

Bridgewater Hydro Station Work Requires Lowering Lake James in 2010-2011



To comply with revised federal guidelines, a program is under way to make improvements to the three dams that form Lake James. This is part of a nationwide effort by the Federal Energy Regulatory Commission (FERC) to increase the safety of dams during severe earthquakes. Construction of seismic improvements is complete at Paddy Creek Dam and Catawba Dam; construction is scheduled to begin on Linville Dam in early 2012.

The Bridgewater Hydro Station, located at the toe of the Linville Dam, has to be relocated to facilitate construction of the seismic improvements on the dam. Construction of a new powerhouse further downstream is under way. After completing the new powerhouse, the old powerhouse will be removed. Repairs needed on the existing intake and connecting the new powerhouse require Duke Energy to operate Lake James at lower levels in late 2010 through the first half of 2011.

Duke Energy recognizes this will impact businesses and recreation on Lake James and wishes to provide as much advanced notice as possible. We appreciate your understanding of this federally-required project.

- Intake work (January-February 2011) – Lake James will be at about 85 feet (with 100 feet being full pond). Duke Energy will gradually lower the lake beginning November 2010 to achieve that level.
- Walleye spawning (March-May 2011) – Provided intake repairs are complete, Duke Energy will allow the lake to fill to about 92 feet to support spring fish spawning and to provide some lake access for recreation.
- Connecting new powerhouse (late May-September 2011) – Based on expected seasonal rainfall next spring, Duke Energy will draw Lake James down to about 90 feet or lower starting in early May 2011. This minimizes high water risk later, since the Bridgewater Hydro Station will not be operating during this time. The lake will fill depending on the amount of rainfall received; this may result in spilling over the Paddy Creek and Catawba Dam spillways. We expect the new powerhouse to begin operating in October 2011.

Dam Safety

Duke Energy dams are safe and inspected routinely by Duke Energy personnel, annually by the FERC and every five years by an independent engineering consultant. This project is required by the FERC and is part of its nationwide effort to improve the performance of existing dams during severe seismic events.

Dock and Boat Preparations

Lake residents and businesses often elect to conduct dock, slip or shoreline improvements during times of lower lake levels. Please contact Duke Energy Lake Services at 800-443-5193 to obtain permits required to conduct work inside the lake boundary. Be thinking now about any arrangements needed for boat storage or transportation. Please be mindful how lower lake levels may affect your dock, and take precautions to protect it. Contact your pier contractor for advice.

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Steer Clear: Minimum Flow Valve

During the Bridgewater Hydro Station outage from late May through September 2011, Duke Energy will provide supplemental flow downstream to minimize impacts to aquatic life and to support downstream water user needs. We will operate the Minimum Flow Valve on the Catawba Dam, which flows at 75 cubic feet per second. Because this water is flowing at high pressure, please heed signage and avoid this area for your safety.

Duke Energy

Corporate Headquarters
526 South Church Street
Charlotte, NC 28202-1802

www.duke-energy.com

Frequently Asked Questions

Why is a draw-down of Lake James necessary?

Duke Energy is preparing for a federally-required construction project on the Linville Dam in 2012 to enhance stability in the event of a severe earthquake. A new powerhouse, which contains the turbines for hydroelectric power, is under construction now. Repairs needed on the existing intake and connecting the new powerhouse require Duke Energy to operate Lake James at lower levels from late 2010 through the first half of 2011. Duke Energy understands this impacts business and recreational interests on the lake, and we examined many alternatives to minimize this project's effect on the community.

Is the Linville Dam safe?

Yes. The Linville Dam and all other Duke Energy dams are inspected regularly and are safe. This federal program is intended to improve the performance of existing dams during severe seismic events. It is unlikely our region would experience an earthquake the size of the ones used in FERC evaluations, but public safety is our top priority for communities surrounding our reservoirs.

Will downstream municipal water intakes be impacted by this project?

Water released through the Minimum Flow Valve (MFV) on the Catawba Dam will supplement rainfall and natural stream flow downstream of Lake James and through the Upper Catawba River Basin to ensure municipal water intakes are not affected by lowering Lake James.

How will Duke Energy manage high-water events while connecting the new hydro station?

Duke Energy has modeled historical data to see how past periods of normal, wet and dry weather could affect lake management decisions during this project. During May 2011, Duke Energy purposefully will lower the lake to a point 10 feet below full pond to create storage capacity for rainfall while the hydro station is out of service. This will serve as added protection to downstream residents to delay and lessen potential high water impacts.

Duke Energy's Hydro Operating Center is staffed around the clock and expertly manages the Catawba-Wateree lake system as a whole by continually monitoring conditions and keeping the safety of downstream residents an utmost priority.

What provisions are you making for fish and other aquatic life during lower lake levels?

Duke Energy will hold the lake at about 92 feet during spring walleye spawning. We also will operate the Minimum Flow Valve (MFV) on the Catawba Dam to provide additional flow downstream. The water flowing from the MFV is at high pressure; please be cautious and heed signage for safety.

The new powerhouse provides a unique opportunity to improve aquatic habitat long term as well. The state-of-the-art turbines that will be installed are designed to increase dissolved oxygen and provide a continuous flow of water through the hydro station.

Will I be able to have boat access through marinas, public access points or my own personal dock/pier?

Unfortunately, boat access on Lake James will be limited from December 2010 through summer 2011. Some public access points and deeper marina docks may be usable in spring. Boaters with shallower access points should be prepared for the boat storage or transportation arrangements you may need. Please be mindful how lower lake levels may affect your dock, and take precautions to protect it. Contact your pier contractor for advice. Duke Energy will monitor lake levels at public access ramps carefully and will temporarily close those that cannot support safe access. Canoe, kayak and small boat access should remain unaffected.

Do I need to take any special safety precautions while on Lake James?

Since lower lake levels from late 2010 through the first half of 2011 may expose hazards normally covered with water, please use caution while recreating on Lake James.

Please note, time frames and lake levels are approximations, as weather may affect construction progress and lake management decisions.

Lake Level Updates

For updates during this project, please visit www.duke-energy.com/lakes/levels.asp or call 800-829-LAKE (5253) for special messages.

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