

## Section 3.17: WILDFIRE

### 2014 SHMP Updates

- Characteristics revised
- Vulnerability and Loss data from local plans have been integrated.
- Statistical data and figures were updated.

Wildfire in New York State is based on the same science and environmental factors as any wildfire in the world. The State of New York has large tracts of diverse forest lands, many of which are the result of historic destructive wildfires. Although these destructive fires do not occur on an annual basis, New York State's fire history has a cycle of fire occurrences that result in property loss, forest destruction, air pollution, and death of humans and habitats.

Hazard	Definition and Key Terms
Wildfire	<ul style="list-style-type: none"> <li>• <i>Wildfire</i> – an uncontrolled fire in an area of combustible vegetation that occurs in the country or a wilderness area. They often begin unnoticed and spread quickly and are usually signaled by dense smoke that fills the area for miles around. Naturally occurring and non-native species of grasses, brush, and tree fuel wildfires.</li> <li>• <i>Wildland</i> – a natural environment that has not be significantly modified by human activity.</li> </ul>

### 3.17.1 Wildfire Profile

#### Characteristics

Wildfire is defined as an uncontrolled fire spreading through natural or unnatural vegetation that often has the potential to threaten lives and property if not contained. Wildfires include common terms such as forest fires, brush fires, grass fires, range fire, ground fires or wildland urban interface fires. Wildland urban interface fires burn in or threaten to burn buildings and other structures. Naturally or purposely ignited fires that are controlled for a defined purpose of managing vegetation for one or more benefits are not considered wildfires.

The Department of Environmental Conservation's Division of Forest Protection ("*Forest Ranger Division*") is designated the State's lead agency for wildfire mitigation in the State's Comprehensive Emergency Management Plan. New York State is a "home-rule" state where local emergency services have primary authority for any and all emergencies. In the



case of wildfire, the local fire department has the primary responsibility (incident command) for the control and containment of wildfires in their jurisdiction.

### **Conditions Affecting the Wildfire Hazard**

A combination of available fuel, weather, and topography, work together to determine when a wildfire will ignite, how quickly it will travel, and the fire's intensity. In general, the vulnerable times of the year for wildfire in New York State are from the end of the snow pack until leaf out in the end of August.

**Fuels:** The two basic fuel types in the wildland/urban interface are vegetation and structures.

**Vegetation:** Fuel in its natural form consists of living and dead trees, bushes, and grasses. Typically, grasses burn more quickly and with less intensity than trees. Any branches or shrubs between 18 inches and 6 feet are considered to be ladder fuels. Ladder fuels help convert a ground fire to a crown fire (tree tops) which moves much more quickly.

**Structural Density:** The closer the homes are together, the easier it is for the flames to spread from one structure to another.

**Weather:** High temperatures, low humidity, and swift winds increase the probability of ignitions and difficulty of control. Short and long-term drought further exacerbates the problem.

**Slope:** Slope is the upward or downward incline or slant of terrain. For example, a completely flat plain represents a 0% slope and a hillside that rises 30 feet for every 100 feet horizontal distance represents a 30% slope. Hot gases rise in front of the fire along the slope face, pre-heating the up-slope vegetation, moving a grass fire up to four times faster with flames twice as high as a fire on level ground.



## Monitoring Fuel Conditions

Dead fuel moisture responds solely to ambient environmental conditions and is critical in determining fire potential. Dead fuel moistures are classed by time lag. A fuel's time lag is proportional to its diameter and is loosely defined as the time it takes a fuel particle to reach two-thirds (2/3) of its way to equilibrium with its local environment. Dead fuels fall into four classes:

- *1-h, less than 1/4" diameter:* Fine, flashy fuels that respond quickly to weather changes; computed from observation time temperature, humidity, and cloudiness.
- *10-h, 1/4 to 1" diameter:* Computed from observation time temperature, humidity, and cloudiness; or can be an observed value, from a standard set of "10-Hr Fuel Sticks" that are weighed as part of the fire weather observation.
- *100-h, 1 to 3" diameter:* Computed from 24-hour average boundary condition composed of day length, hours of rain, and daily temperature/humidity ranges.
- *1000-h, 3 to 8" diameter:* Computed from a seven-day average boundary condition composed of day length, hours of rain, and daily temperature/humidity ranges.

## Location

New York State is 30.9 million acres in size with 18.9 million acres of non-federal forested lands. Many areas in New York, particularly those that are heavily forested or contain large tracts of brush and shrubs, are prone to fires. The Adirondacks, Catskills, Hudson Highlands, Shawangunk Ridge, and Long Island Pine Barrens are examples of fire-prone areas.

In addition, there is an undetermined amount of open-space non-forested lands with significant wildfire potential. The wetlands of western New York and lower New York are examples of non-forested lands that can burn as weather conditions allow. These fires are not only spectacular in their intensity but quite often threaten nearby communities, businesses or improvements, becoming wildland-urban interface fires. Smoke and particulate matter from wildfires 500 miles north in Quebec often drifts to the southern tip of the State impacting New York, Bronx, Kings, Queens, Richmond, Nassau and Suffolk counties. Occasionally, the effects of wildfires can cause public officials and the media to initiate dialogue on how fire hazards impact air quality.

