

USACE Dam Safety Facts for General Edgar Jadwin Dam

U.S. ARMY CORPS OF ENGINEERS

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Project Location and Description: The General Edgar Jadwin Dam (Jadwin Dam) project is part of an integrated reservoir flood risk management system. In conjunction with Prompton Dam it provides flood risk management in varying degrees, to the boroughs of Honesdale and Hawley and to smaller communities along the Lackawaxen River. Flood control is the only authorized purpose for this project.

Jadwin Dam is located on Dyberry Creek north of the Borough of Honesdale, Pennsylvania, in Wayne County, Pennsylvania. The dam is situated approximately 2.9 miles upstream of the confluence of Dyberry Creek and the Lackawaxen River. This flood control project is a dry



dam that maintains no pool during normal operation. The dam can provide 24,500 acre-feet of storage up to the spillway crest and a total of 47,300 acre-feet of storage at maximum pool.

The dam embankment is a zoned earth and rock-fill structure. The crest of the embankment, contructed to elevation 1081.4 feet, NAVD 88, is 1255 feet long with a crest width of 30 feet. The maximum section rises 109 feet above the original streambed.

Other pertinent features are the ungated outlet works and the spillway, both located on or near the left abutment. The spillway is a perched-type, uncontrolled open channel that is excavated through the left abutment. A concrete ogee section with a crest eight feet above the upstream channel bottom was built near the upstream entrance to the open channel spillway.

The sole purpose of Jadwin Dam is to attenuate the peak downstream flow on Dyberry Creek and the Lackawaxen River. Normally there is no pool behind the dam and the flow of Dyberry Creek is directed through the outlet tunnel. When flow on Dyberry Creek exceeds the capacity of the outlet tunnel, impoundment begins. When pool elevation exceeds the crest of the spillway (1052.4 feet, NAVD88) flooding downstream of the dam will occur as the dam's capacity to regulate flooding is exceeded above that pool elevation. The record pool occurred June 2006 at elevation 1040.2 feet, NAVD88 approximately 12 feet below the spillway crest. Some minor flooding of downstream properties may occur even before spillway flow begins because flooding downstream of the dam develops from local runoff below the dam and also some properties may have been added to the floodplain after construction of the dam.

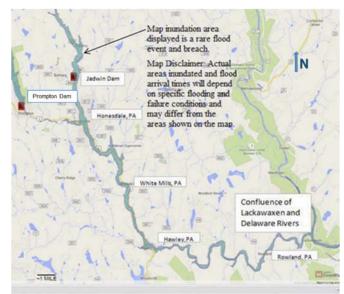
Benefits associated with General Edgar Jadwin Dam: This dam has provided an estimated total flood damage reduction of \$32 million since 1960.

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 will have to be released that could cause a damaging flood 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 these possibilities pose risk of property damage and life loss. 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 General Edgar Jadwin Dam: Based upon the most recent risk assessment in 2016, USACE considers this dam to be a high risk dam among its more than 700 dams primarily due to the potential for internal erosion in the embankment during a moderate to high flood resulting in uncontrolled release of pool at high to extreme flood events. USACE has implemented interim risk-reduction measures to reduce this risk.

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 experienced major spillway flows. The high risk in Honesdale, White Mills, and Hawley, Pennsylvania, and the related consequences farther 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 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 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.

General Edgar Jadwin Dam Facts

Estimated consequences with rare flood event and breach (El. 1084.5 feet, NAVD88):

Population at Risk: 4,898 (Daytime)

Structures at Risk: 2.199

Property Damage: \$878.9 million

Estimated consequences with rare flood event and no breach (El. 1084.5 feet, NAVD88):

Population at Risk: 4,234 (Daytime)

Structures at Risk: 1,908

Property Damage: \$635.5 million

Damages prevented to date: \$32 million (1960-2015)

National Inventory of Dams # PA 00009

Residents should listen to and follow instructions from local authorities. For more information, please contact USACE, Philadelphia District using the information on this fact sheet.

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

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