



Ocklawaha Restoration: Frequently Asked Questions

Question #1: Will draining the reservoir down to the natural Ocklawaha River channel create a big mud hole?

Restoring the river will not leave the Rodman pool as a mud hole. Opened-up banks along the river will quickly form compacted areas for shore fishing and camping like you see during the short drawdowns done every 3-4 years. The flow of the river will establish itself along the river's natural path. Alongside the natural river, over 7500 acres of wetland forest will return beginning as marsh and transitioning to mature bottomland hardwood forest. Cypress, black gum, and other trees will sprout quickly as seen during drawdowns. The restored forest and river will attract an abundance of fish and wildlife and offer expanded recreational opportunities like hiking, primitive camping, wildlife viewing and the potential for managed hunting areas. A free-flowing river would also restore the flow of 20 natural springs of varying sizes.

Question #2: Will lakes and wells will dry up if the Ocklawaha is restored?

The St. Johns River Water Management District Technical Fact Sheet SJ2017-FS2 shows that drawdowns in Rodman Reservoir have a small impact on groundwater levels in wells located adjacent to the reservoir and have little to no impact on wells located further from the reservoir. Since groundwater levels will not fluctuate significantly, the restoration and associated drawdown of the reservoir will not cause declines in lake water levels in the vicinity of the reservoir.

Question #3: Would the Rodman pool make a good drinking water supply source?

Using the Rodman pool as a drinking water source has been researched by the St. Johns River Water Management District (SJRWMD). SJRWMD concluded that production, treatment, and transmission costs would likely be two to four times more expensive than utilizing the traditional source, the Floridan Aquifer. The relatively poor water quality in the pool compared to aquifer water coupled with high costs to transport and treat the water renders the Rodman pool an inferior drinking water source.

Question #4: Will the additional natural water flow created by restoration be lost to tide and wasted if it leaves Rodman pool?

Additional natural water flow from a free-flowing Ocklawaha River will not be wasted. It will provide many downstream benefits. Restoration will increase downstream flows by over 150 million gallons a day on average by reducing Rodman pool surface evapotranspiration and uncovering more than 20 springs that are currently suppressed under the pool. The cooler, clear spring water will also improve water quality and improve critical nursery habitat for fish, shellfish, manatees, and other species in the St. Johns River Estuary from Welaka to Palatka to Jacksonville. The additional and better-timed delivery of freshwater downstream will also help provide a natural barrier to higher salinity water moving upstream and impacting the fishery, forests, underground aquifer, and agricultural irrigation.

Question #5: Will it be more expensive to restore the river than to keep things the way they are?

While there will be a significant initial cost to restore the river, estimated at approximately \$6.7 million over four years as included in the 2017 FDEP Greenway Plan*, a free-flowing Ocklawaha will not require the on-going, long-term, intensive management as does the Rodman Dam and Reservoir and Buckman Lock. The extensive, stagnant water in the pool necessitates substantial annual expenditures for spraying of herbicides as well as drawdowns to help manage invasive vegetation. More importantly, since Rodman/Kirkpatrick Dam and Buckman Lock are now past their life expectancies and do not meet current engineering safety standards, retaining them will cost millions of dollars to avoid an estimated \$57 million in potential damages to downstream homes and properties. These expenditures would be unnecessary with a restored, naturally flowing river. Finally, a recent economic analysis projects a 28% increase in recreational activity will occur with a restored river compared to the existing pool. The projected 10-year return on investment is 7.6% which is greater than most public works projects. Restoration is projected to bring a cumulative net benefit of \$47.2 million over 10 years, while keeping the dam or status quo with no restoration is projected to create a cumulative loss of \$5.3 million (Alan Hodges, PhD, retired UF economist). Restoration yields a much needed, increased economic activity to this relatively poor rural area.

* Cost does not include recreation upgrades or updated construction costs.

Question #6: Doesn't the Buckman Lock and Barge Canal already provide the same downstream water flow and fish and wildlife passage as would a free-flowing river?

The total volume of water flow through the lock and canal during an average year amounts to less than 2.5% of the flow that passes through the dam gates or that would flow down the natural, undammed river. So, while it is true that a very limited number of fish and manatees do make their way into the lock and then into the pool, the numbers are significantly less than would occur in the free-flowing river. This is particularly true

since many fish are attracted by constantly flowing water and not by intermittent pulses such as those generated by the occasional opening and closing of a lock.

Some have suggested just leaving the lock wide open; however, doing so would drain the pool completely in less than a week. It is important to remember that the water in the pool is typically staged up about 15 feet higher than in the downstream receiving waterbody – the St. Johns River. Other operational possibilities such as leaving the lock partially open is against federal lock operation protocols and operating the lock more frequently is discouraged due to potential adverse impacts to manatees.

Question #7: Will breaching the Rodman/Kirkpatrick Dam result in loss of the current fishing economy in Putnam County

Putnam County's fishing economy is not totally dependent on the Rodman Reservoir. The St. Johns River within 50 miles of Palatka is ranked 4th in the nation by Bassmaster's. The Rodman Reservoir is ranked 8th. Many of the trophy fish caught in the local bass tournaments are caught in the St. Johns River. The largemouth bass fishery will not disappear with restoration so there is no reason to believe that all bass tournaments will disappear. Putnam County is also home to 267 lakes over ten acres in size with several lakes in the region hosting fishing tournaments. After restoration, other sport-fished species, such as larger striped bass, will become much more available. The University of Florida (UF) published a study in 2017 on the economic importance and value of the Rodman Dam. Neither this study, nor any further analysis, found a scenario that shows a noticeable loss of the current fishing economy in Putnam County. The study found that activities on the natural stretches of the Ocklawaha River result in greater contributions to the regional economy, compared to the recreation on the Rodman Reservoir sites. During the 2019/2020 drawdown visitation increased 81% over the two years prior during the same time when the reservoir was full.

