Guidelines for Levee-Protected Areas

Although many levee-protected communities are not mapped as high risk flood zones, this does not mean that there is no flood risk. The following suggestions can reduce your vulnerability if flooding occurs within the protected area.

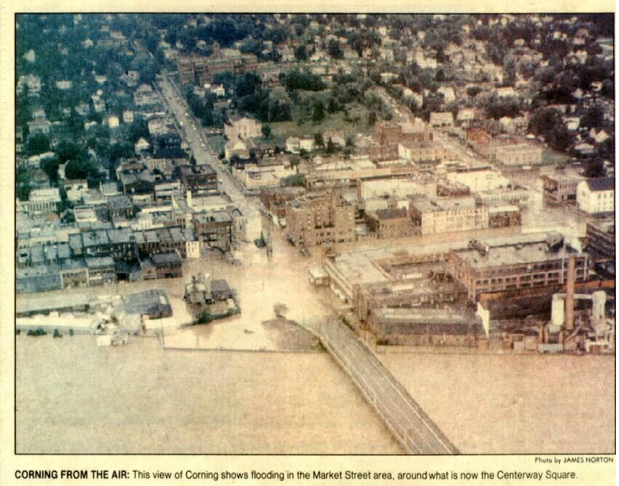


Photo by JAMES NORTON

CORNING FROM THE AIR: This view of Corning shows flooding in the Market Street area, around what is now the Centerway Square.

Corning, NY, 1972.

How safe is it in an area protected by a levee? Levees reduce the risk of flooding. But no levee system can eliminate all flood risk. A levee is an engineered structure that is designed to control a certain amount of floodwater. But a larger flood can occur and overtop the levee, as occurred in Elmira and Corning during the 1972 Tropical Storm Agnes flood. Flooding can also damage a levee, allowing floodwaters to flow through an opening.

Consider an alternate location with a lower flood risk: Can the project be located at a site where you would not need to rely on the flood reduction provided by a levee?

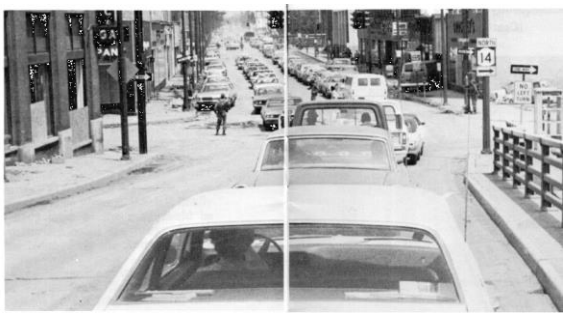
Assess the possible water levels and velocities: How deep could the floodwaters be at your site? Did the area flood when the levee was overtopped in 1972? If so, how deep was the flood water? Compare the ground elevation with the elevation of the top of the levee. Areas close to a levee are more likely to experience high velocity flood water if the levee overtops or fails.

Consider elevating the building: Although it was constructed in a levee-protected area, the Corning Incorporated headquarters building in Corning was built above the height of the levee. The area below this elevated building is used for parking. The City of Corning Fire Station is also elevated, in this case on fill. Consider how your proposed building can be elevated above the potential depth of floodwaters. This may be more easily achieved in areas where the water depths are lower. Don't have a basement.

> ***Wet floodproofing*** *includes a variety of techniques that allow a structure to flood inside, but reduce the resulting damage to the building and its contents.*

Use floodproofing techniques that reduce the potential damages: Use flood resistant building materials in parts of the building below the potential flood level, so that the flood damage to the structure is greatly reduced. Install "flood vents" so that flood water can enter and exit the building without damaging the structure. Utilities should be elevated. If the furnace, water heater, or electric panel is located in a part of the building that may be flooded, it will not be available for use during or after a flood. Install "check valves" in sewer traps to prevent floodwater from backing up into drains. All structures, fuel tanks, and other items should be anchored to resist flotation. In order to reduce the potential for spills, fuel tank openings should be leak-proof and vent openings should be extended as high as possible to prevent floodwater from entering.

Locate vulnerable items upstairs: Plan the use of your building so that valued items are located at higher elevations, above the possible flood level. Insurance papers, deeds, and other important records can be stored in a waterproof safe or an off-site location.



Evacuations in Elmira, NY, 1972.

Prepare for an emergency: Prepare an emergency kit. Pay attention to flood warnings and be prepared to evacuate if told to do so by a government agency. If there is enough time and if possible, you may be able to move items upstairs before you evacuate. Have an emergency plan to help you gather up essential items prior to evacuating, follow a safe evacuation route, meet your family in a pre-arranged location, and to prioritize protective measures for the things you must leave behind.

Insure your investment: Standard insurance policies do not cover flood damage. Since uninsured losses can bring financial hardship, consider protecting your financial investment by purchasing flood insurance, which is available for buildings located in Chemung, Schuyler, and Steuben Counties. If the levee-protected area is not mapped as a high risk floodplain, mandatory flood insurance requirements do not apply – however flood insurance is strongly recommended. Many structures in these areas qualify for low-cost Preferred Risk Policies. Learn more about flood insurance at http://www.FloodSmart.gov/.

Develop a recovery plan: Consider in advance how you will recover after a flood. Where can you stay if your house is uninhabitable? How can your business continue to operate or resume operations?

Additional Information: Learn more from the following references or at the STCRPDB website (http://www.stcplanning.org/index.asp?pageId=107):

- *Wet Floodproofing Requirements for Structures Located in Special Flood Hazard Areas*, Technical Bulletin 7-93, FEMA FIA-TB-7 (1993), http://www.fema.gov/library/viewRecord.do?id=1720.
- *Flood Damage-Resistant Materials Requirements for Buildings Located in Special Flood Hazard Areas*, Technical Bulletin 2, FEMA FIA-TB-2 (2008), http://www.fema.gov/library/viewRecord.do?id=1580.
- *Protecting Building Utilities from Flood Damage: Principles and Practices for the Design and Construction of Flood Resistant Building Utility Systems,* FEMA P-348 (1999), http://www.fema.gov/library/viewRecord.do?id=1750.
- *Openings in Foundation Walls and Walls of Enclosures,* Technical Bulletin 1, FEMA FIA-TB-1 (2008), http://www.fema.gov/library/viewRecord.do?id=1579.

Canisteo, NY, 1972.