The Forest Ranger Division has a statutory requirement to provide a forest fire protection system for 657 of the 932 townships throughout New York. This area excludes cities and villages and covers 23.5 million acres of land including state-owned lands outside the 657 towns. The Lake Ontario Plains and New York City-Long Island areas are the general areas not included in the statutory protection. The Lake Ontario Plains were once New York's most active agricultural lands, but much of the area has reverted to hardwood forests. During some years, the largest and most destructive wildfires occur in the southern portion of the state on Long Island or in New York City. Wildfire occurrences in this area are collected from fire department reports to evaluate any need to expand statutory



responsibilities. Regardless of jurisdiction or location of a wildfire, fire departments and forest rangers have a long history of collaboration to control the most serious wildfires that occur anywhere in the state.

### Previous Wildfire Occurrences

Wildfire occurrence reporting in New York State is based on two data sources; the NYS Forest Ranger Force and NYS Office of Fire Prevention and Control (OFP&C). The NYS Forest Ranger Force has fought fires and retained records for more than 128 years. Over the past 25 years (1988-2012), Division records indicate that rangers suppressed 6,971 wildfires that burned a total of 67,273 acres. This averages 279 fires burning 2,691 acres per year; however, the State does not have a consistent wildfire season. New York State's fire history indicates periods of time when wildfires are much more numerous and destructive than the 25-year average would indicate. 1988, 1989, 1991, 1995, 1998, 1999, 2001 and 2008 were all above average years with 11,730 acres burned in 1989 alone. In 2008, a 2,800 acre wildfire occurred in Minnewaska State Park killing approximately 50% of the old growth forest cover in this very popular and scenic park (DEC, 2013).

New York State encountered its most recent wildfire April 9, 2013 in Suffolk County, burning approximately 1,240 acres in Manorville. Firefighters from about 35 departments battled the fire with 20 brush trucks, 10 tankers, and 10 engines. State fire helicopters dumped water on the flames from above. Flames forced dozens of people to evacuate, three homes were engulfed in flames and six other structures, including one commercial building were damaged or destroyed.

**Table 3.17a: Wildfire Historical Events and Losses 2011-2013**

County	Date	Death	Injured	Property Damage	Crop Damage
Jefferson	7/31/2012	0	0	\$ -	\$ -
Ulster	4/17/2008	0	0	\$ -	\$ -
Albany	7/5/2002	0	0	\$ -	\$ -
Columbia	7/5/2002	0	0	\$ -	\$ -
Dutchess	7/5/2002	0	0	\$ -	\$ -
Greene	7/5/2002	0	0	\$ -	\$ -
Rensselaer	7/5/2002	0	0	\$ -	\$ -
Schenectady	7/5/2002	0	0	\$ -	\$ -
Ulster	7/5/2002	0	0	\$ -	\$ -
Fulton	7/5/2002	0	0	\$ -	\$ -
Hamilton	7/5/2002	0	0	\$ -	\$ -
Montgomery	7/5/2002	0	0	\$ -	\$ -
Herkimer	7/5/2002	0	0	\$ -	\$ -



County	Date	Death	Injured	Property Damage	Crop Damage
Saratoga	7/5/2002	0	0	\$ -	\$ -
Schoharie	7/5/2002	0	0	\$ -	\$ -
Herkimer	7/5/2002	0	0	\$ -	\$ -
Saratoga	7/5/2002	0	0	\$ -	\$ -
Warren	7/5/2002	0	0	\$ -	\$ -
Washington	7/5/2002	0	0	\$ -	\$ -
Albany	7/5/2002	0	0	\$ -	\$ -
Columbia	7/5/2002	0	0	\$ -	\$ -
Dutchess	7/5/2002	0	0	\$ -	\$ -
Greene	7/5/2002	0	0	\$ -	\$ -
Rensselaer	7/5/2002	0	0	\$ -	\$ -
Schenectady	7/5/2002	0	0	\$ -	\$ -
Ulster	7/5/2002	0	0	\$ -	\$ -
Suffolk	5/15/2001	0	2	\$ -	\$ -
Rensselaer	4/19/2001	0	0	\$ 2,000.00	\$ -
Schenectady	4/18/2001	0	0	\$ 5,000.00	\$ -
Washington	4/16/2001	0	0	\$ 95,000.00	\$ -
<b>Totals:</b>		<b>0</b>	<b>2</b>	<b>\$102,000.00</b>	<b>\$ -</b>

Source: NOAA, National Climatic Data Center, 2013

## Historical Wildfire Events in New York State 1903-2013

### Adirondack Fires - Early 1900s

The development of the Adirondacks depended entirely upon the mining, lumbering, and agricultural industries.

Early industry in the region consisted of mining operations and lumber operations. In 1903, the Delaware and Hudson Company, after acquiring the Chateaugay and Lake Placid Railway Company, secured control of the Chateaugay Ore and Iron Company, with the view of increasing the mining and smelting operations at Lyon Mountain and Standish and, subsequently, freight movements on its railroad lines. Shortly after these acquisitions, during the summer and fall of 1903, destructive forest fires burned over approximately three-fourths of the Chateaugay Company's forest. A portion of the acreage, burned clean of timber, was later considered as entirely denuded. The major portion of the burned area was probably affected by serious ground fires, which did not entirely damage the remaining stands of timber, but necessitated placing this timber on an early market.

