Lake Shenandoah Dam Renovation

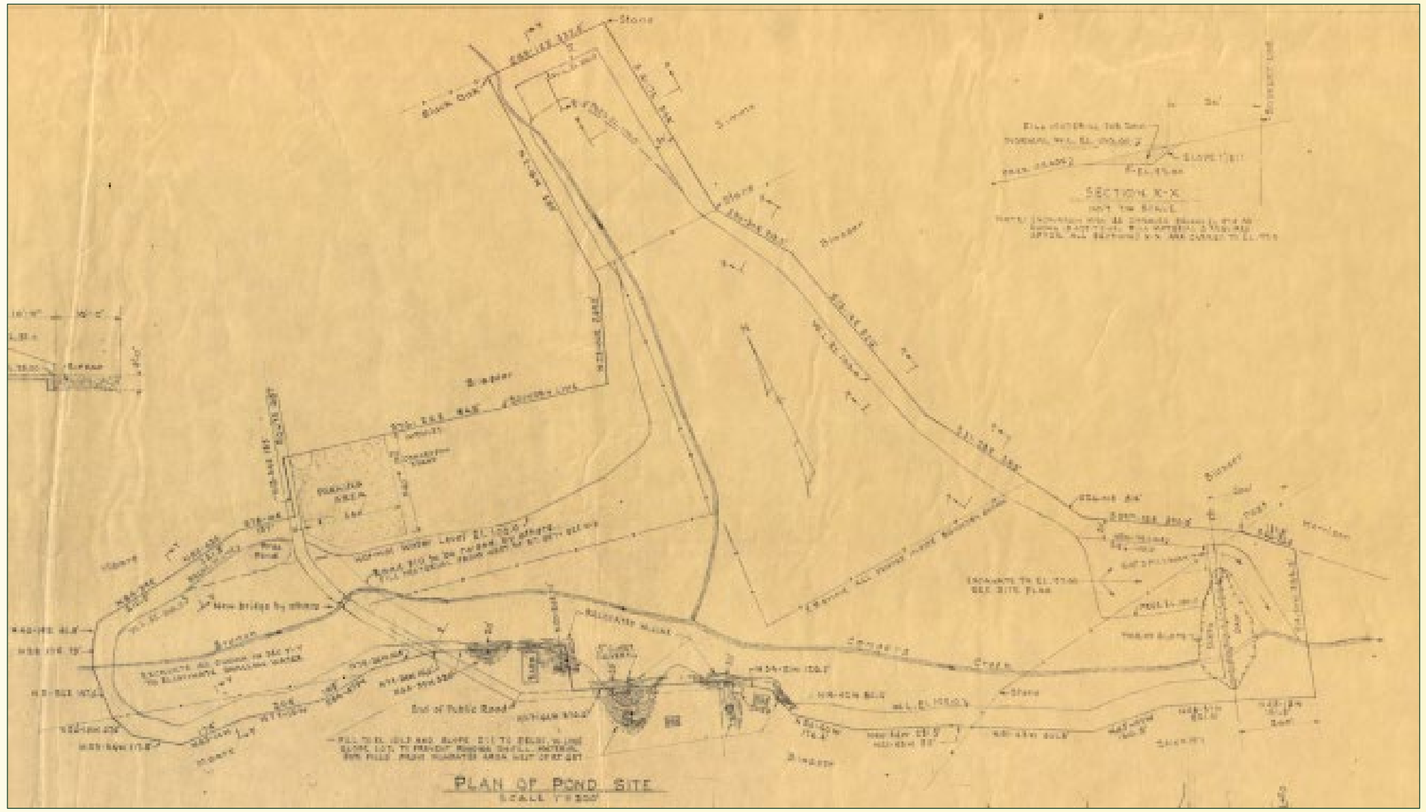
CONSERVE. CONNECT. PROTECT.

