

Service and its Partners Remove Another Dam in Greater Birmingham Area, Improves Aquatic Habitat

By Denise Rowell

Big Canoe Creek is home to some of America's rarest aquatic species. A project sponsored by the U.S. Fish and Wildlife Service (Service) is already dramatically improving water quality and habitat of the creek, giving those imperiled species a better chance at recovery.

The Service joined its partners in removing the Goodwin's Mill Dam from Big Canoe Creek. The dam was constructed in the early 1900's to impound the waters of Big Canoe Creek to power a grist mill. That mill was abandoned in the 1930's, but the dam has continued to impound the water and create a fish passage barrier. "Recent surveys show a dramatic disparity in fish species diversity above and below the dam, highlighting the dam's impact on water quality and habitat suitability. In addition to blocking movement of fish, dams create deep pools that can fill with sediment, reduce oxygen levels and raise the temperature of the water," explains Service biologist Eric Spadgenske.

The removal of Goodwin's Mill Dam was one of the first projects identified by the Panama City Field Office's Strategic Habitat Unit (SHU) Initiative. The SHU initiative is a strategic way biologists look at rivers and streams in an effort to keep them in good condition for both fish and wildlife, and humans.

Chris Metcalf is a biologist with the U.S. Fish and Wildlife Panama City Field Office. A stream restoration expert, Chris was the Project Design and Construction Manager. "Removal of the Goodwin's Mill dam will promote hydrologic and habitat connectivity to support a fully functioning stream system and access for recreational users," explained Metcalf.

The project won't just restore fish passage. It will also benefit at least two federally protected mussels: the southern pocketbook (*Pleurobema decisum*) and the triangular kidneyshell (*Ptychobranhus greenii*). In addition, this restoration effort will also benefit two species recently petitioned for federal listing, the Canoe Creek Clubshell (*Pleurobema atearni*), and a fish species called the Trispot Darter (*Etheostoma trisella*). "Big Canoe Creek is a hot spot for aquatic species and is one of our target areas for restoration. Many people may not realize that it has also been designated as Critical Habitat for several federally listed mussels," explains Service Biologist Jeff Powell.

The Nature Conservancy of Alabama has played a pivotal role in the project. “It is a real pleasure to collaborate with the U.S. Fish and Wildlife Service, partners and private landowners to improve conditions for the people along the creek and the critters living in it. The Service brings highly skilled staff to the project that makes this a low-cost project with high returns. Many folks have pitched in to make these restoration efforts come together quickly and efficiently” said Paul Freeman, Aquatic Ecologist with The Nature Conservancy in Alabama.

Doug Morrison, President of Friends of Big Canoe Creek, is anxious to see the manmade barrier being removed, allowing the creek to return to its natural state. “I have seen how the water diverted by this dam creates a hazard for canoeists and destroys the stream banks during high flows. Removing the dam will allow safe passage for people as well as the fish. I am looking forward to seeing this creek free flowing once again, as nature intended,” says Morrison. “There is also a safety concern as kids have been seen trying to deconstruct it, prying huge rocks loose and it is already unraveling on its own,” reiterates Morrison.

The removal of the Goodwin’s Mill dam would not be possible without our team of partners and stakeholders, including the Alabama Department of Conservation and Natural Resources, Geological Survey of Alabama, The Nature Conservancy, the Coosa Riverkeeper, Friends of Big Canoe Creek, and most importantly, the private landowners who have embraced the project. Adjacent landowner Barbara Lovell states, “I’ve owned the property for more than 28 years, and I am thrilled to see the water flowing where it should be naturally. When the end of the dam fell apart a few years ago, the water started shooting through the gap like a rocket. I am tired of losing my property due to the erosion”.

The Service’s Fisheries Program and Heavy Equipment Operator Team dismantled the dam over the course of several days, and repaired downstream banks to prevent erosion. The Southeast Regional Endangered Species Listing Office also played a role in the project. Next steps include monitoring the habitat conditions in the creek and the response of the fish and mussel communities. Follow our progress on the Panama City Field Office Facebook page, <https://www.facebook.com/usfwspanamacity>.