

# Dam Safety Regulation Information

Last Updated January, 2019

# Regulatory Requirements

In Virginia, dams must comply with [Title 10.1. Conservation](#) » [Chapter 6. Flood Protection and Dam Safety](#) » [Article 2. Dam Safety Act](#).

- Dams must have a hazard classification done by a competent engineer
  - WP Dam is classified as High Hazard because dam failure during flood and non flood conditions will over top Nash Road, Highland Glen Drive, and Eastfair Drive, and will flood 9 homes in the Highlands
- Dams must comply with Dam Safety Regulations based on their hazard classification
  - [Virginia Administrative Code Title 4. Conservation and Natural Resources Agency 50. Virginia Soil and Water Conservation Board Chapter 20. Impounding Structure Regulations](#)
- High Hazard earthen dams that contain 15 acre feet of water (or more), and are 25 feet high (or more) must have spillways that will pass 0.9 of the predicted maximum precipitation (PMP) without overtopping the dam.
  - WP Dam is 35 feet high, and contains a maximum of 2,242 acre ft of water.
- High hazard earthen dams that meet certain additional requirements can be in compliance if the spillways pass 0.6 PMP. One of the requirements is the dam owner must have sufficient insurance to cover downstream losses due to dam failure.
  - WPLA has not been able to obtain this insurance.

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- The predicted maximum precipitation (PMP) for our dam is

Duration, hours	Full PMP rainfall depth, inches
6	29.5
12	33.5
24	33.5

- The PMP model was revised in 2015 and reviewed and authorized on March 23, 2016.
- Our spillways must be able to pass 22,545 cubic feet of water per second to not over top the dam during a 0.9 PMP event
  - Our current spillways can only pass 10,140 cubic feet of water per second
- A dam failure inundation map must be prepared and shared with local agencies
  - Timmons Group modeled our dam failure and provided inundation maps. The failure analysis is on the WPLA website.
  - These maps are included in our Emergency Action Plan and were provided to local agencies
- An Emergency Action Plan (EAP) must be documented and shared with appropriate agencies
  - We have a documented EAP that has been shared with appropriate agencies. The EAP is on the WPLA website.

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- Emergency Action Plan drills should be conducted annually, and table top exercises conducted at least once every 6 years.
  - WPLA members who have roles in the EAP have reviewed the EAP and the two hurricanes in 2018 provided drills.
  - A table top exercise will be conducted in 2019
- A licensed professional engineer must inspect the dam every two years.
  - Timmons Group inspects our dam every two years. Past inspection reports are on the WPLA website.
  - Any deficiencies are addressed promptly