John Kirk, Capital Programs Manager

Community Meeting
October 10, 2024

Lake Shenandoah Dam History

- Originally constructed 1956
- Earthen dam
- Current elevation: 1295.5 feet
- Classified for public recreation
- DCR Classification: High Hazard



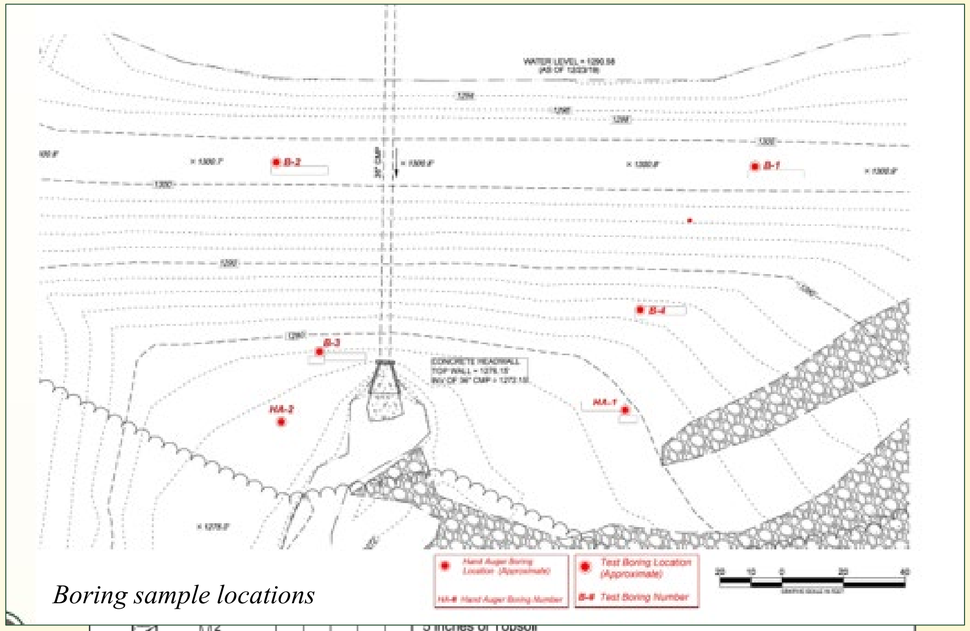
Lake Shenandoah Existing Dam/Impoundment

Why was Lake Shenandoah Lowered?

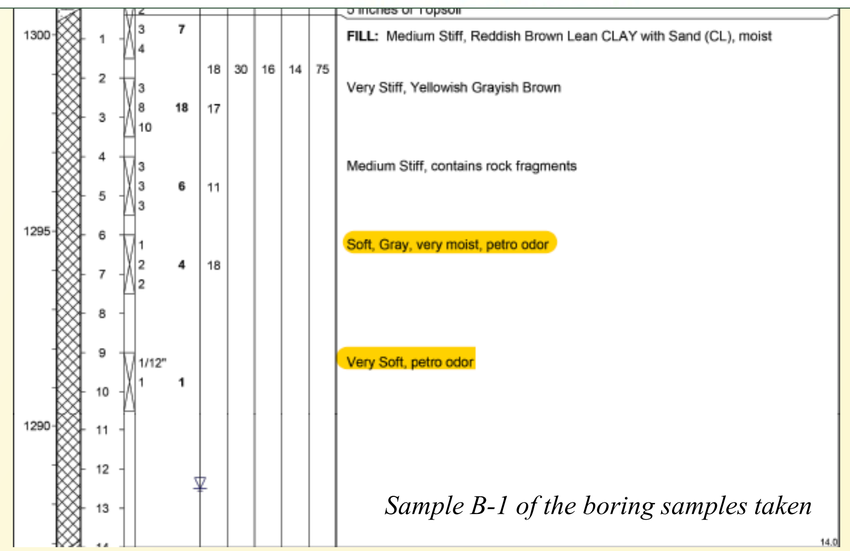
- A heavy storm event in 2018 damaged the emergency spillway
- DWR staff lowered the water level of the lake

At that time, an additional evaluation found:

- Large wet area at base of dam identified as seepage. This seepage is ongoing and flowing at a rate of 0.5 gpm.
- Boring samples were taken in multiple locations and found unsuitable materials throughout the dam.



Boring sample locations



Sample B-1 of the boring samples taken

Lake Shenandoah Dam Renovation

- The project will move the dam upstream approximately 322 feet from original placement.
  - Allows for a more cost-effective design
  - Prevents flooding of neighboring property

- New pool level will be slightly lower than current state you see outside today

- New dam will have a concrete spillway compared to the riser tower in the existing dam

- Walking trail will be around the base of the dam rather than over it.

