NEWS RELEASE

U.S. ARMY CORPS OF ENGINEERS BUILDING STRONG®

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Corps reuses water to create electricity by increasing pump back operations at Russell Dam

SAVANNAH, Ga. – This year marked a milestone in water management on the upper Savannah River when the U.S. Army Corps of Engineers Savannah District began operating three reversible turbines at the Richard B. Russell Dam near Elberton, Ga., throughout the summer. Reversible turbines allow the Corps to re-use water already stored in the reservoir system multiple times to increase hydropower production.

Since 2002 the Corps has restricted use of the reversible turbines in the summer to no more than two units at a time to protect fish habitat downstream of the Russell Dam in the upper reaches of the J. Strom Thurmond reservoir. Recent installation of an oxygen injection system in Thurmond Lake has enhanced fish habitat and lifted the restriction on reversible or "pump back" operation.

The reversible units differ from regular generators in that, at night, when electrical power demands are low, they can operate in reverse direction to pump water from below the dam back upstream into Russell Lake. Then, the next day when peak power demand occurs, the additional water stored overnight can be re-used to generate electricity.

"The Richard B. Russell Project's pump back capability is even more critical in hot, dry summers like we are experiencing now," said Keith Crowe, Operations Project Manager at the Richard B. Russell Dam and Lake Project. "We can provide more peak-demand electricity with the same amount of water again and again, which benefits the public."

The Corps is operating three of the four pump back units this summer. The fourth unit will join the others next year after workers complete critical maintenance on it.

Combining the output of all eight turbines at Russell Dam (four reversible and four conventional), the dam has a capacity of 668 megawatts of clean, renewable energy, making it the largest Corps power plant in the eastern United States. In fact, the dam can supply enough electricity to meet the annual energy needs of 60,000 households, according to William J. Palmer, of the Savannah District's Hydropower Technical Center.

The Russell Dam is one of three multi-purpose hydropower dams the Savannah District manages on the Savannah River. The Hartwell Dam and Lake Project is 30 miles upstream from the Russell Dam, while the J. Strom Thurmond Dam and Lake Project is 37 miles downstream. The Corps manages the three dams and reservoirs as one balanced system for the congressionally-authorized purposes of flood risk management, navigation, water quality and supply, fish and wildlife management, hydropower production and recreation.

Read more about hydropower production at Russell Dam on the Savannah District website at http://www.sas.usace.army.mil/lakes/russell/hydropower.html

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ABOUT US: The U.S. Army Corps of Engineers' Savannah District manages three lakes and hydroelectric dams along the Savannah River. It also oversees a multi-billion dollar military construction program at 11 Army and Air Force installations in Georgia and North Carolina. Corps' projects range from barracks, hospitals and clinics to maintenance facilities, headquarters buildings and aircraft hangars. The Savannah District also has oversight and maintains additional civil works projects – from the Savannah and Brunswick harbors to the Atlantic Intracoastal Waterway.

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