

### 4.16 Wildfire

#### 4.16.1 Description

A wildfire is a fire in an area of combustible vegetation that occurs in the countryside or rural area. The Ohio Department of Natural Resources identifies Ohio's wildfire seasons as occurring primarily in the spring (March, April, and May) before vegetation has "greened-up" and in the fall (October and November) when leaf drop occurs. During these times and especially when weather conditions are warm, windy, and low in humidity, cured vegetation is particularly susceptible to burning. Fuel (vegetation, woody debris), weather (wind, temperature, humidity), and topography (hills and valleys) can combine to present an extreme danger to unwary civilians and firefighters in the path of a wildfire. Each year, an average of 1,000 wildfires burn 4,000 to 6,000 acres of forest and grassland within Ohio's forest fire protection district, which corresponds mostly to the state's unglaciated hill country.

#### 4.16.2 Location

According to the *State of Ohio Hazard Mitigation Plan (SOHMP)*, Clinton County is not identified within the ODNR Division of Forestry's Expanded Forest Fire Protection Area; however, it does border two counties that are included in this protection area – Highland and Brown counties. Counties within this region tend to have abundant forested lands and grasslands and, as such, represent the area of highest wildfire risk and hazard in the State of Ohio. The Ohio Wildfire Hazard Assessment is included in **Figure 4.16.1**. This assessment identifies wildfire risk level by township and classifies all townships in Clinton County as low risk for wildfire.

#### 4.16.3 Extent

Several factors can contribute to the escalation of risk of wildfires including the prevalence of forests and agricultural lands and their close proximity to homes, residences, and structures, as well as the distance between fire and emergency management services. In these cases, presence of fire near structures causes fire departments to shift focus away from fire suppression and towards structure protection.

According to the *SOHMP*, 99.9 percent of wildfires in Ohio are caused by human action or accident. As such, many wildfires in the State burn into close proximity of homes and structures. From 1997 to 2007, the main causes of wildfire in Ohio included debris burning, incendiary (arson), equipment, smoking, campfires, children (playing with matches), lightning, and railroad.

#### 4.16.4 History

The *SOHMP* identifies 134 total fire events from January 1, 2007 to December 31, 2017, which averaged to 12 to 13 events annually. These events burned a total of 897 acres averaging 6.69 acres per event.

Estimating the monetary losses associated with wildfires is difficult due to the fact that most of these events occur in open land or fields with monetary losses often not being recorded. This lack of data may result in inconsistencies if an analysis was done based on reported monetary loss. As such, acres burned per fire event is a more consistent method of analysis for this hazard.

Of the 134 events, 113 fires (84.3 percent of events) burned less than ten acres while 20 events (14.9 percent of events) burned between 10 - 99.9 acres. One event (0.75 percent of events) burned more than 100 acres.

### 4.16.5 Probability

According to the *State of Ohio Hazard Mitigation Plan*, there is a 100 percent probability that a wildfire will occur within any county in any given year. Since 134 total fire events occurred in Clinton County between January 1, 2007 to December 31, 2017, an average of ten fire events are estimated to occur annually in the County.

### 4.16.6 Vulnerability Assessment

#### *Infrastructure Impact*

There is low risk that wildfire in Clinton County will impact infrastructure. Wildfire will most likely impact the County through property and crop damage.

#### *Population Impact*

There is a low risk of wildfire in Clinton County. Accordingly, there is a low risk of impact to the population. If wildfire would occur within the County, the population could be impacted by loss of homes and crops.

#### *Property Damage*

As there were 134 recorded wildfire events in Clinton County's history, it is currently estimated that the County has experienced some property and crop damage as a result of wildfires. Occasionally, in the event of a wildfire, fire engines belonging to local fire departments are damaged while suppressing wildfires. Wildfire suppression has resulted in a great amount of personal property being saved by fire departments.

Due to the non-site-specific nature of this hazard, **Table 4.16.1** lists all structures within Clinton County as having potential impacts from wildfires. It also provides values for two worst-case scenarios valued at one percent damage and five percent damage.

Additionally, there are currently 50 state-owned and state-leased critical facilities located within Clinton County, as determined by the Ohio Department of Natural Resources. All 50 of these facilities are located within a low wildfire risk area and have a value of approximately \$4,930,612.