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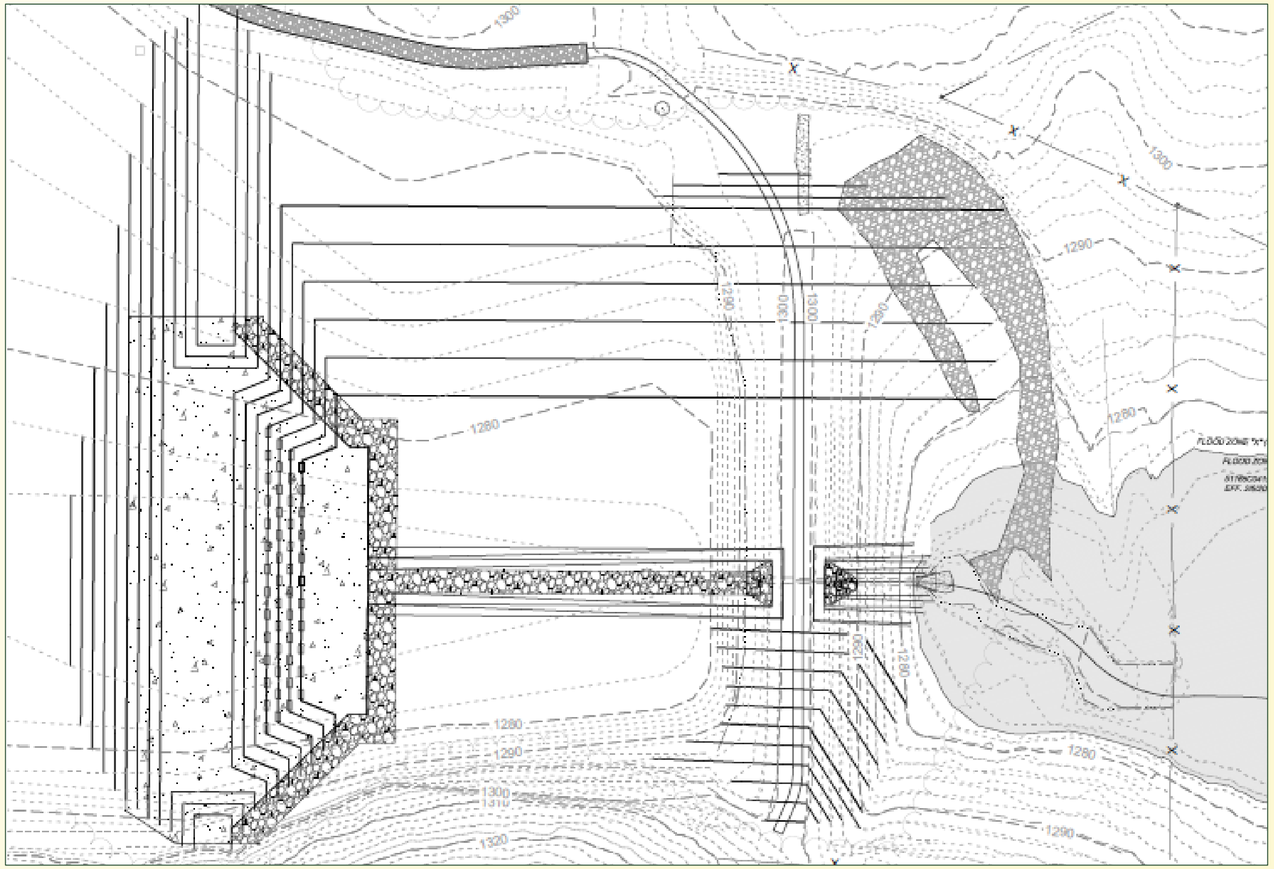
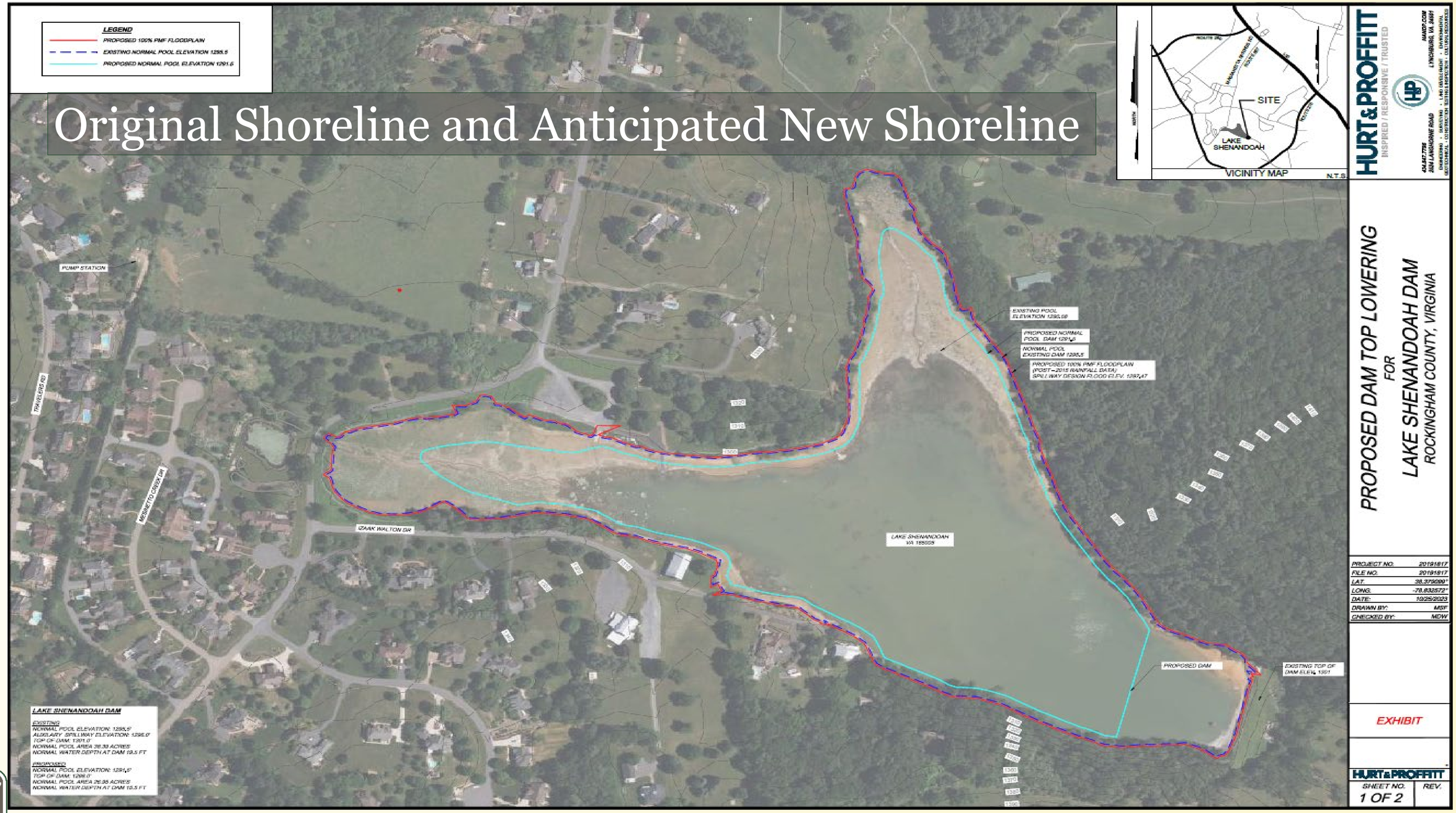


