

HAILSTORM

DEFINITION – In addition to flooding and severe winds, hail is another potential damaging product of severe thunderstorms. Hailstorms occur when ice crystals form within a low pressure front due to the rapid rise of warm air into the upper atmosphere and the subsequent cooling of the air mass. Frozen droplets gradually accumulate on the ice crystals until, having developed sufficient weight, they fall as precipitation in the form of balls or irregularly shaped masses of ice greater than 0.75 inches in diameter (FEMA, 1997). The size of hailstones is a direct function of the size and severity of the storm. High velocity updraft winds are required to keep hail in suspension in thunderclouds. The strength of the updraft is a function of the intensity of heating at the Earth's surface. Damage to crops and vehicles are typically the most significant impacts of hailstorms. Areas in eastern and central Pennsylvania typically experience less than 2 hailstorms per year while areas in western Pennsylvania experience 2-3 annually. (FEMA, 1997).



MITIGATION ACTIONS FOR RESIDENTS

- ▶ **Emergency Alerts and Warnings** – To receive emergency alerts and warnings, refer to the following websites, mobile apps, and other resources.
 - **American Red Cross Mobile Apps** (Apple App Store, Google Play, or text to “90999”
[Mobile Apps - The American Red Cross](#))
 - **South Central Alert** – This service allows residents and businesses in an eight county area to be notified of an emergency situation and important alert messages in a variety of ways, including on their cell phones, home and work phones, by text messaging and e-mail.
[South Central Alert - Sign Up](#)
 - Monitor police news feeds, weather, and news on social media or websites. Receiving periodic updates is vital.
- ▶ **Home Protection** – For new construction as well as retrofitting existing buildings, techniques to minimize hail damage include:
 - Measures such as structural bracing, shutters, laminated glass in window panes, and hail-resistant roof coverings or flashing in building design to minimize damage.
 - Improving roof sheathing to prevent hail penetration.
 - Installing hail resistant roofing and siding.
 - Contacting the [Insurance Institute for Business and Home Safety \(IBHS\)](#) to learn more about the most appropriate type of roof covering for your geographic region.

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MITIGATION ACTIONS FOR MUNICIPALITIES

- ▶ **Adopt the York County Hazard Mitigation Plan** by resolution or develop and implement a municipal hazard mitigation plan. [York County Hazard Mitigation Plan](#)

- ▶ **Public Education and Outreach** – Facilitate funding for mitigation measures and technical assistance programs that address measures that citizens can take. Educate residents regarding risk and impact of hazards, how to prepare and protect themselves and their property. Conduct outreach activities to increase public awareness of hail dangers, including:
 - Mailing safety brochures with monthly water bills.
 - Posting warning signage at local parks, county fairs, and other outdoor venues.
 - Teaching school children about the dangers of hail and how to take safety precautions.