Forest fires continued burning year after year. These fires, most severe in 1903, 1908, 1911, 1913, and 1915, destroyed practically all timber that was ready for market and



scorched the ground so badly that the humus, needed by the soil to establish another ground-cover of valuable hard and soft woods, was burned down to sand and stones, on which a fire cover of inferior woods began to grow in order to assist nature in enriching the soil cover. The Dock and Coal Company continued cutting in the burned areas from which salvage could be obtained, and from the lands which had not been burned until 1918, when operations ceased as the timber supply was exhausted. There remained only scattered areas of cull hardwoods that had been lumbered once and burned over several times. Other than such hardwoods, nothing remained but undersized swamp balsam and spruce which, because of its location in wet areas, had not been badly burned.

### Sunrise Fires - 1995

August of 1995 will be remembered as a record breaker for the residents of New York and Long Island. Residents suffered through at least 22 consecutive days without measurable precipitation, with only 0.44 inches reported for the entire month at Brookhaven National Weather Service Forecast Office. This drought had been developing throughout the year (see Drought History); with year-to-date precipitation on Long Island reported to be 11.45 inches below normal (18.85 inches compared to a normal of 30.30 inches). Unusual heat accompanied this unpredicted drought for the entire month of August. Long Island was so parched that by August lawns crackled underfoot like hay for harvest and the woods were dry as kindling. Daily mean temperatures were averaging 3.2 degrees above normal for the month. These weather conditions were conducive to extreme fire behavior. The extreme drought and heat conditions caused dead fuel moisture to reach dangerously low levels and live fuel moisture was approaching end of winter levels.

From August 21, 1995 at 11:00 am to September 4, 1995 at 6:00 pm, four wildfires constituting the "Sunrise Fire Complex" burned more than 7,000 acres of brush and forest land in Suffolk County. The fires forming the Sunrise complex included: the Rocky Point, Sunrise, Medford, and Calverton fires, (Figure 3-117).



*Newsday Photo/Bill Davis: Sunrise Highway in August, 1995*

The initial ignition at Rocky Point was detected at approximately 11:00 am, Monday, August 21, 1995. It was quickly attacked and contained shortly thereafter. At approximately 12:00 pm, a second start was detected and attacked by forces still on the scene. The fire quickly escaped control and burned 1800 acres by the evening of August 22, 1995.



On Thursday, August 24, 1995, a second major fire, named the Sunrise Fire (after the interstate it closed down), was ignited in the vicinity of the Suffolk County Community College East Campus, just east of Speonk-Riverhead Road. It was initially attacked by the Eastport Fire Department, but due to extreme fire conditions, quickly escaped control. By Friday afternoon, it had grown to 5,050 acres, damaged or destroyed three structures in the vicinity of the Westhampton Train Station, and brought a mobilization of firefighters never before seen on Long Island.

All incidents of the Complex occurred in the “pine barrens” that dominate the undeveloped portions of Long Island. These areas are dominated by Pitch Pine and a variety of oaks, with an understory of pine, oak, sweet fern, blueberry and grasses, and a thin layer of litter and duff. Successful fire suppression over many years allowed these Pine Barrens to develop dense overstory and understory layers.

The fire complex was the worst to hit the State and the first ever on Long Island. It was also the first major fire in the Wildland/Urban Interface (WUI) in New York State. A large population and a number of structures were at high risk.

The threat from the fires was so great that Governor George E. Pataki requested, and President Clinton approved, a Fire Suppression Assistance Declaration for the impacted area. The declaration was received on August 24, 1995 and various federal resources were provided to help bring the fire under control and extinguish it. Mr. Jim Lyons, United States Undersecretary of Agriculture was assigned to directly manage the federal firefighting effort. Additionally, certain eligible costs incurred by State and Local agencies in the effort were reimbursed.

At the height of the event, hundreds of Local fire companies and scores of State and Federal agencies were involved in suppressing the fires. The United States Forest Service provided comprehensive firefighting assistance, including all necessary equipment and teams of experts. This extraordinary effort by a multi-governmental partnership was a major factor in the successful suppression of these major fires with minimum property losses and without loss of life.

### **Adirondack Fires – 2002**

New York Department of Environmental Conservation (DEC) Forest Rangers, along with the State Police Aviation Unit, Department of Correction Services inmate crews, and Local volunteer fire departments fought more than 36 active forest fires, encompassing more than 320 acres in the Adirondack Mountains during August of 2002. Dry summer conditions made forest fires easy to start, and when coupled with the gusty winds, the fires spread quickly. Certain regions of the Adirondacks received less than two inches of rain in July and less than one inch in the month of August.



DEC banned campfires on all State Forest Preserve lands in the Adirondack Park, except DEC campgrounds. In addition, to prevent additional human-caused wildfires, the DEC suspended all burn permits issued by the Agency in the counties comprising DEC Region's 5 and 6, which include Clinton, Essex, Franklin, Hamilton, Fulton, Saratoga, Warren, Washington, St. Lawrence, Jefferson, Lewis, Herkimer, and Oneida counties.

While the majority of the fires were caused by lightning strikes, unattended campfires were the cause of at least twelve of the fires in the month of August.

