

## **Utilities Failure – Electric, Water, Gas, & Communications**

### **General**

- Electric – All 48 municipalities in Huntingdon County receive electrical services from the Pennsylvania Electric Company, Valley Rural Electric Cooperative, or New Enterprise Rural Electric Cooperative.
- Water – Water services in Huntingdon County are provided by Mather Water Company, as well as private well sources.
- Gas – Huntingdon County residents receive their gas services from PPL Gas Utilities.
- Communications – Verizon Pennsylvania, Sprint Company of PA, MCI WorldCom Network Service, Inc., and AT&T provide communication services in Huntingdon County. Cellular phone service is most widely available through Verizon Wireless and Cingular Wireless.

### **History**

While utility failures are not well documented, it is not because they are rare. Rather, utility failures occur frequently every year. Future detailed documentation of these instances may allow for the County to mitigate such service failures.

According to the Pennsylvania Emergency Incident Reporting System (PEIRS), there were 16 reportable utility emergency incidents and one communication incident in Huntingdon County between November 2000 and November 2006.

### **Vulnerability**

#### **Electric**

Severe weather is one of the most frequent causes of power loss. Snow, ice, high winds, and lightning can cause damage to electric power grid infrastructure. Worker strikes have not been known to cause major power outages. However, in some cases, minor power failures have occurred. Other causes of power outages include: flooding, falling tree limbs, vehicle accidents involving utility poles, and small animals climbing the lines and shorting out power supply.

Power shortages or failures tend to occur on a regional scale, not simply in a single county. Causes include: infrastructure failure, sabotage, human error, and worker strikes. Also, power outages are often a secondary effect of severe weather. Power outages can cause damage to both homes and businesses. Often, power outages will result in refrigerated inventories being spoiled. This would also occur in residences. According to 2000 U.S. Census data, 11.2 percent of Huntingdon County residents heat their homes with electricity. Another 63.8 percent heat their homes with fuel oil. With no power, these residents would be unable to efficiently heat their homes.

## **Water**

Water contamination can occur naturally, by human error, or intentionally. Occasionally, releases of manure and milk into the water supply can cause contamination. There are also times when accidental spills and releases of hazardous materials contaminate the water. Further, water supplies along transportation routes may be affected by hazardous materials spills.

Water distribution can be affected in three ways: the amount of water available; the quality of the water; and the viability of the physical components of the distribution systems. The quantity of water usually depends on Mother Nature. Humans, on the other hand, are primarily responsible for the maintenance of water quality. Terrorism is a potential threat to water quality. Some intelligence estimates indicate that terrorists may attempt to either poison the water supply or damage associated infrastructure, e.g., treatment facilities, pumping stations, dams, etc. Some terrorist organizations, e.g., al Qaeda, have stated their intention to poison the water supply. However, U.S. intelligence officials state this would be difficult to accomplish, based on the amount of poison needed to contaminate the water supply.

## **Gas**

Gas failures or shortages are less common than other utility failures. Not all Huntingdon County residents utilize gas services. However, according to 2000 U.S. Census data, 7.6 percent of the Huntingdon County residents use gas as their form of heat. If there would be an extensive gas shortage during winter months, those citizens would not have an efficient way to heat their homes.

## **Communications**

The three communication companies servicing Huntingdon County are vulnerable to communication failures. Small scale failures occur often, normally as a result of another hazard, such as severe winter weather or high winds. The advancement of cellular phones offers a new dimension to communication vulnerability. While service is not readily available in all areas, cellular service is rarely affected by hazards.

## **Probability**

The probability of a large-scale, extended utility failure is low. However, small-scale failures lasting short periods of time occur annually.

**Maximum Threat**

Utility failure poses a maximum threat to the special needs population in Huntingdon County. Loss of resources, such as electricity, communications, gas, and water supply, are critical to ensure the health, safety, and general welfare of the citizenry. The special needs population can be vulnerable to loss of heat or air conditioning during extreme weather months. The County must account for its special needs population during times of extended utility failure.

**Secondary Effects**

The potential secondary effect of a loss of communications and water is an inadequate emergency response. Efficient and effective communications and adequate portable water supply are critical resources for first responders. A loss of electricity and gas can have a negative impact on first responders as well. However, the most critical secondary effect would be the loss of heating compounded by periods of severe cold.