North Fork Dam Improvement Project

Frequently Asked Questions – Part II

If residents live above the North Fork Dam, should they evacuate or stay put?

Evacuation procedures will depend on the situation, but residents who reside higher than the top of the dam are encouraged to stay put unless otherwise informed by emergency responders. Access out of their property may be compromised after a flood event occurs.

How many fuse gates will there be?

Eight gates will be set to tip at different flood stages.

How much construction noise should nearby residents expect over the two-plus-year construction period?

Construction activities that may result in noise include limited blasting and equipment backup alarms. Construction activities are scheduled to occur during daylight hours, Monday through Friday, with limited blasting planned to occur between the hours of 9 a.m.-3 p.m. Before construction begins, the City will hold another question / answer session for residents who live near the dam. Weekend work may be allowed and nearby residents will be notified if the work will impact the residents' daily routine.

How much dirt and debris will be hauled in/out of the site?

Most of the earth that will be moved will originate and be contained within the site. While there will be a lot of dirt and debris that is moved around on the site, at this point, there is not expected to be any significant hauling of earth materials onto the site. Some excavated material may need to be hauled away. After the project is bid and the final

materials are procured, there will be a need to haul aggregates in for concrete if the concrete is batched on-site; otherwise concrete trucks will haul in concrete from a local vendor.

How much traffic should we expect on North Fork Left Fork Road and North Fork Right Fork Road?

There will be some construction traffic as the contractor mobilizes onto the site. Once the heavy equipment is onsite, it will remain there until use of equipment is no longer needed for the project. There will also be personal vehicles transporting to and from the site daily. As mentioned above, concrete materials will be brought in from off site.

What is the current capacity of the dam and what will the new capacity be?

The current capacity of the dam is 24,000 cubic feet per second and the future capacity will be about three times as much at 72,000 cubic feet per second.

Do the planned enhancements increase water capacity?

Yes, as it relates to a stabilized normal pool, because the current plan requires mandatory drawdowns during periods of the year; however, the demand for water at North Fork has actually decreased over the past decade due to an out flux of industry and large customers in our region.

What design storm are the planned improvements based off of?

The new spillway will safely pass the rainfall from the probable maximum precipitation (PMP), which in this case is a storm with a return period well over a 50,000-year storm event. The auxiliary spillway would start trickling water over its weirs at the 200-year storm event. The first fuse gate breaks out at just over the 1,000-year storm event. In order for all fuse gates to let go, a 50,000-year storm event would need to occur.

When does FEMA get involved with recovery efforts?

“Once a disaster has occurred, and the State has declared a state of emergency, the State will evaluate the recovery capabilities of the State and local governments. If it is determined that the damage is beyond their recovery capability, the governor will normally send a request letter to the President, directed through the Regional Director of the appropriate FEMA region. The President then makes the decision whether or not to declare a major disaster or emergency.

After a presidential declaration has been made, FEMA will designate the area eligible for assistance and announce the types of assistance available. FEMA provides supplemental assistance for State and local government recovery expenses, and the Federal share will always be at least 75 percent of the eligible costs.”

Source: https://www.fema.gov/public-assistance-frequently-asked-questions#Q01

Who is responsible for keeping the storm drains unclogged and with what frequency?

The City of Asheville Stormwater Services & Utility department is responsible for storm drainage maintenance.

Are there maps available that show the impact of 3 inches, 6 inches, 9 inches, 12 inches, 22 inches, etc.?

The City's engineer for this project maintains a model that simulates the impact of receiving certain volumes of rain under a variety of environmental and climatic conditions.

Additionally, the US Geological Survey (USGS) partners with local communities to assist with the development and validation of flood inundation maps. A flood inundation map is a map that shows where flooding may occur over a range of water levels in the community's local stream or river.

Please tell us more about the model used for the basin.

The probable maximum precipitation (PMP) estimate was developed using a site-specific model based on a TVA regional model, incorporating meteorological conditions and storm data. The PMP results in rainfall of approximately 28 inches in 24 hours.

Why did TVA create this model?

TVA wanted to provide more accurate modeling for its sub-basins as it relates to water supply, hydroelectric capacity, and flood modeling. Applied Weather constructed the model for TVA and has done so for several states in the US as well.

Will the spillway always be running?

The primary spillway will continue to routinely have water flow over it. The auxiliary spillway will not start to flow until a 200-year storm event.

Where is the project budget coming from?

This project is being funded by revenue from the Water Enterprise Fund through capital project fees. There will also be bonds issued for construction.

In the EAP, is there a protocol for a chlorine leak? Have there been or could there be modeling to show where the chlorine cloud might go under different conditions?

In the mid-1900s, the City switched to liquid chlorine. The product is similar to the bleach sold in by retailers with two exceptions: the concentration is a little higher and the product is made for water treatment. We do have SOPs in place for chemical spills that may take place within the property. Spills that occur outside the property are handled by the hauler and the Emergency Management group(s) for containment and cleanup.

Is the previous Rod and Gun Club cabin a Historic Property?

The North Carolina State Historic Preservation Office (SHPO) determined that the former Black Mountain Rod and Gun Club Cabin — which sits between the primary spillway and saddle dam and would be demolished as part of this project — was not considered a historic designation, according to an August 24 notification from the SHPO.

Will there be some kind of alarm when the spillway releases water in order to notify fisherman or swimmers in the area?

Currently there are no plans for alarm improvements.