The majority (28), and largest (6 fires ranging from 4 to 75 acres in size), of the fires were located in Essex (15) and Warren (13) Counties. Fires also burned in Clinton, Hamilton, Lewis, Saratoga, and Washington Counties.

**The six largest fires were:**

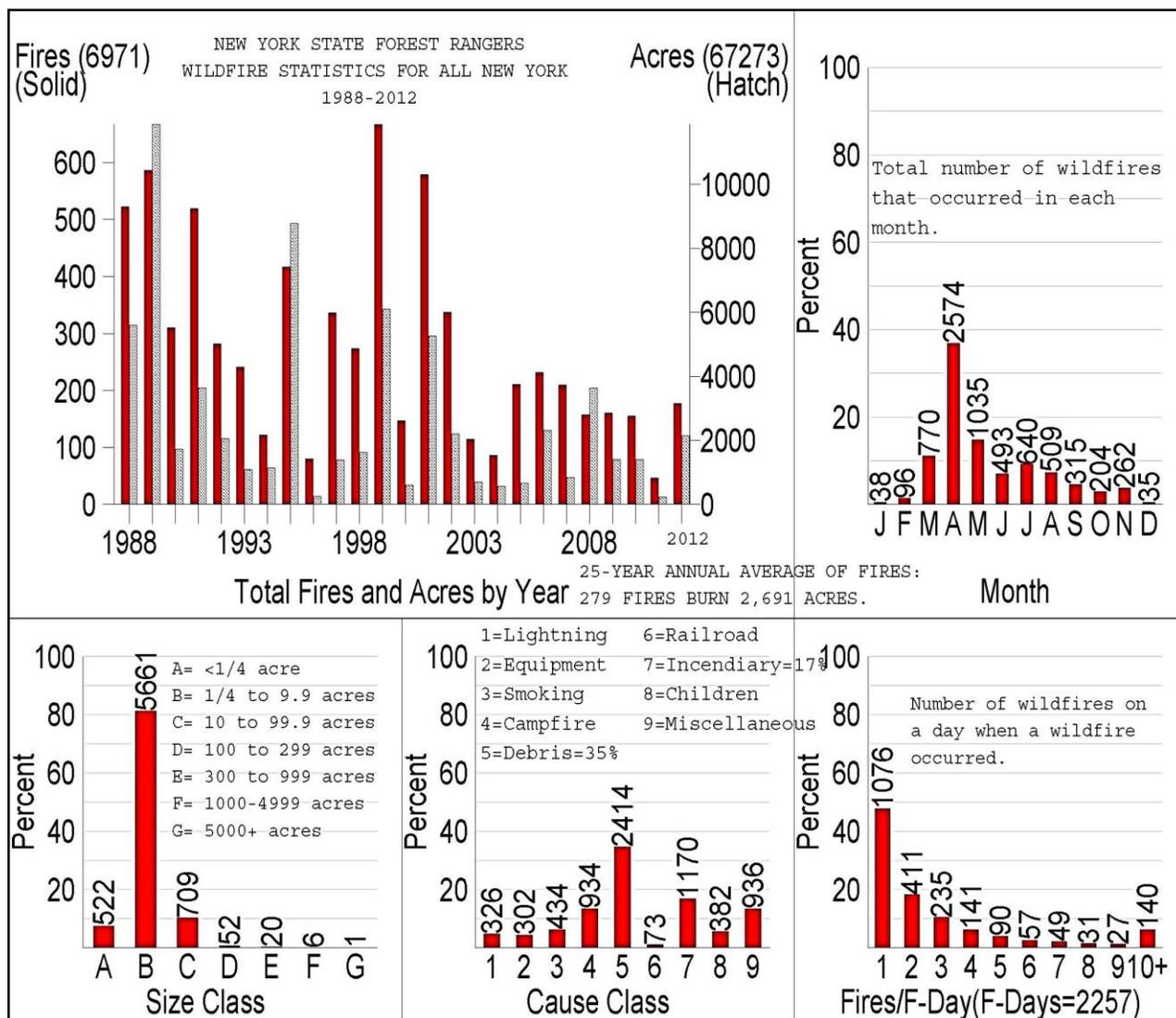
- 75 acres on Huckleberry Mountain, Town of Johnsbury, Warren County;
- 45 acre Gooseneck Fire, Town of Ticonderoga, Essex County;
- 25 acre Ridge Fire on Hail Mountain, Town of Crown Point, Essex County;
- 8 acres on Whiteface Mountain, Town of Wilmington, Essex County;
- 7 acre fire on Hail Mountain, Town of Crown Point, Essex County;
- 4 acres on Beach Mountain, Town of Bolton, Warren County

**Cherrytown Fire – 2006**

The Cherrytown Fire started on April 30, 2006 in the Catskill Park, outside the town of Rochester. The fire consumed 933 acres near the Vernooey Falls Ridge in the Catskill State Park. The Cherrytown Fire was the largest wildfire since 2002. The fire was fought by a dozen Ulster County fire teams led by the Accord Fire Department Firefighters. Firefighters from Orange County and three volunteer departments from Sullivan County also assisted in the fire effort. Two inmate crews, State Department of Environmental Conservation forest rangers and fire teams from two local nature preserves also offered their assistance. The fire was officially extinguished on May 12, 2006.



