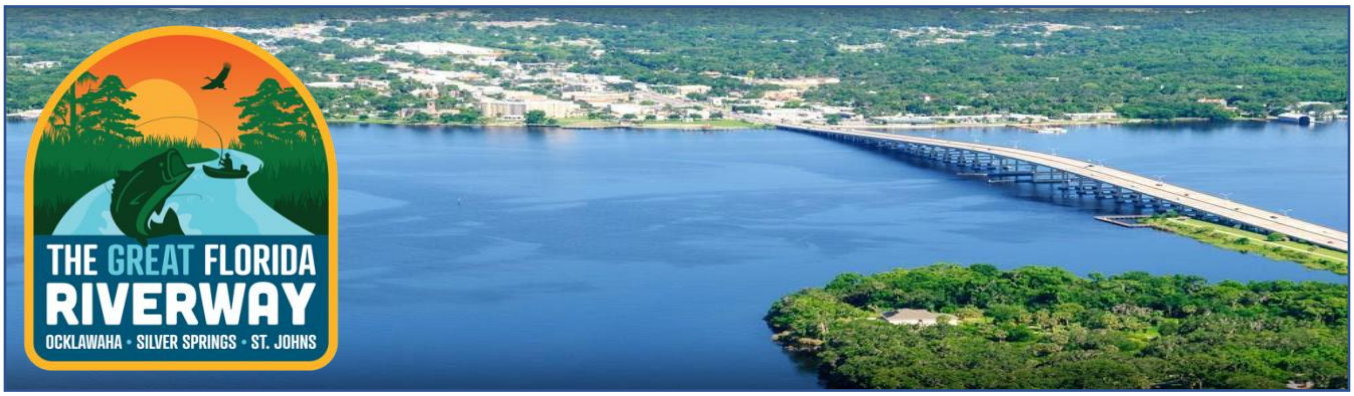


The Great Florida Riverway

Ocklawaha River * Silver Springs * St. Johns Estuary

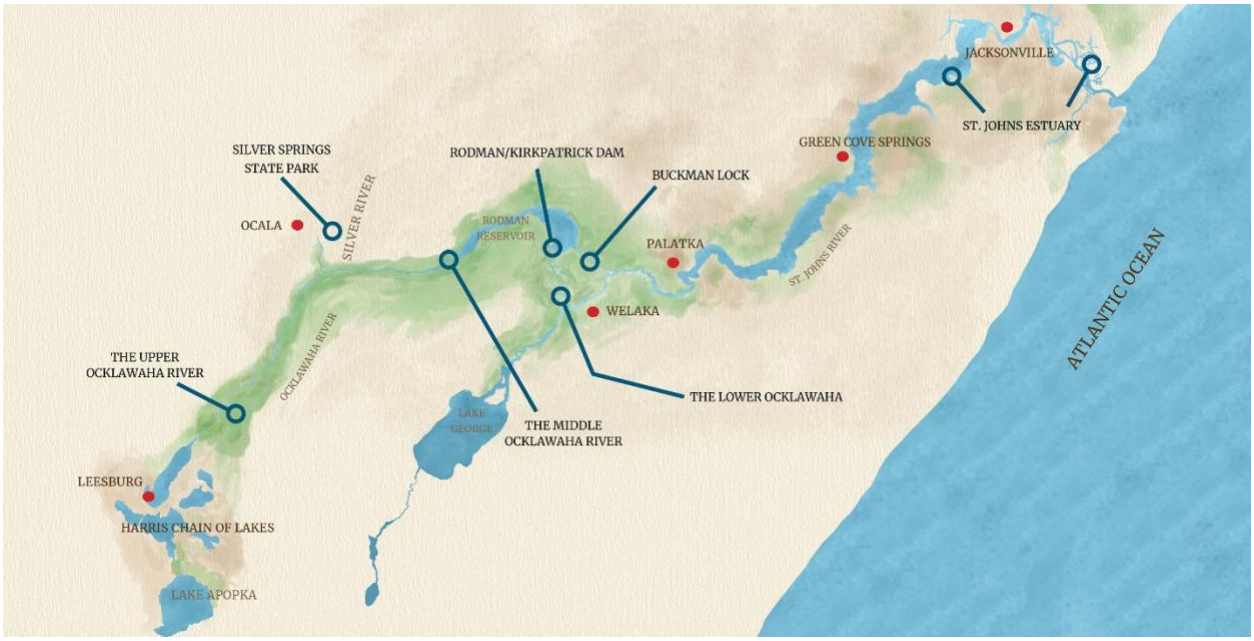
Three Rivers, Fifty Springs, One Project

