NEWS RELEASE

TVA Releases Helene Data

- TVA's flood mitigation strategies prevented approximately $406 million of potential damages.
- Dams in the TVA system stored 404 billion gallons of water, enough to fill 612,000 Olympic-sized swimming pools.
- Two months of normal rainfall fell in 3 days on the Tennessee River Watershed.
- Click for downloadable video and audio from interviews with James Everett, TVA's General Manager of River Management. Password to access the link is: TVAvidHELENE24

KNOXVILLE, Tenn., – The Tennessee Valley Authority released data Monday that was collected during, and after, Tropical Storm Helene that provides insight into the magnitude of the storm that swept across the Appalachian region beginning Friday, September 27.

Significant and catastrophic flood damage to communities occurred throughout northeast Tennessee and western North Carolina. These were areas where TVA flood control operations could not mitigate impact. Our hearts go out to these communities. When that floodwater began flowing into the Tennessee River watershed, TVA's network of dams, and employees, were already at work to protect people downstream.

"Greene County was aided immeasurably by engineer representatives from TVA from the very early stages of the storm and flooding affecting Greene County," said Greene County Mayor Kevin Morrison. "TVA's timely, accurate, and wise forecasting and professional advice to our leadership team on the conditions of the Nolichucky River and the Nolichucky Dam saved lives. We are eternally grateful to the TVA team for standing side by side with us throughout this disaster, recovery and rebuild."

Providing flood control of the Tennessee River is a core mission of TVA and has been since its inception more than 91 years ago. Evaluating rainfall and stream flow data from across the Valley provides engineers in TVA's state-of-the-art River Forecast Center the information to make operational decisions to minimize flood impacts along the river system 24 hours a day, seven days a week, 365 days a year.

Using computer modeling, TVA tracks what might have happened without dams and flood mitigation as a way of helping determine how well its system is operating. That data collectively informs "flood damage averted" calculations.

Data from this event shows that flood mitigation strategies enacted by TVA prevented approximately $406 million of potential damages in Lenoir City, Chattanooga, Kingsport, Elizabethton, Clinton, and South Pittsburg. Since TVA's inception in 1933, more than $10 billion in potential flood damage has been averted.

City	Potential Helene Damage Averted
Chattanooga	$186,000,000
Clinton	$2,600,000
Elizabethton	$5,100,000
Lenoir City	$136,000,000
Kingsport	$75,200,000
South Pittsburg	$1,200,000

Data Source: River Forecast Center

"This was some of the highest flood levels we've seen in the Tennessee Valley in its entire history," said James Everett, TVA's general manager of river management. "We saw a record amount of flooding and we saw tremendous amounts of rainfall that caused that flooding. TVA's dams and the people who manage these dams stepped up to that challenge and managed this record setting event."

TVA's ten large tributary reservoirs stored 404 billion gallons of water during the weather event – enough to fill 612,000 Olympic-sized swimming pools. Two months of normal rainfall in just 3 days to the Tennessee River Watershed.

The reservoir system and its ability to store water during floods led to significant overall reduction in flood crests in communities along the river system. Without TVA's system of dams, the river stages at Lenoir City, TN, and Chattanooga, TN, would have been about 21 to 23 feet higher than the observed levels during Helene. Nolichucky Dam withstood nearly twice the flow of Niagara Falls.

"No one could have imagined the destruction Hurricane Helene would unleash on our community and our utilities. One of the first calls I received was from TVA to understand how dire our situation was. TVA provided valuable support, manpower, and equipment to aid in our restoration of power and early damage assessment at our wastewater treatment plant," said Lee Brown, Erwin Utilities President & CEO. "TVA enabled us to move quickly and efficiently in our

work to recover from Helene. Our partnership with TVA and other local power companies is the perfect example of the benefits provided by Public Power."

Additional Facts

- Since 2010, TVA has invested more than $1.23 billion in dam safety projects.
- Water flow over the Nolichucky Dam at the height of flooding was 1.3 million gallons per second. The dam did not fail and remains stable. The dam's old powerhouse has been removed because of damage caused by flood waters - the facility hadn't been in service since 1972.
- Between Sept. 29 and Oct. 5, TVA's hydro units generated an average of 2,869 megawatts of clean energy per day, which is 1,600 megawatts greater than the average during the same timeframe last year.
- The seven-day rainfall average in the eastern Tennessee River Valley on September 29 was 7.67 inches, which is approximately ten times the normal amount of rainfall that occurs in a normal week in late September.
- Douglas Dam was instrumental to help prevent downstream flood damage. Between Sept. 26 - Sept. 29, 182 billion gallons of water made Douglas Lake rise almost 22 feet in 3 days. That is enough water to fill Neyland Stadium in Knoxville 661 times.
- Douglas Dam set maximum hourly flow record of about 475,000 gallons per second set on Sept. 29. Previous record of about 400,000 gallons per second set on May 8, 1984.
- The French Broad River in Newport, Tenn., reached a stage of 23.34 feet, just more than 13.34 feet above Flood Stage and just under the flood of record elevation of twenty-four feet. This is the largest flood on the French Broad River at Newport since 1867.
- The Pigeon River at Newport, Tenn., reached a new record stage of 28.9 feet, 20.9 feet above Flood Stage and surpassing the previous 1904 flood of record by 5.5 feet.
- The Watauga River at Elizabethton, Tenn., reached 5 feet above flood stage and is the highest flood level in Elizabethton since 1940.
- TVA's Watauga Dam on the Watauga River in Carter County, Tenn., east of Elizabethton, Tenn., reached an elevation of 1,970.29 feet, which broke the previous record by about three feet.
- The Doe River at Elizabethton, Tenn., reached 10.78 feet — nearly 3 feet above Flood Stage and just inches below the flood of record in 1998.
- TVA is continuing work to support communities and local power companies in recovery efforts.

The Tennessee Valley Authority is the nation's largest public power supplier, delivering energy to 10 million people across seven southeastern states. With one of the largest, most diverse, and cleanest energy systems – including nuclear, hydro, solar, gas, and advanced technologies – TVA is a leader in our nation's drive toward a clean energy future. In addition to operating and investing its revenues in its electric system, TVA provides flood control,

navigation, and land management for the Tennessee River system, and assists local power companies and state and local governments with economic development and job creation. Learn more about how TVA manages the Tennessee River system.

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