Figure 3-17a shows the Forest Ranger Division Wildfire occurrence statistics from 1988 through 2012.

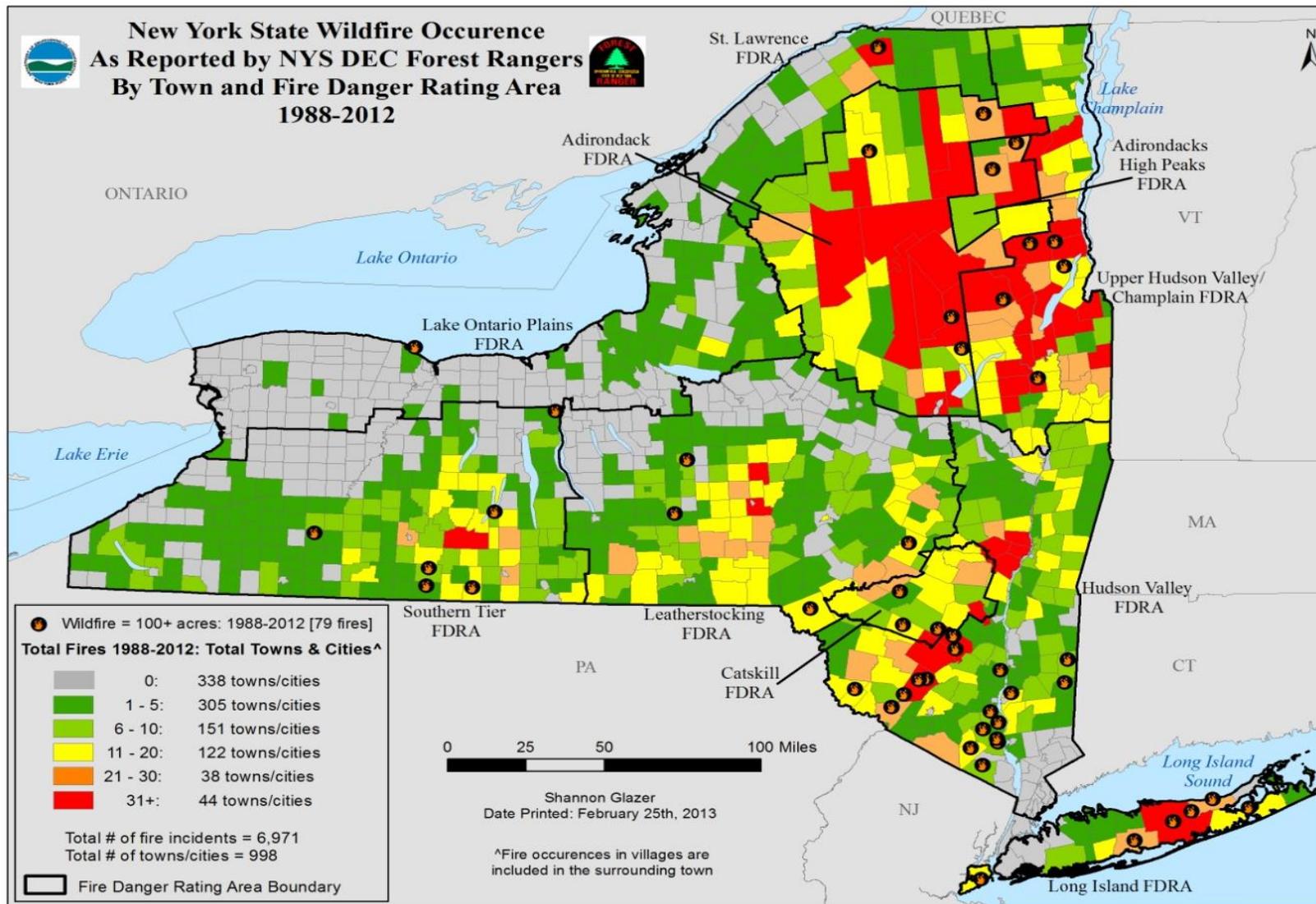


Source: New York State Department of Environmental Conservation Forest Rangers

In addition to Forest Rangers documenting wildfire occurrence, New York’s 1,700 fire departments do the same but in a significantly different format. Data collected by the NYS Office of Fire Prevention and Control (OFP&C) indicates that from 2002 through 2012, fire departments throughout New York responded to 64,208 wildfires, brush fires, grass fires or other outdoor fires (all natural vegetation fires). Approximately 4,900 fires were reported from 2005-2010; 7,698 fires occurred in 2005 alone. Fire department data for 2000 through 2012 has been incorporated into the Department’s geographical information system (GIS) and several statistical occurrence maps and graphs have been produced. Fire departments do not report fire size, but damage assessments may be determined from the data with further GIS applications.



