

1-1-1990

Ocklawaha River Restoration: Benefits for the Florida Environment

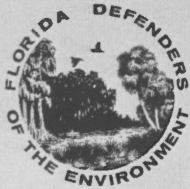
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Florida Defenders of the Environment, "Ocklawaha River Restoration: Benefits for the Florida Environment" (1990). *Environment and Natural History Publications*. 25.
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OCKLAWAHA RIVER RESTORATION

Benefits for the Florida Environment

Perpetuating the Rodman Reservoir's fishery comes at a tremendous economic and environmental cost that will continue forever. In contrast, a free-flowing, restored Ocklawaha River will maintain its ecological integrity without costly inputs, providing an excellent fishing spot surrounded by priceless natural charm. This document summarizes the current costs to animals and habitat caused by maintaining a dammed river system, and lays out the benefits of restoration.

Fish and Wildlife

- ◆ Rodman Reservoir's impact on aquatic species is summed up by a Florida Department of Environmental Protection (DEP) study which concluded that **maintaining Rodman Reservoir results in "high fish biomass production at the expense of biodiversity."**
- ◆ Removal of Rodman Dam **will not stop** recreational and subsistence fishing. The Ocklawaha River has always been famous as a great fishery, especially for huge bass and red-breasted brim.
- ◆ **The dam prevents the historical migration of several aquatic species upstream.** Stripped bass, a major sportfish, eels, mullet, shad, channel catfish and other migratory species are no longer present in the system in the numbers they once were, but are expected to return after restoration.
- ◆ **Management of the reservoir for sport fishing has negative consequences to the surrounding environment.** In 1995, the pool had to be raised two feet in order to prevent a major fish kill because of low oxygen levels. As a result, thousands of acres of state owned forests were flooded, killing or temporarily driving out wildlife. The reservoir is continually plagued with oxygen level problems resulting in at least two major fish kills in recent years.
- ◆ Silver Springs, a major tourist attraction and natural wonder, has been adversely affected by damming the river. Most of the large fish that once could be viewed from glass bottom boats are no longer present. Therefore, the owners of Silver Springs and the Silver River Museum director have actively supported restoration.
- ◆ **Manatees which historically used both the Ocklawaha and the springs flooded by the reservoir are blocked from the upstream watershed.** Occasionally some do get through the lock system. At least nine have died in the lock and dam structures.

Habitat

- ◆ Restoration not only frees a flowing river, but also saves 16 miles and 7,500 acres of floodplain forest, with its creeks and tributaries. Floodplains are one of the most unique and threatened habitats in Florida. We will be restoring a significant portion of a valuable regional ecosystem. **All plants and animals lost from this area will return after restoration and will benefit.**
- ◆ Forest destruction around Rodman Reservoir did not end when the dam was finished. DEP studies confirm that the several thousand acres of forests permanently flooded by the pool “will eventually be replaced by aquatic weeds, marsh, and open water because germination cannot occur in permanently wet sites” unless Rodman Reservoir is drained or drastically lowered. These forests are filled with living dead trees, unable to reproduce and ultimately doomed to die without offspring.
- ◆ **The more than 20 springs drowned by the reservoir cannot provide the unique spring habitat favored by so many forms of plant and animal life.** Famous Blue Springs, with a pool the size of football field and a spring run five miles long, could easily be seen during a recent drawdown of the reservoir. Restoration of the river would in all likelihood return many of these springs to the people and wildlife of Florida.
- ◆ **Rodman Reservoir traps nutrients, cutting off the rich supply of particulate nutrients that had historically flowed out of the Ocklawaha’s floodplain forest to the St. Johns River.** Times of high water would periodically wash particulate nutrients downstream to enrich and enhance the St Johns River. These nutrient pulses provided food for the base of the aquatic foodchain in the St. Johns River.
- ◆ In addition, as stated in the DEP report, “Under the restoration the Ocklawaha floodplain would be reconnected. **A natural riparian corridor would be restored, linking the Ocklawaha River and Ocala National Forest... to areas to the north... and to the lower Ocklawaha River and the St. Johns River systems.**”
- ◆ Throughout North Florida, the state has embarked on an ambitious program of land protection and restoration. The goals are to restore natural functioning systems, native habitats, and native species’ communities. Above and below Rodman Reservoir the Ocklawaha River is undergoing restoration. **Continued maintenance of the Reservoir is inconsistent with the state’s land management and restoration goals in the region.**
- ◆ The Florida Greenways Commission Report states that the “Florida greenways system should be planned and managed to conserve native landscapes, ecosystems, and their species.” As part of the Cross Florida Greenway, Florida’s premier greenway, **a decision to keep Rodman would mean sacrificing the goals and visions guiding the development of the Greenway to the needs of the local fishing interests in Putnam County.**

Ocklawaha River Restoration: A Summary

History: The campaign to save the Ocklawaha River has been running for over thirty years. In the 1960's, citizens from all over Florida rose up to protect the Ocklawaha from completion of the Cross Florida Barge Canal, but with only partial success. Rodman Dam was closed in 1968, flooding 16 miles of the Ocklawaha River. In order to prevent destruction of the next 20-mile section of the Ocklawaha River Valley by the closing of Eureka Dam, the Environmental Defense Fund filed a legal challenge in federal court to halt construction. On January 15, 1971, a federal judge entered a temporary injunction stopping work on the canal pending completion of an environmental impact statement. On January 19, 1971, the canal project was halted by President Richard Nixon, who explained "A natural treasure is involved in the case of the Barge Canal -- the Ocklawaha River -- a uniquely beautiful, semi-tropical stream, one of a very few of its kind in the United States, which would be destroyed by construction of the Canal."