Original Shoreline and Anticipated New Shoreline



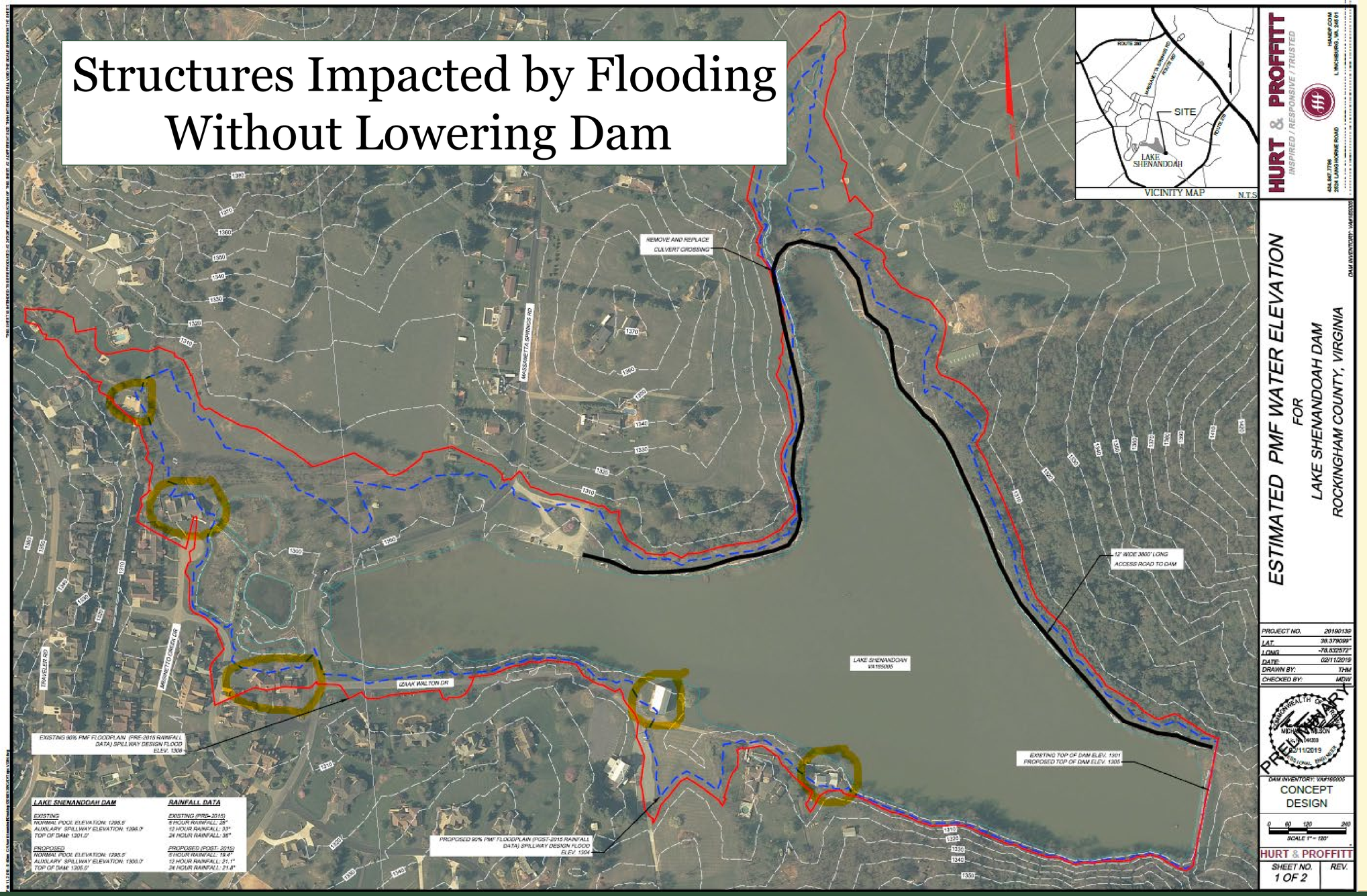
Why Will the Water Level be Lower?

Department of Conservation and Recreation (DCR) Dam Safety, the regulatory agency, requires that DWR eliminates the possibility of flooding upstream houses and property when planning and designing.

Modeling indicates that during an extreme storm event, multiple homes and structures, including this Izaak Walton building and the bridge into the development, would be impacted.

DCR Dam Safety will not approve a design that would knowingly impact homes and structures in the event of dangerously high-water levels.

Structures Impacted by Flooding Without Lowering Dam



What is the Anticipated Timeframe and User Impact?

- Funding in place (December 2024)
- Plans and permits finalized (January 2025)
- Project out to bid (Feb-March 2025)
- Project awarded (April 2025)
- Construction start (May-June 2025)
- Expected completion (December 2026)

Lake water level will have to be lowered completely ahead of the project. DWR can only drop the lake six inches/day per DCR regulation

Once construction is started, users should expect the lake to be completely drained for an extended period.

When construction starts the trail system will be partially closed for them to be used as a construction entrance for equipment, materials, etc., specifically, the trail on the north side from the boat landing entrance to the opposite side of the existing dam.

Vision for the Future

DWR will plan and build a resilient dam that ensures public safety for the community

DWR's goal is to restore the lake to provide recreational opportunities to the community and others

DWR's fisheries staff will work to re-establish fish habitat and healthy populations

DWR will relocate the boat ramp & fishing piers to create sustainable access to the lake in its new state

DWR's Habitat Education Coordinator will work in conjunction with regional staff, Master Naturalists and other volunteers to develop a vegetation management plan that will focus on providing habitat for native wildlife along the water's edge and trail

Thank you!

Questions?

Contact information:

John Kirk
John.kirk@dwr.virginia.gov