 gpm pump, 20 gal class A foam tank, in-line foam proportioner, multiple hand line configurations
- Drip Torch with spare fuel
- Assorted hand tools

Station 16 (930 Wekiva Springs Rd, Longwood)

- WD 16 - Type-6 4x4 Wildfire 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

Station 27 (5280 Red Bug Lake Rd, Winter Springs)

- WD 27 - Type-6 4x4 Wildfire 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 Wildfire 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
- Tanker 34 – 3000 gal water tank
- Turbo Draft

Station 35 (201 W County Home Rd, Sanford)

- WD 35 - Type-6 4x4 Wildfire 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 Wildfire Engine 250 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 42 (320 E SR46, Geneva)

- WD 42 - Type-6 4x4 Wildfire 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
- All Terrain Vehicle (ATV)
- 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 wildfires 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 Wildfire 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

The FDOF has 2 dozers (550) and 1 dozer (850).

Wildland Fuel Management Capabilities

Tables 11 and **12** are representative samples of fuel management projects and fuel reduction measures.

Appendix A includes maps for current and proposed prescribed burn areas.

For the past nine years, the county has engaged in fuel management projects, as listed in **Table 11**.

Table 11. Fuel Management Projects in Seminole County

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
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

Chart updated up until 4/3/14

Table 12 lists the prescribed burns that have occurred in Seminole County by burn unit, date and acreage. Prescribed burns help reduce the risk of wildfire.

Table 12. Prescribed Burns in Seminole County

Property (Landfills)	Date Burned	Acres
BU-1A	(1998 WF) (11/12/2013)	15
BU-1B	(1998 WF) (2009 WF)	10
BU-1C	(1998 WF) (05/24/2010)	12
BU-1D	(1998 WF) (2008 WF)	15
BU-1E	(1998 WF) (2008 WF)	22
BU-1F	1998 WF	60
BU-2A	2009 WF	9
BU-3A2	(1998 WF) (12/04/2008) (01/26/2010)	3-9
BU-3B	(1998 WF) (11/12/2009) (12/19/2012)	24
BU-3C	(1998 WF) (12/17/2007)	14
BU-3D	(1998 WF) (11/15/2007)	28
BU-3E	(1998 WF) (11/6/2007) (02/16/2011)	8-15
BU-3F	(1998 WF) (02/05/2008) (02/12/2011)	10
BU-3G	1998 WF	7
BU-3H	(1998 WF) (02/19/2014)	49
BU-3I	(1998 WF) (02/19/2014)	53
BU-3J	(1998 WF) (1/26/2010)	72
BU-3M	(1998 WF) (04/04/2014)	30
BU-3N	(1998 WF) (01/11/2013)	59
BU-3R	(1998 WF) (12/15/2011)	8
BU-4B	(1998 WF) (1/29/2010)	14
BU-4C	(1998 WF) (01/28/2008) (11/22/2011)	16
BU-4D	(1998 WF) (11/14/2011)	30
BU-4E	5/20/2010	15
BU-4I	(11/09/2012) (04/29/2013)	42

*WF=Wildfire

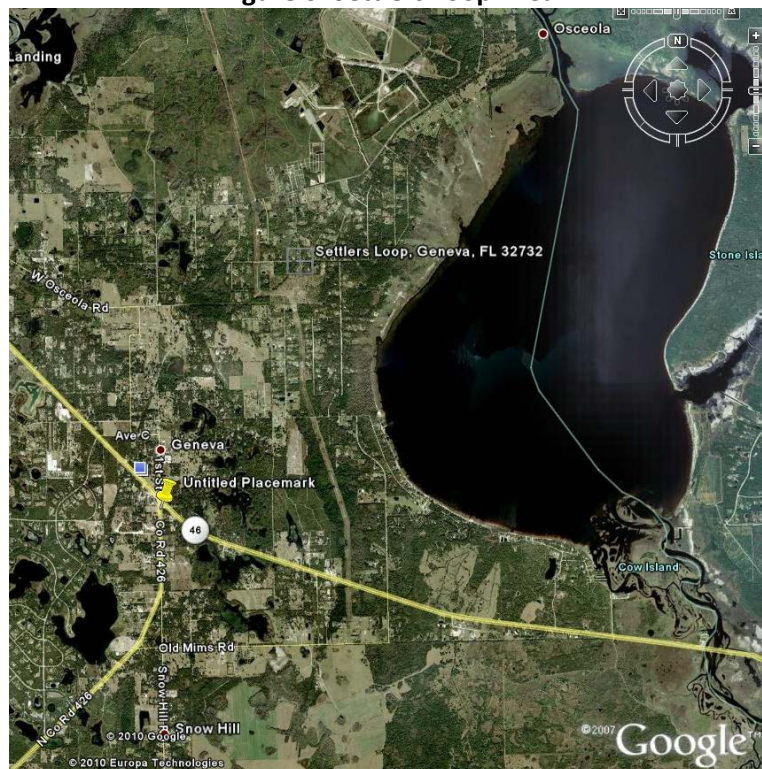
Fuel management and prescribed burns are reliant on having appropriate equipment and resources.

