# Planned Enhancements

at Blewett Falls Hydro Station



## Over the next three years, Duke Energy will be performing construction activities at Blewett Falls Hydro Station.

These projects are required under Duke Energy's federal license to ensure dam safety and provide additional habitat for migratory fish.

### New License for the Yadkin-Pee Dee Hydro Project

In April 2015, Duke Energy received a new license for the Yadkin-Pee Dee Hydro Project, which includes Lake Tillery and Blewett Falls Lake. The license, issued by the Federal Energy Regulatory Commission (FERC), provides enhancements to water quality, recreation, fish and wildlife habitat protection and land conservation, while ensuring Duke Energy's ability to meet customers' needs with clean, renewable energy.

#### **Fish Passage Facilities**

The new license requires Duke Energy to install fish passage facilities for American shad and American eel both upstream and downstream at the Blewett Falls Hydro Station.

American shad are migratory fish that are born in freshwater, mature in the ocean and return to freshwater to spawn. Because Blewett Falls Hydro Station is the first dam the fish encounter on the Pee Dee River as they swim upstream from the Atlantic Ocean, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and FERC are requiring Duke Energy to install a trap, sort and truck (TST) facility to collect these fish and pass them around the dam. This gives the fish access to additional spawning habitat.

Duke Energy will also install a downstream passage facility on the Blewett Falls spillway to allow passage around the dam for the juvenile American shad.







BUILDING A SMARTER ENERGY FUTURE ®

The TST facility will be located adjacent to the powerhouse tailrace. This will require the current public fishing access area to be relocated farther downstream. This access area has been closed to the public due to storm damage received during Hurricane Florence and due to the construction activity in the area. A new fishing platform is currently scheduled to open to the public in 2020.

The American eel is also a migratory fish that is born in the ocean and lives most of its life in freshwater like the Pee Dee River. When it reaches maturity, it will swim back downstream to spawn in the ocean. Duke Energy is required by its new license to install upstream and downstream passage facilities for the American eel. These facilities will be located on the Blewett Falls spillway.

#### Spillway Anchoring and Inflatable Gate

Due to revised federal guidelines, FERC is requiring Duke Energy to install additional anchoring in the concrete spillway at Blewett Falls to ensure it has the appropriate factors of safety, above the original design in 1912. This is a safety measure and part of the FERC's nationwide effort to upgrade existing dams to withstand greater floods that far exceed those previously experienced by the dam.

#### To safely perform the work on the spillway, the Blewett Falls Lake level will need to be maintained 6 to 8 feet below full pond.

During high inflow events, the lake level will rise but will be drawn back down to resume construction when the high inflow event has ended.

Construction on the spillway is scheduled to begin in early 2020 and could take as long as two years to complete.

When the lake level is 6 feet below full pond, Blewett Falls Lake should still be accessible via the boat ramps at the Pee Dee Public Access Area. These ramps were extended in 2017 when the site was upgraded. The boat ramp at Grassy Island will not be accessible. When recreating on the lake, the public will see barges and cranes performing work at the spillway and should maintain a safe distance from the work area.

Work on the spillway requires the removal of the wooden flashboards that are currently used on the crest of the spillway to maintain the lake level at the full pond elevation. When high inflow events occur, these boards break off, as designed, to allow more water to pass over the dam. Each time the boards break off, replacement of the flashboards requires Duke Energy to lower the lake level by 4 feet or more to safely access the dam. This typically happens several times per year.

The flashboards broke off the dam during the high inflow from Hurricane Florence. Because construction on the spillway is scheduled to start in early 2020, the flashboards





will not be replaced. This means the lake level will be lower than normal as inflows decline and will remain lower than normal during construction on the spillway.

When the anchoring project is complete, an inflatable gate will be installed to replace the wooden flashboards. This gate can be lowered in anticipation of high inflow and can be raised after the event to restore the lake level to full pond. This new gate will result in less lake level fluctuation and fewer drawdowns of the lake than in the past.

While these construction activities at Blewett Falls are underway, the surrounding area is going to be busier than normal. Duke Energy appreciates the public's patience as the station implements the requirements of the new license.

For questions or additional information, please visit **duke-energy.com/lakes** or contact Duke Energy Lake Services at **800.443.5193**.