#### *Loss of Life*

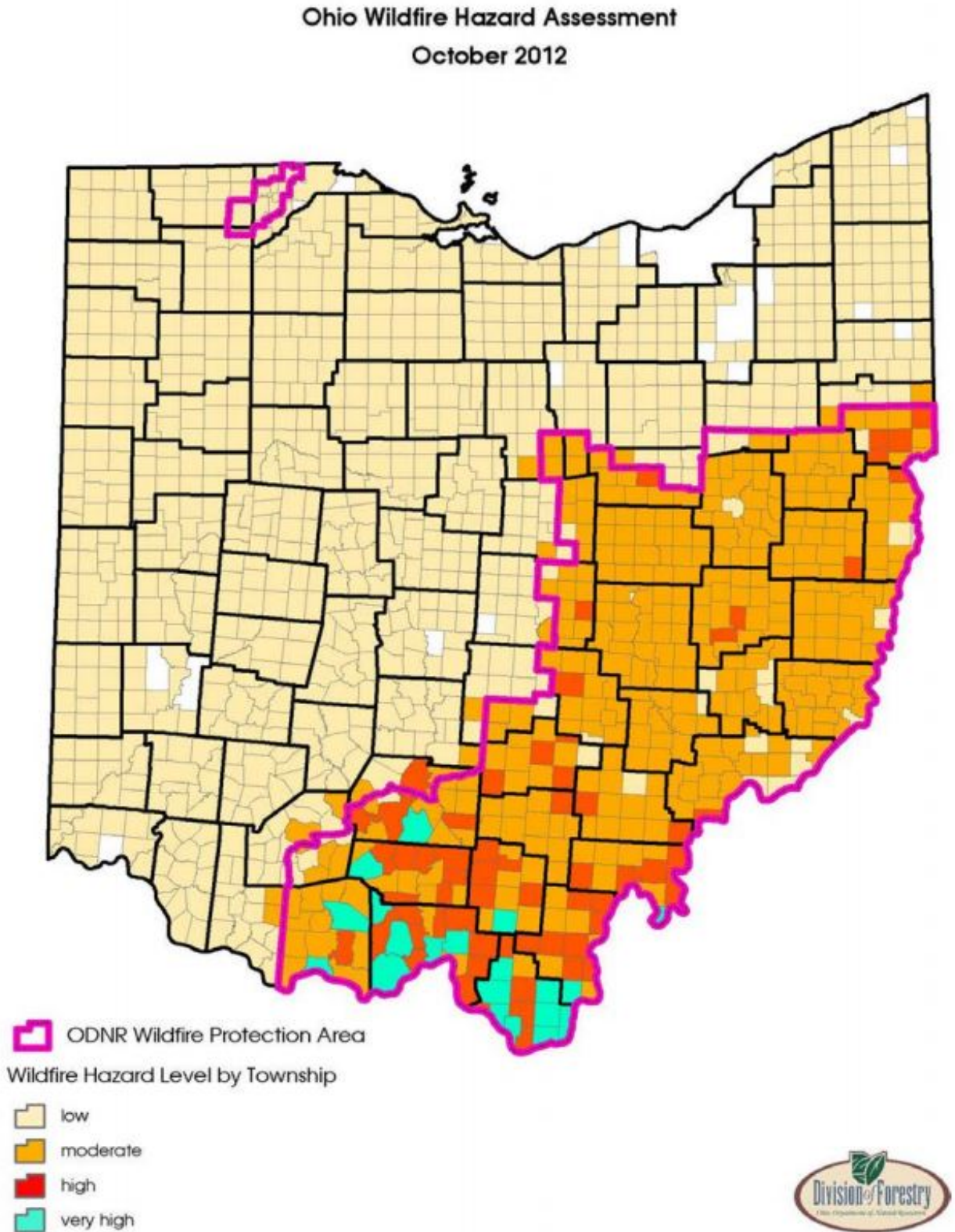
Clinton County has no recorded wildfire events resulting in loss of life. Because of this, it is unlikely that loss of life will result from wildfire; however, with any wildfire event, there is potential for loss of life. Advanced evacuation warnings can reduce the likelihood of death as a result of wildfire.

#### *Economic Losses*

Wildfire has the potential to damage agricultural crops and tree plantations, which can result in economic losses. Potential economic losses and damages associated with Clinton County structures and potential worst-case scenarios are recorded in **Table 4.16.1**, below.

## 4 | HAZARD RISK ASSESSMENT

Figure 4.16.1: ODNR Division of Forestry Wildfire Hazard Level



## 4 | HAZARD RISK ASSESSMENT

Table 4.16.1: Structure Vulnerability from Wildfires

Structure Type	Number of Properties Exposed	Total Value of Structures	Damage for 1% Scenario	Damage for 5% Scenario
Residential	17,871	\$516,675,550	\$5,166,756	\$25,833,778
Non-Residential	8,935	\$887,711,440	\$8,877,114	\$44,385,572
Critical Facilities	102	\$63,454,190	\$634,542	\$3,172,710
<b>Total</b>	<b>26,806</b>	<b>\$1,404,386,990</b>	<b>\$14,043,870</b>	<b>\$70,219,350</b>

*\*Note: Critical Facilities are non-residential structures and their value is incorporated into the non-residential totals as well. Calculated totals are determined by summing the residential and non-residential values.*

### 4.16.7 Land Use and Development Trends

Communities should monitor areas that are especially susceptible to wildfire and avoid development in such areas. New developments in these areas should implement fire protective measures.