Experience Implementing Wildfire Protection Programs

In addition to fuels management and prescribed burns, Seminole County provides ongoing outreach and education on wildfire prevention, risk reduction and safety measures. The SCFD, the Florida Department of Forestry, 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 Wildfire Prevention Campaign, Seminole County Firefighters, Forestry Officials, and Natural Lands Managers worked to jointly conduct the wildfire assessments on each home in the Geneva community. The purpose of the assessments is to minimize a home's risk to the dangers of wildfire. 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 wildfire.

After conducting property assessments, the SCFD left a door hanger for the homeowner that explained their wildfire risks and mitigation measures to reduce the risks. The Settlers Loop Area is shown on the map in **Figures 6 and 7**.

Figure 6. Settlers Loop Area



[illegible]

The CWPP is to be implemented as resources become available to incrementally mitigate community wildfire 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 wildfire 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.

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 wildfire mitigation and response improvements are available in the Florida State Hazard Mitigation Plan in the Wildfire Mitigation Annex.

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 FDOF 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 ii**).

6. Action Plan

This section describes implementation strategies or actions that will advance the goals and objectives of this CWPP. The actions are organized by mitigation category: 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 following action recommendations are listed in priority order within each mitigation category based upon the ability to most significantly decrease wildfire vulnerability in the community. Detailed information for high priority actions, including participating agencies and evaluation criteria, can be found in **Appendix B**.

Wildland Fuel Management

Fuel management projects help reduce the size and intensity of wildland fires and may also decrease the likelihood that a wildfire 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 wildfire 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 wildfire risk.



Table 13. Wildland Fuel Management Actions

Action	Lead Agency	Timeframe	Potential Funding
Continue to collaboratively draft an annual fuel management plan with specific projects prioritized and paired with available agency funding	FDOF with assistance from LMS working group	Annually	Not needed
Revise the wildfire vulnerability assessment to include critical facilities and key resources.	LMS working group	Annually	Determined annually
Ensure the sustainment of current equipment and that it is part of the annual budgeting process.	Each agency	Ongoing	Determined annually
Create a database to track prescribed burns and map progress of fuel land management activities.	All land management agencies	Ongoing	Determined annually
Determine annually if additional agency capacity, equipment, or contractor funding is needed to meet fuel management goals.	All land management agencies	Annually	Determined annually
Encourage the removal of vegetation from high wildfire risk areas.	Authority that has jurisdiction	Ongoing	Determined annually
Continue with fuel reduction along strategic corridors in community.	Authority that has jurisdiction	Ongoing	Determined annually
Encourage the reduction of fuel loading on vacant and non-vacant lots within 30 feet of structures.	Authority that has jurisdiction	Ongoing	Determined annually
Continue joint efforts to coordinate prescribed burns and fuel reduction measures.	Each agency	Ongoing	Determined annually

Community Outreach and Education

Outreach and education initiatives are designed to raise awareness and improve community knowledge of wildfire 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.

Table 14. Community Outreach and Education Actions

Action	Lead Agency	Timeframe	Potential Funding
Continue community-specific education events and target additional at risk locations to hold these.	FDOF in coordination with authority with jurisdiction	Ongoing	Determined annually
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	Ongoing	Not Needed
Coordinate with School Board to explore feasibility of using the FDOF on-line interactive Wildfire Prevention Program for Grades 4-6.	FDOF	2014-2016	Not needed.
Provide County and municipal fire stations with FireWise education materials.	FDOF	Annually	FDOF will fund
Train members of the county and municipal fire departments as FireWise Community resources of information.	FDOF	2014-2016	Seek federal grant funding
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.	FDOF	Annually	Not needed
Continue to identify other community organizations and events in which wildfire mitigation education could be integrated to utilize existing resources and distribution methods.	LMS Working Group	Annually	Not needed for identification
Deliver a presentation about the CWPP to the LMS working group at one of the quarterly meetings	LMS working group and Emergency Manager	Annually	Not needed

FireWise Building Retrofit and Landscaping

Projects that reduce the ignitability of community facilities and private structures decrease community wildfire 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 wildfire 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.

Table 15. FireWise Building Retrofit and Landscaping Actions

Action	Lead Agency	Timeframe	Potential Funding
Explore methodologies for identifying neighborhoods that need technical assistance to perform wildfire mitigation retrofits.	LMS working group	Ongoing	Explore grant opportunities
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	Ongoing	Determined Annually
Continue to mitigate invasive plant species within existing areas of increased wildfire risk.	Land Management Agencies	Ongoing	Determined annually

Policy and Regulation Recommendations

Updating local government plans, policies, and regulations is another effective way to advance wildfire mitigation goals. By modifying requirements for development, high-risk wildfire zones can be avoided or new development can be proactively designed to reduce wildfire 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 wildfire 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.

