



Fires – Wildfires and Urban Fires

General

Wildfires

The most frequent causes of devastating wildfires are droughts, arson, and human carelessness. During the drought of 1999, almost 8,500 acres of forest were burned in Pennsylvania. During the spring of 2001, 2,549 acres of forestland were burned in Pennsylvania. Pennsylvania will lose around 10,000 acres of forestland per year because of wildfires. Nationally, in 2003, wildfires burned five million acres in the United States (National Interagency Fire Center).

Urban

Although fires can start from numerous causes, major fires are often the result of other hazards, such as storms, droughts, transportation accidents, hazardous material spills, and criminal activity (arson), or terrorism. Small structural fires occur often and increase insurance rates.

History

Wildfires

According to the National Climatic Data Center (NCDC), no significant wildfires have been recorded in Snyder County.

Urban

From 1910-1990, Pennsylvania experienced 13 major fires in suburban and urban settings, 10 of them from 1980-1990. From 1978-1982, the average number of deaths per fire was 2.7. Since October 1990, the average number of deaths per fire has decreased.

Vulnerability

Wildfires

Although no significant wildfires have been recorded by the NCDC for Snyder County, the rural nature of the County makes it prone to wildfires. The size and impact of a wildfire depends on its location, climatic conditions, and the response of firefighters. If the right conditions exist, these factors can usually mitigate the effects of wildfires. During a drought, wildfires can be devastating.

Lightning strikes are another cause of wildfires. However, human carelessness and negligence is the leading factor, causing 98 percent of wildfires in Pennsylvania. Wildfires are most



common in the spring (March-May) and fall (October-November). During spring months, the lack of leaves on the trees allows the sunlight to heat the existing leaves on the ground from the previous fall. The same theory applies for the fall, however, the dryer conditions are a more crucial factor.

Urban

Fire vulnerability greatly depends on the vulnerability of other hazards. Most fires result from the secondary effect of another hazard. The probability of a fire occurring has increased with population growth. This is due to human error and carelessness, which are other factors contributing to urban fires. This risk also increases as the use of wood burning and kerosene space heaters increases. The elderly (aged 65 and older) tend to be more vulnerable to fires than any other age group. They also experience the highest number of deaths per fire. The second most vulnerable age group is those aged 14 and younger. These groups are generally affected while they are home alone. Additionally, many homes destroyed by urban fires are often older ones in the community. Fire can spread faster in areas with higher concentrations of housing, as opposed to rural areas. The potential secondary effects of an urban fire include utilities failures and hazardous materials spills.

Probability

The probability of an urban fire in Snyder County is relatively high, occurring every five years or less. Fires affecting one structure happen quite often. However, the risks assessed with these events are relatively low if the fire is not allowed to spread.

Rural fires, or wildfires, have a low probability in Snyder County, occurring every 30 years or more. The rural nature of the County makes it prone to wildfires; however, no significant fires have been recorded in the County's history.

Maximum Threat

Urban fires can occur in any town. However, the greatest threat is where buildings are close together, allowing the fire to spread rapidly. The older boroughs, such as Selinsgrove, Shamokin Dam, Freeburg, Middleburg, and McClure face the greatest threat.

Secondary Effect

If an urban fire or wildfire occurs and is not confined, certain secondary hazards may affect the County. A power outage may be the most prevalent of these secondary effects. Environmental hazards can occur as a result of an urban fire or wildfire. Other secondary effects include loss of property, disruption in the continuity of government, and loss of services.