



US Army Corps  
of Engineers



# DAMS AND FLOOD INUNDATION MAPS

**Dams provide significant benefits** - they help reduce the risk of flooding, support navigation, supply water for drinking and irrigation, provide power, offer recreation opportunities, create space for fish and wildlife, and help manage waste. However, no dam is risk-free. Flooding can occur near dams in a variety of scenarios. Inundation maps are a tool used to visualize impacts from flooding and prepare in advance.



*Large volumes of water released from a dam can cause flooding downstream. Some maps available on the National Inventory of Dams (NID) show this scenario. (Keystone Dam, Oklahoma)*



*Emergency managers and community leaders can use flood inundation maps to see which roads may be under water during a dam-related flood and plan safe routes for people to evacuate.*

## WHAT ARE FLOOD INUNDATION MAPS?

Flood inundation maps show possible flooding near dams. Each map represents how water might behave and how the dam might react. Shaded areas show where water may go upstream and downstream of dams, including how far it may extend past the banks of a river or waterway and how deep it may be.

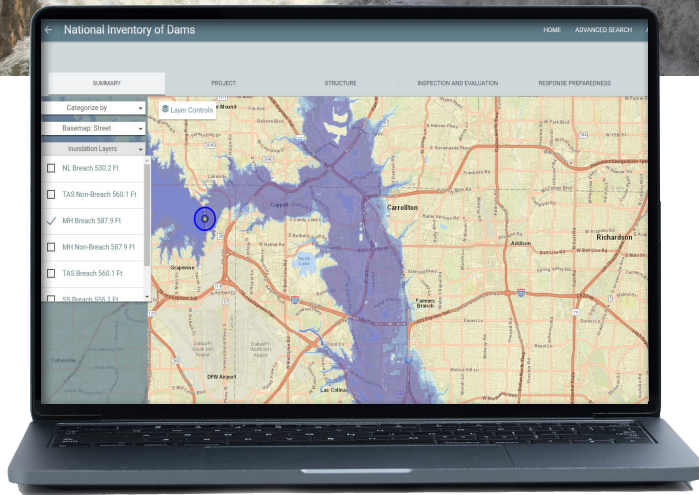
## HOW ARE THESE MAPS USED?

Emergency managers, community leaders, and decision makers can use dam-related flood inundation maps to understand what types of flooding may occur, who and what could be damaged or in harm's way, and how much time there might be to give evacuation notice in an area that may flood. These maps are important for the development of emergency action plans, evacuation plans, and other emergency response activities.

# WHERE CAN I FIND THESE MAPS?



New Croton Reservoir Dam (Spillway), New York



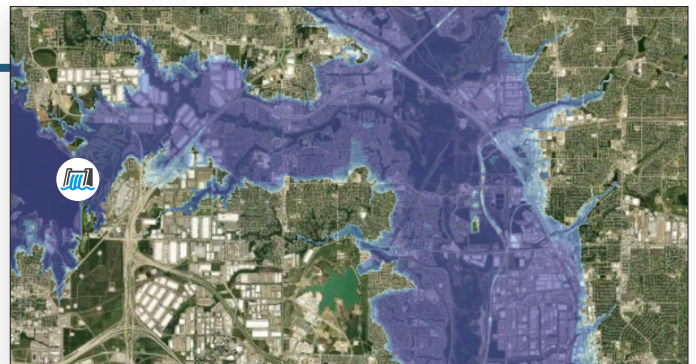
When available, the NID includes multiple flood scenarios for a dam such as flooding that can occur during a dam release or because of a dam breach. Scenarios can be toggled on or off within the NID map viewer.

The **National Inventory of Dams (NID)**, a congressionally authorized database that documents dams in the U.S. and its territories, includes these maps when available. A basic map is available for all dams in the NID that shows the location of the dam. When available, flood inundation layers can be toggled on or off within the map. More detailed information is available using the “Advanced Map” tool.

Flood inundation maps are not yet available for all dams in the NID. We encourage you to check the NID on a regular basis to see newly added and updated maps or reach out to the NID team for more information at [NID@usace.army.mil](mailto:NID@usace.army.mil).

## WHAT ARE THE LIMITATIONS OF THESE MAPS?

While flood inundation maps are extremely useful in illustrating possible scenarios, they do not explain the likelihood of an event occurring. These maps are developed using the best available information. Preparing these maps includes many assumptions and uncertainties: flooding may not occur in real-time exactly as shown and actual conditions may vary from the estimated extent and timing of flooding depicted on the map. Individuals trying to understand if they will be impacted by potential flooding should talk to local officials who can offer advice on how to prepare before a flood occurs.



Dark shaded zones on the map show where water may go and how deep it may be. This is one possible flood scenario although water may behave differently in real-time.



## QUESTIONS?

Please contact the NID Team at [NID@usace.army.mil](mailto:NID@usace.army.mil), with any questions about the information included on the National Inventory of Dams.