The Ocklawaha River is the heart of what some call the Great Florida Riverway, a vast 217-mile system beginning at Lake Apopka, flowing north along the Ocklawaha River past Silver Springs, and ending where the lower St. Johns River meets the Atlantic Ocean. The river was dammed in 1968, severing this scenic riverway and historic steamboat trail.

The dam was constructed for the Cross Florida Barge Canal, which was never completed. It blocks the historic and natural river route for fish, manatees and boaters between Silver Springs and the Atlantic Ocean. The project destroyed 7,500 acres of forested wetlands, 20 springs and 16 miles of the Ocklawaha River. Water, forest, fish and wildlife and recreation damages continue today, all the way from Silver Springs, down the Ocklawaha River above and below the dam, along the Welaka and Palatka waterfronts and in the 100-mile St. Johns Estuary to the Atlantic.

Scientists agree that reuniting this river system by breaching a portion of the Rodman/Kirkpatrick Dam, creating a free-flowing river, is crucial to improving the environmental health of the St. Johns and Ocklawaha rivers, Silver Springs, and the Atlantic Fishery.

There are few people that know more about this system than Ed Lowe, Ph.D., who served as director of environmental services and then chief scientist at the St. Johns River Water Management District (SJRWMD) for more than 30 years. His view is that, "Breaching the Rodman Dam near Palatka would reunite and help restore four ecosystems: the Ocklawaha River, Silver Springs, the Lower St. Johns River and the coastal Atlantic Ocean of the southeastern United States."



The Dam and Rodman Reservoir's Impact on the Palatka and Welaka Waterfronts

Some anglers and business interests still support the dam and 9,500-acre fishing pool, even though Florida Department of Environmental Protection data has shown that annual use of the Rodman Reservoir recreation sites has been on a downward trend since 2010, declining by an average of 3,627 visitor parties per year. Several of the ramps and the impounded river are often not passable due to invasive aquatic plant buildup requiring thousands of dollars of herbicide treatments annually. The invasive plants thrive on the seasonally warm, slow-moving water in the Rodman Reservoir. A restored natural river would be as much as 10 degrees cooler in the summer, as well as significantly clearer and less prone to invasive plant blockages and harmful algal bloom outbreaks.

Many Putnam County residents do not realize "the negative impacts the Rodman Reservoir and dam are having on our valuable downtown Palatka and Welaka waterfronts," explained Dean Campbell, retired director of SJRWMD's Lower St. Johns River Project. "The St. Johns River, near Palatka and Welaka, is being hurt by receiving less cool, clear, freshwater than it would receive with a free-flowing river."

Submerged aquatic vegetation, or underwater grasses, are essential to a healthy fishery, manatee habitat and the commercial shellfish industry. Seagrass scientist Bob Virnstein, Ph.D., explains that grasses that disappeared following Hurricane Irma have not been able to properly grow back due to lack of light from reduced water clarity.

"The grasses need lots of light to grow. Additional clear water from a restored Ocklawaha River would help us recover these grasses from Welaka north along the St. Johns River Estuary," he shared.

If the reservoir is restored to the natural river, Putnam County could still be the bass capital of the state. The St. Johns River within a 50-mile radius of Palatka is ranked fourth in the Southeastern United States by Bassmaster and was the site for a national tournament earlier this year. A free-flowing Ocklawaha could help sustain this fishery. The Rodman Reservoir is ranked eighth.

