

Fact Sheet
Structural Measures
(Local Protection)

Option: Dams or Impoundments

Description: An impoundment or lake is that area behind a dam used to collect and store flood waters, thus preventing them from reaching the areas to be protected. The stored flood waters are later released at reduced (non-damaging) flow rates.

Example(s): Detention ponds and flood risk management dams.

Benefits: Flood flows are reduced, thereby reducing flood elevations. Typically, there are no impacts downstream such as through channelization.

Challenges: For a river the size of the Delaware River with very large flood flows, impoundment areas must be extremely large to have a measurable impact on the flow. Large impoundment areas take up a significant area of land, usually adjacent to the river, which must be acquired and maintained as a flowage easement. This land is then flooded and remains flooded for a period of time while the detained water is released. In addition, a detention structure, such as a dam or levee-like berm must be constructed, which presents challenges similar to construction of a levee.



*Blakely Mountain Dam, Lake Ouachita, AR:
Used for flood control and hydropower.*