Question #8: Would restoration eliminate bank fishing for low-income people that are dependent on caught fish for food?

The 2017 UF economic study confirms that bank fishing opportunities will increase as miles of riverbanks along the natural stretch of the Ocklawaha River dramatically increase. During drawdowns some of these banks at Kenwood, Paynes Landing and Orange Springs are open and very popular. Additional sites will open with full restoration. The Ocklawaha River will run freely along the southwest side of the Rodman/Kirkpatrick Dam, providing bank fishing opportunities. A free-flowing river in this location will bring more varieties of fish species migrating up and down the riverway. These will include an abundance of many sought-after species such as Striped Bass, Redbreast Sunfish, Spotted Sunfish, Channel Catfish, White Catfish, and Brown Bullhead. It is true that the "tailwater fishing" that is currently popular just below the dam will no longer exist as it is. There will remain a shallow pool in that location and the existing boat ramp and recreational facilities will remain or could be improved.

Question #9: Will breaching the Rodman/Kirkpatrick Dam destroy the fisheries there?

It is recognized that the Largemouth Bass fishery following breaching of the dam would not support the current angler effort and catch experienced in the large intensively managed pool; however, viable fisheries would still exist in the river without requiring the ongoing costly maintenance and management activities.

Similarly, since fish attempting to move up the river currently are blocked by the dam, they congregate in large numbers in the dam's tailwaters where they are easily targeted by bank fisherman. Breaching of the dam would impact this tailwater fishery, but it would not have a negative effect on overall fish abundance as these fish would continue to move upstream and disperse throughout the river and springs. In addition, the abundance of many species would likely increase upstream of the current dam, resulting in an enhanced fishing experience.

Breaching of Rodman/Kirkpatrick Dam and eliminating it as barrier to fish movement would allow fish species (Striped Bass, Redbreast Sunfish, Spotted Sunfish, Channel Catfish, White Catfish, and Brown Bullhead) to likely increase upstream of the dam resulting in enhanced fishing for these species throughout the middle and upper river. Abundance of Striped Bass and hybrid Striped Bass upstream of the dam in the Ocklawaha River to Silver Springs would likely increase and be maintained year-round.

Question #10: Will migratory species that used to populate the Silver Springs return after restoration?

Removal of the dam would allow significant populations of fishes such as Striped Mullet and Channel Catfish that were historically observed in Silver Springs renewed access to the springs and upper reaches of the river. Mullet are one of the few species that eat the toxic algae that now covers the once bright green eel grass in Silver Springs. Overall, fish species diversity and abundance would increase significantly upstream of the dam, including in Silver Springs. Currently the native fish are one half of what they once were, and the exotic Blue Tilapia population has dramatically increased. Bringing back large native fish predators will help control the Tilapia population.

Question #11: Don't hundreds of manatees already use the Rodman pool, creating a refuge that will be ruined by a restored river?

Based on data from the Clearwater Marine Aquarium Research Institute current as of July 2021, 102 unique manatees use the Ocklawaha River system, despite it being impounded by the Rodman/Kirkpatrick Dam and accompanying lock system. Manatee sighting numbers that are sometimes used include repeated viewing of these same unique manatees as they come and go.

Given manatees' reliance on warm freshwater sources in the winter, restoring the Ocklawaha River and its springs by breaching Rodman/Kirkpatrick Dam provide habitat for many hundreds of manatees. Rodman pool itself is not suitable as winter habitat because its waters can get too cold. If water temperatures drop below 68°F, manatees

can develop a condition called cold stress, which can cause them to become very sick or die. Manatees could access Silver Springs and the “lost springs” of the Ocklawaha if the dam was breached – providing warm water winter habitat. Since Florida has already surpassed the annual record for manatee deaths mid-way through 2021, breaching of the dam is more important than ever.

Question #12: Isn't the Rodman Reservoir its own thriving ecosystem?

Though the reservoir does provide some ecological value, it is mostly replicating values that would exist in much greater proportion by restoring a free-flowing river system. The damming of the Ocklawaha River significantly altered the hydrology and ecology of the historic floodplain, resulting in significant loss of habitats, wildlife, and connectivity, as well as other ecological values specific to a free-flowing river system. In addition, the current reservoir system is not a natural, self-sustaining ecosystem and it creates ecological problems that require intervention. The stable water conditions in the reservoir promote the growth of several undesirable aquatic plant species that require routine application of herbicides and drawdowns for control. The altered hydrology of the reservoir also contributes to the build-up of high nutrient sediments that require management. Without this costly and labor-intensive intervention, the Rodman pool wouldn't be in the seemingly healthy state it is in now. The breaching of the dam would greatly benefit many fish and mammal species that rely on the hydrological connectivity between lakes, springs, and coastal waters. When looking at the value and management of an ecosystem it is important to look at the entire connected watershed from Lake Apopka to the Atlantic Ocean not just one part of the system.

Question #13: Does the Rodman/Kirkpatrick Dam filter out pollutants from the St. Johns River? Will breaching the dam pollute the St. Johns River?

Rodman Reservoir, and reservoirs in general, collect inflowing elements and keep them from getting into downstream waters. Generally, the hydrologic system is built to deal with natural constituents, such as phosphorous, nitrogen and silica. Reservoirs, however, also store large quantities of pollutants that can act like a “ticking time bomb” that will go off during high flow or catastrophic events such as a dam failure. These can be very detrimental to the quality of downstream waters. During the partial restoration process turbidity barriers will be installed, sediments will be dredged and put in a nearby spoil pit, and water levels will be reduced in a controlled and monitored way over the 4-year restoration period to minimize impacts to the Ocklawaha and St. Johns Rivers.