A restored Ocklawaha River could regain its fishing legacy by becoming a healthier fishing location as migration paths are restored for species such as striped bass and channel and white catfish.

Silver Springs Continues to Suffer from the Rodman/Kirkpatrick Dam

The Silver Springs Basin Plan identified restoration of the Ocklawaha, reconnecting and restoring the Silver and Ocklawaha rivers, as one of three critical goals to improving the health of Silver Springs. Bob Knight, Ph.D., executive director of Florida Springs Institute, shared, "We can't fully restore Silver Springs without a free-flowing Ocklawaha River."

The building of the Rodman/Kirkpatrick Dam blocked natural fish migration from the St. Johns River and Atlantic Ocean, negatively impacting the fish and aquatic species that made the glass-bottomed boat rides so famous. Gone are the magnificent channel and white catfish, the Atlantic striped bass, American eel and large schools of mullet that helped clean the once beautiful green eel grass.

The desirable fish population at Silver Springs is about one half of what it once was, Knight said. A recent fish study completed by the Florida Springs Institute revealed that exotic blue tilapia are having an explosion in Silver Springs. Knight suggested that if the Ocklawaha was restored, "I would like to see a boom and bust of the exotic tilapia with the return of striped bass and channel catfish." He predicts that those two natural predator fish could help knock back the tilapia population.

Although the Buckman Lock allows a few aquatic species to enter from the St. Johns to the Ocklawaha, it does not provide a productive migratory connection for fish and shellfish from the Atlantic and St. Johns River to the Ocklawaha River and Silver Springs. Many of the historic migratory fish are absent or are rarely seen in the upper reaches of the Ocklawaha and Silver Springs.

Although around 100 unique manatees have made the precarious journey to Silver Springs through the metal and concrete structures at the Buckman Lock during recent years, scientists predict that hundreds more manatees would make Silver Springs and the restored springs of the Ocklawaha their home if they could travel along the natural Ocklawaha River in a reconnected system. Silver Springs could be the largest inland

manatee viewing spot in the state. Silver Springs, a Community Redevelopment Area, could benefit economically. (See more on page 12).

More than 30 springs are found in the upper section of the Silver River, which provides approximately 66% of the Ocklawaha River's flow. The main boil is one of the largest artesian springs in the world. Along the Ocklawaha River in Marion and Putnam Counties, 20 more springs are submerged under the weight of the water held back by Rodman/Kirkpatrick Dam.

Twenty springs of the Ocklawaha would be uncovered permanently with partial restoration of that river. Two of the largest are Cannon Springs and Marion Blue Springs, both third-magnitude springs. Several could become havens for manatees and all would provide thermal cooling of the river and recreational opportunities. Freeing the springs and eliminating evaporation off the reservoir would provide an approximate 150 million gallons a day of additional natural downstream flow from Welaka to Jacksonville. This flow, more than the daily water use of the City of Jacksonville, could help restore the St. Johns River Estuary from Welaka to Jacksonville.

The St. Johns River Estuary: A Struggling Nursery Grounds for Fish and Shellfish

The last 100 miles of the St. Johns River, beginning at Welaka and flowing north to Jacksonville is an estuary ecosystem. Flow from the Ocklawaha historically helped maintain the salt and freshwater balance of the estuary needed for healthy habitats. This estuary supports healthy and economically important fisheries and maintains good water quality. The increased flow from a restored Ocklawaha will enhance resilience for future sea level rise.

Estuaries are essential nursery grounds for 90% of the commercially important species we like to eat, such as crabs, shrimp, and oysters, as well as many species of fish. With reduced freshwater flows from the Ocklawaha River due to the Rodman/Kirkpatrick Dam combined with increasing saltwater intrusion, the submerged aquatic vegetation is disappearing, the cypress forests are stressed, and species are declining.