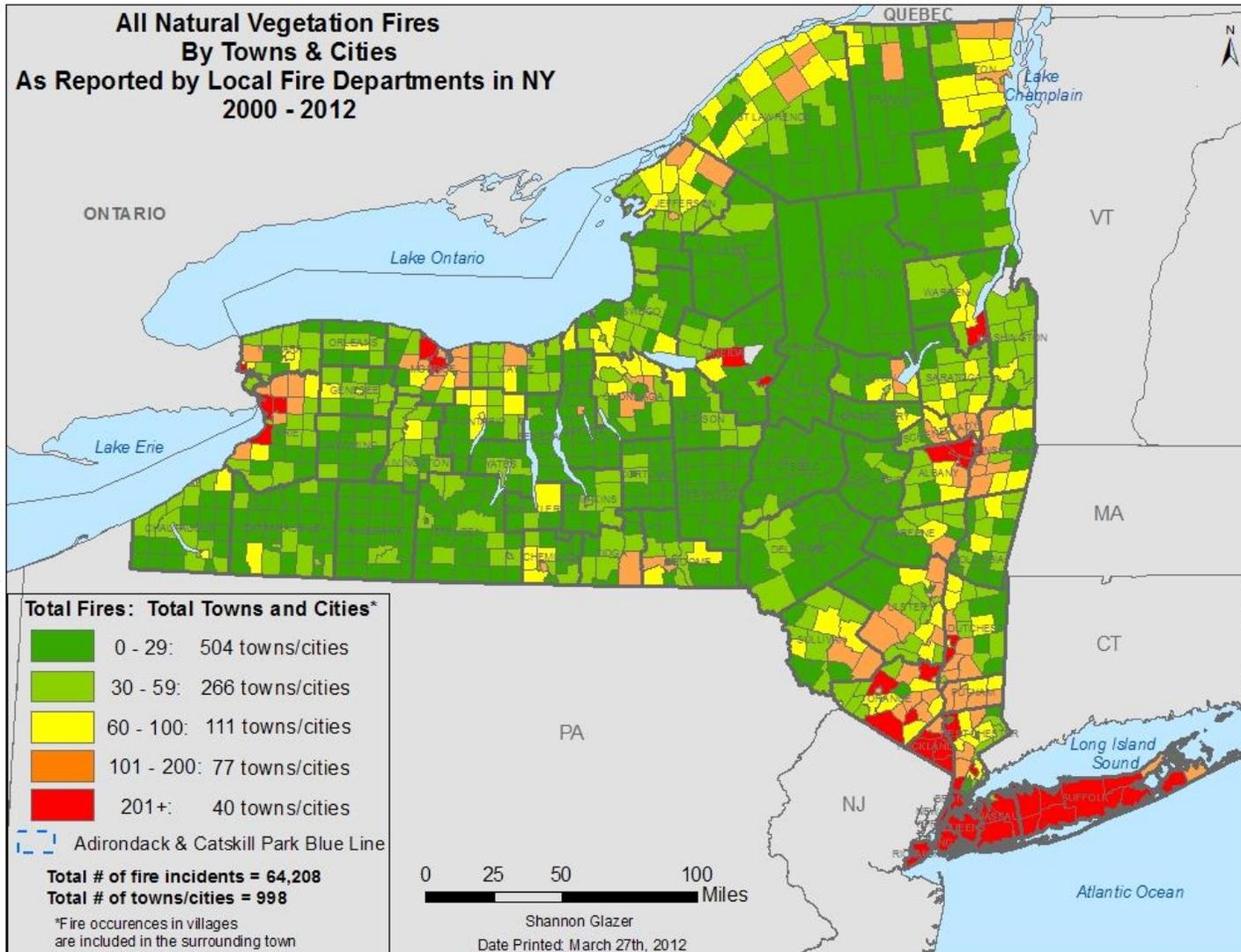
Figure 3.17b shows New York State DEC Forest Rangers Wildfire Occurrence from 1988-2012



Source: New York State Department of Environmental Conservation Forest Rangers



Figure 3.17c references all natural vegetation fires from 2000-2012 reported by local NYS fire departments.



## Probability of Future Wildfire Events

It is hard to predict the likelihood of wildfires as a generic statement of “once every five years” as many factors contribute to the ignition of a wildfire. The likelihood of a fire starting and maintaining itself can be gauged on a daily basis.

### Wildfire experts say there are four reasons why wildfire risks are increasing:

- The way forests were handled in the past allowed fuel in the form of fallen leaves, branches and plant growth, to accumulate. Now this fuel is lying around the forest with potential to “feed” a wildfire.
- Increasingly hot, dry weather in the U.S.
- Changing weather patterns across the country.
- More homes built in the areas called the Wildland/Urban Interface, meaning homes are built closer to wildland areas where wildfires can occur.

Fire has proved to be an essential component to some ecosystems. It is a natural cleaning agent that serves to wipe away unwanted growth, encourage biological diversity, renew soil and allow natural competition for sun and space among species of trees and plants.

With wildfires being snuffed out for decades, species such as the Atlantic white cedar tree have all but disappeared, as have certain flowers, insects, and fauna previously found in local marshes and woods.

According to scientists, when it comes to human safety and property, fire can actually reduce the risks of a devastating wildfire. Periodic fires burn away shrub and underbrush that, if left alone, can collect and become fuel.

Modern scientific thought has led to the emergence of prescribed fires or “controlled burns” in wildfire vulnerable areas. These controlled burns have *reduced* the risk for extreme wildfires, but the risk still exists. We are likely to see small wildfires throughout the State on a yearly basis (as we have regularly experienced in the past), however, advanced methods of fire control and a better understanding of the fire ecosystems, should reduce the number of devastating fires in the future.

