

Severe Flooding Shuts Down Hospital

Powerful storms dropped torrential rain in magnitude of a 450-year event that resulted in severe flooding in the Southern Tier of New York in June 2006.



DESCRIPTION

The Susquehanna River overflowed its banks, causing flood waters to inundate Our Lady of Lourdes Hospital in Binghamton. The entire first floor at ground level was submerged under 16 to 20 inches of flood water contaminated with raw sewage. The hospital was shut down and all patients were evacuated for several days.

ISSUES

The hospital needed to implement new mitigation measures to reduce the impact of future storms.

The hospital was only able to document \$60,000 in previous flood damage, thus creating difficulties in justifying a cost-benefit analysis to support their desired mitigation measures.

FEMA was hesitant to give consideration to the broader community-wide impacts when evaluating the cost-effectiveness of a cost-benefit analysis.

FEMA also mandated specific guidelines that limited the area in which a new flood wall could be erected.

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SOLUTIONS APPLIED

Our Lady of Lourdes Hospital had been engaged in “flood mitigation feasibility studies” for 20 years prior to the 2006 flooding and provided Adjusters International with engineering documentation and reports dating back to the mid-1980s. Armed with this information, Adjusters International was able to compile a detailed and accurate cost-benefit analysis for the mitigation efforts, using a critical care facility continuity program as a basis, for FEMA’s consideration.

Together, the hospital, the New York State Emergency Management Office (NYSEMO), Adjusters International (as their consultants), and the hospital’s engineering firm proposed hazard mitigation measures supported by an effective cost-benefit analysis. This blueprint fell within acceptable standards set forth by FEMA.

Meanwhile, Adjusters International’s mitigation specialists prepared a hazard mitigation proposal, within the disaster specific guidelines, to protect the facility from any future events, up to a 500-year storm. The proposed mitigation measures included a solid concrete flood wall that would be located at the west, south, and east sides of the facility, and would be equipped with automatically activated flood gates and pumping system that would engage, should floodwaters enter the facility.

OUTCOME

In November 2007, \$5.2 million was awarded to the applicant for the construction of the new flood wall, which included the proposed flood gates and pumping system. This amount represented the entire 75 percent cost share that FEMA was obligated to provide under declaration DR-1650-NY.

When Tropical Storm Lee caused the Susquehanna River to flood the region again in 2011, including the hospital’s parking lot, the flood wall protected the hospital from the overflowing water that devastated surrounding areas.