Table 16. Wildland Fire Response Improvement Actions

Action	Lead Agency	Timeframe	Potential Funding
Maintain position specific credentials for firefighters and other municipal workers.	SCFD	Ongoing	Grants, as available
Coordinate with planning staff on recommendations for required additional water supplies in rural corridor (i.e. tanks)	SCFD, DEP, SJRWMD	During 2014 EAR and LDC update process	Staff time only.
Establish a County Wildfire Prevention Working Team to focus intervention and prevention activities within county regions	SCFD, FDOF, DEP, SJRWMD and Seminole County Natural Lands.	2014-2015	Not needed

Appendix A: Wildfire Vulnerability Assessment Maps and Methodology, and Prescribed Burn Areas

This Appendix includes the following:

Methodology Summary

Maps

- Seminole County Wildfire Risk (H-M-L)

Wildfire Vulnerability Assessment General Methodology

The general methodology used in the assessment combined wildfire risk outputs, developed as part of the Southern Wildfire Risk Assessment¹ 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:

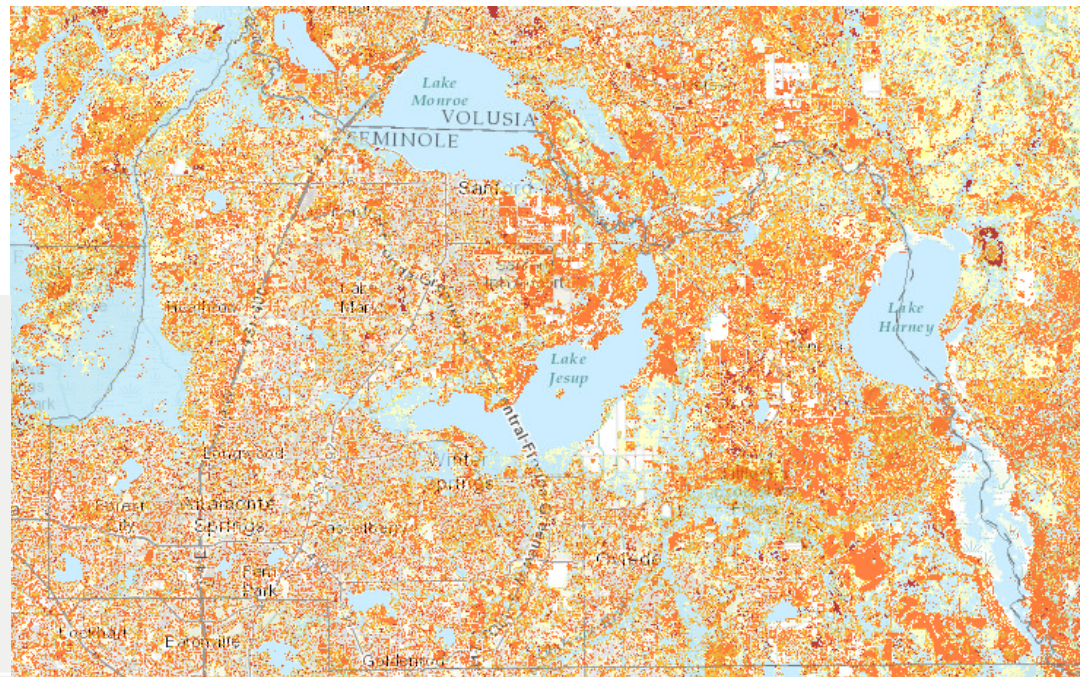
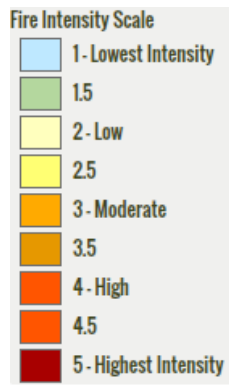
- total population by wildfire risk zone in each county
- total number of structures by wildfire risk zone in each county
- total value (\$) of structures by wildfire risk zone in each county
- total acreage of wildfire risk and surface fuels in each county

Wildfire Risk Assessment

The Southern Wildfire Risk Assessment (SWRA) project and subsequent updates for Florida conducted by the Florida Division of Forestry provide up to date wildfire 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 wildfire 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.

Seminole County Wildfire Risk Assessment

¹ More info on the SWRA is available at www.southernwildfirerisk.com. The Florida Forest Service conducted an update to the SWRA in 2011 using updated fuels and fire occurrence data.



THE ISSUE IS NOT WHETHER AN AREA WILL
BURN



BUT *WHEN* IT WILL BURN