According to the Forest Ranger Division wildfire occurrence data from 1988 through 2012; New York State will always be susceptible to wildfires. Ninety-five percent of wildfires in New York are caused by humans, while lightning is responsible for only 5 per cent. Of the human-caused wildfires, debris burning accounts for 35%, incendiary fires account for 17%, campfires cause 13% and children are responsible for 5 per cent. Smoking, equipment, railroads and miscellaneous causes contribute to the remaining 30% of wildfires. Beginning in 2010, New York enacted revised open burning regulations that ban brush burning statewide from March 15 through May 15, a period when 47% of all fire department-response wildfires occur. Forest ranger data indicates that this new statewide ban resulted in 74% fewer wildfires caused by debris burning in upstate New York from



2010-2012 when compared to the previous 10-year average. Debris burning has been prohibited in New York City and Long Island for more than 40 years. Since compliance with this regulation is a continuing objective, forest ranger and fire department historical fire occurrence data will serve as a benchmark for analysis of wildfire occurrence. As wildfires caused by debris burning decline through regulatory enforcement, incendiary or arson fires will likely be the primary cause of wildfires in the future. Addressing this issue will require a greater intensity of enforcement than is realized for all other causes combined.

New York's large size, diverse topography and variety of climates require the state be divided into distinct units for describing wildfire potential and risk. Through research and more than 35 years of wildfire occurrence linked to fire weather indices, New York is divided into 10 fire danger rating areas (FDRAs). FDRAs are defined by areas of similar vegetation, climate and topography in conjunction with agency regional boundaries, National Weather Service fire weather zones, political boundaries, fire occurrence history and other influences. The Forest Ranger Division issues daily fire danger warnings when the fire danger rating is at high or above in one or more FDRAs. A current fire danger rating map is updated daily on NYS Department of Environmental Conservation for the general public to view.

Although fire departments and forest rangers have the most critical roles at controlling wildfires, local communities and residents have the greatest role at preventing fires, loss of life or property damage. Smokey Bear has been a highly successful worldwide symbol of wildfire prevention since 1944. The number of wildfires caused by debris burning, campfires, smoking and children continues to decline due to prevention strategies and behavioral changes. Regardless of prevention strategies, destructive wildfires will continue to occur when weather, fuels and topography support rapid fire spread. Communities-at-risk to wildfire should develop a community wildfire protection plan (CWPP) as a comprehensive means of addressing risk issues and mitigation strategies. In addition, the NYSDEC, Wildland Fire Safety and Prevention program implements the "FIREWISE" mitigation program with participating communities. FIREWISE and Ready, Set, Go! programs provide both general and specific recommendations for communities, homeowners and individuals to protect themselves and their properties from destructive wildfires. Cragmoor, a small historical community in Ulster County adopted the FIREWISE program. They work closely with their local fire department to prevent wild land urban interface fires.



### Justification for Conducting a Full Risk Assessment

Although wildfire received an overall “low” ranking following the HAZNY-Mitigation methodology, it was acknowledged that there are potential cost-effective and technically feasible initiatives and programs that address wildfire mitigation. Consequently, the wildfire hazard was elevated to “moderate” ranking and is addressed within the mitigation strategy, goals and activities for the 2014 update.

### 3.17.2 Assessing Wildfire Vulnerability and Potential Losses by Jurisdiction

As stated previously, any area of the State where the built environment infringes upon or is incorporated within the wildland/urban interface is vulnerable to the damaging effects of wildfire. Areas with high loads of fuel are at increased risk of a wildfire, specifically areas that have experienced a “blowdown” in recent years, allowing for the buildup of fuels. Currently the area of the State that falls into that category is the Adirondack Region, which has increased levels of fuel from recent blowdown events and ice storm damages. Other areas of the State that have a higher level of wildfire hazard include areas with fire-dependent vegetative species. As indicated above, this area encompasses the Pine Barrens region of Suffolk County on Long Island and the Albany Pine Bush. As referenced in **Section 3.4- Climate Change** can impact drought and extreme heat causing drier conditions, which can lead to an increased number of wildfires. For example, in July of 1999, during a drought, all State Department of Environmental Conservation lands in Suffolk County were closed to recreational users. The lands were closed until the fire danger risk was lowered. In 2002, during a drought in the Adirondack Region, concern for the increased fire hazard led officials to ban open-burning and to ban camp fires in State campgrounds.

Since August 2013, 56 FEMA-approved local hazard mitigation plans (LHMP) have been reviewed for the 2014 Update. The State’s planning team had the opportunity to review local county risk assessments to help the State better understand its vulnerability in terms of the jurisdictions most threatened by classified hazards. In its analysis, the State of New York reviewed the processes of local governments and how their hazards were ranked based on their jurisdictions and the potential losses (i.e., people, buildings, and dollar values) associated with the hazards of greatest concern.

Where data was available, the State extracted the ranking impact information from the LHMP hazard analysis. This ranking feature is based on a combination of probability, severity, and extent of the hazard and was determined to be the best measure of overall risk in the plans. This ranking was either numeric or described in terms of high, moderately high, moderate, or low. In cases where this information was not available, ranking values were not determined yet considered if identified in the individual county local plans.

