

USACE Dam Safety Facts for Prompton Dam (November 2016)

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

Project Location and Description: Prompton Dam was designed and built by the U.S. Army Corps of Engineers (USACE) and completed in 1961. Prompton Dam is part of an integrated reservoir flood control system. In conjunction with General Edgar Jadwin Reservoir it provides flood control protection in varying degrees, to the Boroughs of Prompton, Honesdale and Hawley and to smaller communities along the Lackawaxen River. Flood damage reduction and recreation are the authorized purposes for this project.



The main components of the project are an earthen embankment section, which serves as the main water barrier composed of compacted earth; an intake and conduit that allow water flow out of the dam; and an additional ungated spillway, which is a segment of the structure used to provide additional release of water from the dam during major flood events. The earthen dam is 1,230 feet long, 147 feet high, and the top of the dam is 26 feet wide. The elevation of the top of the embankment is 1,232.4 feet¹. The foundation is made up of rock and soil. The perched-type uncontrolled spillway is excavated through the right abutment of the dam (looking downstream) and is 130 feet wide with a crest elevation of 1,204.4 feet¹. The spillway can pass up to 430,900 gallons per second (57,600 cubic feet per second) or approximately two-thirds the volume of an Olympic size swimming pool each second.

Benefits associated with Prompton Dam: This dam has prevented over \$25.7 million in total flood damages from 1960 to 2015. Over \$458,900 in annual flood damage reduction can be credited to the Prompton Dam project. Annual recreational benefits to the area are \$152,500.

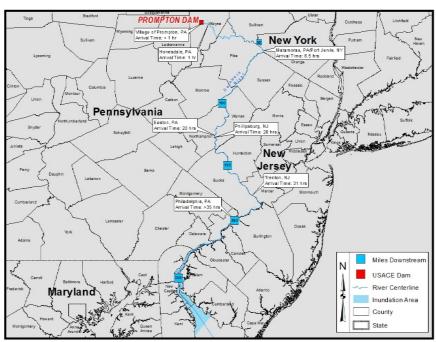
Risks associated with all dams: Dams reduce but do not eliminate the risk of economic and environmental damages and loss of life from flood events. When a flood exceeds the reservoir's storage capacity, large amounts of water may have to be released that could cause damaging flooding downstream. A fully-functioning dam could be overtopped when a rare, large flood occurs, or a dam could breach because of a deficiency, both of which pose risk of property damage and life loss. This means there will always be flood risk that has to be managed. To manage these risks USACE has a routine program that inspects and monitors its dams regularly. USACE implements short and long term actions, on a prioritized basis, when unacceptable risks are found at any of its dams.

Risk associated with Prompton Dam: Based upon the most recent risk assessment of Prompton Dam in 2016, USACE considers this dam to be a moderate to high risk dam among its more than 700 dams because of the risk associated with foundational failure surrounding the water outlets. USACE has implemented interim risk reduction measures and/or long term risk reduction measures to reduce this risk.

¹ Datum is NAVD88 (converted from NGVD29)

What residents should know: Dams do not eliminate all flood risk, so it is important that residents downstream from the dam are aware of the potential consequences should the dam breach, not perform as intended, or experience major spillway/outlet flows. The *high* risk in the Borough of Prompton, Honesdale, Hawley, Matamoras and Easton in Pennsylvania and Port Jervis in New http://promptonpa.com/downstream warrant increased efforts on the part of USACE, local emergency management officials and residents to heighten awareness of the potential flood risk associated with the dam.

The primary areas impacted should the dam breach with a full reservoir during a rare flood event; or experience major spillway/outlet works flows are shown in the map. The potential for loss of life is highest within a couple of miles of the dam with the loss of life concerns decreasing substantially



Map inundation area displayed is a rare flood event and breach. Map Disclaimer: Actual areas flooded and flood arrival times will depend on specific flooding and failure conditions and may differ from the areas shown on the map.

beyond 60 miles downstream of the dam. Advanced warning of problems and events plays a major role in protecting life and property. See the map for a general indication of flooding with a rare flood event and breach.

Public Awareness: Dams are designed to pass large amounts of water on a regular basis and this means there will always be flood risk that has to be managed (see facts below).

Recommendations for Residents

- Living with flood risk reduction infrastructure comes with risk—know your risk.
- Living with flood risk reduction infrastructure is a shared responsibility—know your role.
- Know your risk, know your role and take action to reduce your risk.
- Listen for and follow instructions from local emergency management officials.
- Strongly consider purchasing flood insurance.
- Contact your elected local, county and state officials to make sound flood risk management decisions in your area.

Prompton Dam Facts

Estimated consequences with rare flood event and breach:

- Population at risk: ~12,400
- Structures at risk: ~2,500
- Land and property at risk: \$943 million

Estimated consequences with rare flood event and no breach:

- Population at risk: ~5,900
- Structures at risk: No data available
- Land and property at risk: \$405 million
- Damages prevented to date: \$25.7 million (1960-2015)

National Inventory of Dams # PA00011

Residents should listen to and follow instructions from local authorities. For more information, please contact the USACE Philadelphia District Public Affairs Office at 215-656-6500 or the District Emergency Management Office at (215) 656-6756.

For additional information about dam safety and living with dams, please visit: http://www.usace.army.mil/Missions/CivilWorks/DamSafetyProgram.aspx and http://www.damsafety.org/media/Documents/DownloadableDocuments/LivingWithDams_ASDSO2012.pdf