

Who Takes Care of Flood Control Levees?

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The grass on flood control levees is maintained at the optimum length for resisting erosion and scour (photograph courtesy of NYSDEC).



As we watched the destruction in New Orleans, many of us couldn't help but wonder, "How reliable are the levees in my community? Will they work when we need them?"

The stark reality is that Mother Nature can produce an event that exceeds the design capacity of any structural flood control project. In addition, the level of protection provided by an existing structure may decline due to inadequate maintenance or operational problems.

In New York, the Department of Environmental Conservation (NYSDEC) is responsible for maintenance and operation of many flood protection projects, including floodwalls and earthen levees. Regular maintenance includes turf management (mowing, fertilization, weed and rodent control), concrete work, drainage structure and pump station upkeep (lubrication of closure gates, painting, etc.), and shoal removal in stream or river channels to maintain flow-through capacities. These activities help ensure the structural integrity and level of protection of the flood control works.

In addition, NYSDEC continues to improve the agency's ability to operate the levee system during high flow events. Along with training of flood protection staff, the department has conducted levee patrol training for outside agencies (local fire departments, etc.) and NYSDEC staff from other programs. This increases the number of eyes that can be called on to watch for problems when a flood occurs. A Flood Training Center at the NYSDEC Regional office in Kirkwood enables effective training of personnel who maintain, patrol, and operate the levee system.

Other efforts to improve levee operations involve eliminating or reducing the levee openings that need to be closed with stop logs or sand bags during a flood. NYSDEC has worked with railroad companies to raise the elevation of the tracks at three locations in the Chemung Basin. They also coordinate with road projects that may occur near the levee system, incorporating levee improvements where possible. One such collaborative effort enabled elimination of two levee openings in the City of Elmira.

What can you do?

- Tell elected officials that you expect flood control structures to be maintained by qualified staff with sufficient resources.
- If you own land near a flood control levee, make sure that any planned work (construction, landscaping changes, etc.) is located outside of the flood control easement or is covered by an appropriate permit.
- Do not operate motor vehicles on an earthen levee or engage in other activities that might damage the vegetation. The dense sod cover protects against erosion and is thus critical to the structural integrity of the levee. Do not place brush, grass clippings, mulch piles, or other items that may kill grass on the flood control lands.
- Report unauthorized motor vehicle usage (ATV's, motorbikes, automobiles, snowmobiles, etc.) or other damaging activities (such as construction) to law enforcement authorities. Any activity that is detrimental to the sod cover of an earthen levee may be prohibited by law.
- Report the presence of rodent holes or other potential problems to local maintenance authorities.

We are all responsible for the flood control projects that protect our communities.



This opening in the levee is closed when necessary by manual installation of stop logs. To improve operational efficiency, NYSDEC coordinated with the railroad company to reduce the height of this closure by 33%, at the same time increasing the capacity of the bridge. Elevation of railroad tracks at other locations enabled a stop log closure to be eliminated and another reduced by approximately 80% (photograph courtesy of NYSDEC).