For the sake of the 2014 Update, a proper analysis and summary of the data was required. During the review of the local plan risk assessments, all rankings used were



based on the HAZNY-Mitigation ranking system, and measured on a scale rating from 44 (low) to 400 (high). This analysis revealed that selected county-level plans did include manmade hazards in their analysis, but the State hazard mitigation plan's 2014 Update focused solely on natural hazards.

The local risk assessment summary allowed for an analysis of which hazards are of high concern to particular counties. **Table 3.2a** in **Section 3.2** lists all the hazards and the number of counties that ranked them at each of the scale levels: "High", "Moderately High", "Moderate", "Moderately Low", and "Low". According to the plans reviewed, 33 counties recognized wildfire as a hazard. Allegany "Eastern Region", Essex, Lewis, Orange, Otsego, Rensselaer, Ulster, Warren, Wayne, Westchester, and Wyoming counties identified wildfire as a moderately high hazard, no counties ranked it as a high hazard, three ranked it a moderate hazard, ten ranked it moderately low, and nine considered it a low hazard. **Table 3.17d** displays the highest ranked county hazards.

**Tables 3.17b: Summary of Wildfire Hazard Rankings by County**

Local County Wildfire Hazard Rankings	
High	Moderately High
N/A	Allegany "Western Region", Essex, Lewis, Orange, Otsego, Rensselaer, Ulster, Warren, Wayne, Westchester, and Wyoming

Source: LHMP

### Development in hazard prone areas

Based on the 2010 Census, population increases are being seen or are expected in Albany, Clinton, Cortland, Dutchess, Essex, Franklin, Fulton, Greene, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Nassau, New York City (including Bronx, Kings, New York, Queens, and Richmond Counties), Onondaga, Ontario, Orange, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Seneca, Steuben, Suffolk, Sullivan, Tompkins, Ulster, Warren, Washington, Westchester, and Yates counties.

Essex, Lewis, Orange, Rensselaer, Ulster, and Warren counties had a 1-2% population growth from 2000-2010. They also ranked wildfire as a "moderate high" hazard based on the 56 FEMA Approved LHMPs as of September 2013. As more New Yorkers relocate to rural communities, counties will continue to increase in population, potentially causing more brushfires if residents are not properly educated on fire safety.

NYSDEC Forest Rangers and Fire Departments collaborate with local communities to educate residents living in areas vulnerable to wildfires the value in of fire safety. Section 4 of the plan provides mitigation projects and programs that New York State has currently incorporated or plans to implement in the future.



### 3.17.3 Assessing Wildfire Vulnerability and Potential Losses of State Facilities

Except for recreational and land-management related facilities, state-owned properties are at low risk for impact from wildfires. Although state agencies maintain internal databases that identify location and value of properties within their areas of responsibility, New York State does not currently have a comprehensive data set of state-owned and operated assets that can be integrated into the GIS methodology for analysis. However, a state facilities inventory project was initiated in August 2013, which will gather information that can be used to building a comprehensive data set. The pilot phase, which will look at a specific critical facility category and develop the methodology for the project, is expected to be complete in mid-2014. At that time, the next phase of the project will be developed for what is anticipated to be a multi-year project.

**Table 3.17c: State Owned Buildings and Replacement Cost**

Agency	Number of Buildings	Replacement Cost (\$)
Office of General Services (OGS)	9	\$ 122,193,519
Department of Health (DOH)	27	\$ 67,761,389
Office of Information Technology Services (OITS)	293	\$ 329,045,358
Office of Parks, Recreation and Historic Preservation (OPRHP)	1,840	\$ 504,287,400
Department of Environmental Conservation (DEC)	54	\$ 10,534,440
Office of Mental Health (OMH)	228	\$ 773,237,304
Office For People With Developmental Disabilities (OPWDD)	426	\$ 394,705,144
Division of State Police (DSP)	5	\$ 4,874,743
Department of Military and Naval Affairs (DMNA)	39	\$ 113,149,168
Department of Transportation (DOT)	147	\$ 68,353,325
Office of Child and Family Services (OCFS)	21	\$ 24,645,931
Dormitory Authority of the State of New York (DASAS)	2	\$ 5,631,127
Department of Labor (DOL)	2	\$ 7,448,928
<b>Total</b>	<b>3,093</b>	<b>\$ 2,425,867,776</b>



### 3.17.4 Data Limitations and other Key Documents

The Mitigation Plan Development Team researched the wildfire risk as it affects the State. The contents of this section result from research and outreach including the following sources:

- FireWise Communities; [www.firewise.org](http://www.firewise.org)
- Ready, Set, Go!; [www.iafc.org/ReadySetGo](http://www.iafc.org/ReadySetGo)
- New York's Comprehensive Emergency Management Plan: <http://www.dhSES.ny.gov/planning/documents/Emergency-Services-Branch-3.2012.pdf>
- National Association of State Foresters (NASF); [www.stateforesters.org](http://www.stateforesters.org)
- U.S. Forest Service Fire and Aviation Management; [www.fs.fed.us/fire](http://www.fs.fed.us/fire)
- Northeastern Forest Fire Protection Compact; [www.nffpc.org](http://www.nffpc.org)
- National Fire Protection Association; [www.nfpa.org](http://www.nfpa.org)
- NASF Briefing Paper: Identifying Communities at Risk and Prioritizing Risk-Reduction Projects, July 2010; <http://stateforesters.org/node/1952>
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