In 1976, after completing a restudy of the economic benefits and environmental costs of the project, the Corps of Engineers abandoned the project, and recommended that the river be restored and formally designated as a "study river" for possible inclusion in the National Wild and Scenic River system. But efforts to remove Rodman Dam and restore the Ocklawaha floodplain forest could not begin until Congress officially deauthorized the federal navigation project. Supporters of the canal project blocked that action until 1990, when President Bush signed legislation deauthorizing the project. In 1992, all former federal canal lands, including Rodman Dam and Buckman Lock, were turned over to the State of Florida for the Cross Florida Greenway.

Since 1992, despite unanimous approval by the Governor and Cabinet, efforts to fund restoration of the Ocklawaha have been blocked in the state legislature by Senator George Kirkpatrick. In 1993, \$900,000 was appropriated to complete a massive analysis of the benefits and costs of restoration ("DEP Study"), which supported restoration. In 1997, using a \$641,000 grant from the US EPA, the Florida Department of Environmental Protection hired the consulting firm Post, Buckley, Schuh and Jernigan to prepare the necessary engineering plans, environmental impact statement, and state and federal permit applications for restoration ("Post Buckley Plan"). In December, 1997, they were submitted. When the permits are approved, which is expected to happen during the summer or fall of 1998, FDEP will begin to gradually drain Rodman Reservoir by opening the spillway at Rodman Dam. This gradual drawdown will allow the newly-emerged floodplain to begin the revegetation process. Over the next three years, FDEP will stabilize or remove accumulated sediments, plant trees to accelerate reforestation and eventually create an opening in Rodman Dam where the Ocklawaha's original channel was blocked, allowing the Ocklawaha River to once again run free.

Rodman Dam Continues to Harm the Environment: Rodman Dam and Reservoir continue to disrupt the functions of the Ocklawaha River ecosystem and to cause additional environmental harm. Rodman impoundment displaces approximately 7,500 acres of diverse, forested floodplain habitat. This interrupts the ecological connectivity of floodplain forests of the Cross Florida Greenway and fragments an important wildlife corridor. Rodman Dam continues to block the historic pathway of many species of migratory fish and manatees. The dam spillway and Buckman

Lock are the main causes of manatee deaths in the area (at least 9 of 15 manatee deaths recorded from 1974-1996). Rodman impoundment also covers 20 natural artesian springs which once flowed into the Ocklawaha. Blue Springs, with a pool the size of a football field and a five-mile run down to the Ocklawaha River, was once a popular recreation area, but is now submerged beneath Rodman. These natural springs are one of Florida's most valued natural attractions: a comparable spring run in the Ocala National Forest, Juniper Springs, attracts over 150,000 visitors each year.

Currently, there are several thousand acres of state-owned forested wetlands permanently flooded by the Rodman impoundment. Tree species that can't tolerate living in standing water have died out, leaving almost pure cypress. When these remaining trees die, this forest will die with them, because new trees can't germinate and sprout in standing water. Rodman is dominated by such invasive, exotic aquatic weeds as hydrilla, water lettuce, and water hyacinth, which creates ongoing problems with navigation in the impoundment and river, and has caused serious water quality problems leading to massive fish kills in 1985 (8.5 million dead fish) and 1988 (2.5 million dead fish). To prevent fish kills, reservoir managers have to lower water levels and apply chemical herbicides to kill back aquatic vegetation, then raise water levels to increase dissolved oxygen into the water. Raising the water level floods thousands of acres of public forest, driving out terrestrial wildlife that live and nest along the artificial shoreline.

Economic Cost of Maintaining Rodman Reservoir: The 1995 DEP Study included a comprehensive economic analysis of the costs of maintaining Rodman as an artificial lake. DEP concluded that "annual cost estimates within the range of \$400,000 and \$500,000 are appropriate to adequately and safely continue full lock and dam operations from year to year." The DEP study also concluded that if Buckman Lock and Rodman Dam were to remain 100 percent operational and retained, approximately \$2 million to \$2.5 million in major repairs and maintenance would be needed before the year 2000. The final conclusion of the DEP Socio-Economic Study was that the average annual costs of keeping Rodman Reservoir over the next 10 years, including necessary repairs and maintenance, was \$685,480 per year.

Costs of Restoration: The Post Buckley Plan for restoration estimated that restoration of the Ocklawaha River would cost approximately \$9-12 million. This would be a one-time cost, and yearly costs for maintenance of the restored Ocklawaha would be minimal. Because the barge canal project was a federal project, and much of the floodplain is part of the Ocala National Forest, there is support for the federal government to share in the cost of restoration. It was reported in the media that Senators Graham and Mack have been trying to find federal funding to assist in the restoration. Senator Graham was quoted as saying: "I believe that because the federal government created the problem, federal support is appropriate to correct the problem."

Environmental Benefits of Ocklawaha Restoration: Removing Rodman will allow migratory fish to return to Silver Springs and the upper Ocklawaha, remove a significant source of manatee deaths, reestablish 7,500 acres of floodplain forest in a significant wildlife corridor, allow 20 springs to flow again and restore 16 miles of river. A free-flowing Ocklawaha River will maintain its ecological integrity without costly inputs.