Climate Change and Extreme Weather in Pennsylvania

**Precipitation & Drought**
- **Risks:** Increases in precipitation lead to more mosquito breeding habitats, which can spread diseases, such as West Nile or Zika virus.
- **Adaptation:** Develop better stormwater management plans targeting phosphorous, a known agricultural pollutant that increases harmful algal bloom formations.

**Storm Intensity**
- **Risks:** Runoff from extreme rainfall can compromise water quality as pollutants wash into tributaries and Lake Erie, a source of drinking water, fishing, and other recreation.
- **Adaptation:** Set up early warning systems and emergency response plans to prepare for more extreme weather events.

**Extreme Heat**
- **Risks:** Record high temperatures and longer, more frequent heat waves increase risks for heat-related illness in vulnerable populations, such as children, the elderly, and the poor.
- **Adaptation:** Develop local emergency response plans to assist vulnerable populations in cases of extreme temperatures.

**Impacts:**
- Native brook trout and smallmouth bass are sensitive to altered stream flows & higher water temperatures produced by fluctuations in precipitation and warmer air temperatures.
- An ironic impact of greater storm intensity is that both flooding and drought conditions may increase resulting in damage to infrastructure, crops, and human health.

**Impacts:**
- Between 2011 and 2013, the United States experienced 32 weather events that each caused at least one billion dollars in damages.
- Pennsylvania is expecting substantial warming of temperature extremes by the end of the century.

Credits: The National Climate Assessment (nca2014.globalchange.gov) & The U.S. Environmental Protection Agency (www.epa.gov)
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