A FLORIDA TAXWATCH BRIEFING

A River (No Longer) Runs Through It: Ocklawaha River Restoration

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The Cross Florida Barge Canal

The idea of connecting the Atlantic Ocean and the Gulf of Mexico by constructing a canal for ships that would cut through Florida can be traced back to the 16th century Spanish Conquistadors.

In the late 19th and 20th centuries, proponents of the ship canal envisioned the canal as an engine of economic growth that "would invite unprecedented growth and prosperity and place Florida at the very center of American commerce."[1]

The original channel would begin at the Atlantic Ocean in Jacksonville and follow the St. Johns River south to Palatka, then west along the Ocklawaha River to a point near Silver Springs. The canal would then continue westward south of Ocala to Dunnellon and finally along the course of the Withlacoochee River until it entered the Gulf of Mexico near Yankeetown. The nearly 200-mile long, 30-foot-deep ship canal would include some significant alterations to the St. Johns, Ocklawaha, and Withlacoochee rivers, as well as a dredged channel nearly 20 miles into the Gulf of Mexico.[2]

In 1935, with the U.S. unemployment rate at almost 25 percent, the need for work projects outweighed potential damage to the aquifer and all other considerations and construction of the ship canal began as part of President Franklin Roosevelt's New Deal. Within a year, however, the federal government stopped construction of the canal. During World War II, Congress passed a bill authorizing the construction of a different canal that would protect the shipping of oil and gas from the Texas oilfields to markets on the East Coast from German submarines. With a depth of only 12 feet (ostensibly to afford greater protection of the aquifer), the new canal would accommodate barge traffic and would follow the same channel route as the New Deal work project. Although Congress authorized the construction of the barge canal, no funds for construction of the canal were appropriated.[3]

In 1964, funding was appropriated, and construction of the Cross Florida Barge Canal began. Seven years later, efforts by environmental activists to preserve the Ocklawaha River were successful in convincing President Nixon to "pull the plug" on the Cross Florida Barge Canal. In 1991, Congress officially deauthorized the project and land interests and structures were transferred to the state of Florida.

Chapter 93-213, Laws of Florida, directed the Florida Department of Environmental Protection (FDEP) to "study the efficacy, both environmental and economic, of the following alternatives:

- Full retention (do nothing) --- retaining the current size and depth of the reservoir, with options for active management to enhance fish and/or wildlife. Removal and/or alteration of structures and topography would be limited.

1 Florida Trend, "Lessons From the Cross Florida Barge Canal Project," retrieved from https://www.floridatrend.com/article/4509/lessons-from-the-cross-florida-barge-canal-project, January 28, 2022.

2 Ibid.

3 Florida Trend, "Lessons From the Cross Florida Barge Canal Project," retrieved from https://www.floridatrend.com/article/4509/lessons-from-the-cross-florida-barge-canal-project, January 28, 2022.

- Partial retention --- reducing the water level in the reservoir, with options for active management of fish and/or wildlife. Structural modifications and alterations to topography would be limited.
- Partial restoration --- restoring river hydrology and floodplain function to preconstruction conditions by breaching the dam. Alteration and/or removal of structures and topography would be limited.
- Full restoration --- restoring river hydrology and floodplain function to preconstruction conditions. All structures would be removed and the topography in the impact area would be returned to preconstruction conditions.

In 1994, the St. Johns River Water Management District (SJRWMD) prepared a report to FDEP that evaluated each of the four alternatives and recommended the "partial restoration" alternative, which includes breaching the dam. This recommendation was approved by the Governor and Cabinet in 1995 and, two years later, FDEP submitted the required state Environmental Resource Permit and federal Dredge and Fill Permit applications to implement the partial restoration alternative.[4] In 2001, the U.S. Department of Agriculture issued an Environmental Impact Statement that recommended implementing the partial restoration alternative.[5] Twenty-eight years later, no action has been taken to implement this alternative.

The Rodman Dam and Reservoir

Although construction of the Cross Florida Barge Canal was stopped in 1971, the dam and its adjoining reservoir had already been completed and remain in place today. Construction of the dam closed off the flow of the Ocklawaha River, resulting in the loss of 16 miles of the Ocklawaha River, the loss or flooding of 7,500 acres of forested wetlands, and the covering of more than 20 freshwater springs.[6]

In 1998, the Florida Legislature officially designated the Rodman Dam as the George Kirkpatrick Dam, named after a former Florida Senator and ardent proponent of keeping the dam and reservoir intact. The earthen dam is approximately 7,200 feet long, with a four-gate spillway that can discharge up to 36,000 cubic feet of water per second from the Rodman Reservoir, located on the upstream side of the dam. The 7,200-foot-long earthen dam has a four-gate spillway designed to discharge up to 36,000 cubic feet per second of water from the Rodman Reservoir, which is located on the upstream side of the dam and spillway. With its headwaters starting in the Green Swamp and Lake Apopka, the drainage basin of the approximately 9,500-acre reservoir covers almost 2,800 square miles.[7]

Located around the former Rodman Dam is the Rodman Recreation Area, which is part of Florida's state parks system. The primary recreational activity is freshwater fishing --- water flowing downstream through the reservoir provides excellent freshwater fishing opportunities. Located atop the former Rodman Dam is the Marjorie Harris Carr Cross Florida Greenway, named after the environmental activist who led the opposition to the Cross Florida Barge Canal. Spanning 110 miles from the St. Johns River to the Gulf of Mexico, the Greenway hosts a variety of recreational activities and functions as a wildlife corridor for Florida's black bear and other species.[8]

A September 2015 inspection report by the Florida Department of Environmental Protection (FDEP) documented conditions at the Kirkpatrick Dam and Spillway structure. The report, prepared by an

4 Florida Department of Environmental Protection, "Marjorie Harris Carr Cross Florida Greenway State Recreation and Conservation Area Unit Management Plan, 2018-2018."

5 USDA, "Record of Decision for the Occupancy and Use of National Forest Lands and Ocklawaha River Restoration," December 2001.

6 Keith Williams, "Florida's Lost Springs," Earth Island Journal, Summer 2020, retrieved from https://www.earthisland.org/journal/index.php/magazine/entry/floridas-lost-springs-ocklawaha-river-freshwater-wildlife/, January 31, 2021.

7 Florida State Parks, "Rodman Recreation Area," retrieved from https://www.floridastateparks.org/parks-and-trails/rodman-recreation-area, January 30, 2022.

8 Florida State Parks, "Marjorie Harris Carr Cross Florida Greenway," retrieved from https://www.floridastateparks.org/index.php/Cross-Florida, January 30, 2022.

engineering consultant for FDEP, identified no major deficiencies and found the dam and spillway to "appear to be in good condition overall."[9] The inspection report identified 91 recommended repairs "to improve the function, reliability, and safety of the facility," at an estimated cost of $320,000.[10]

A limited inspection of specific structural elements of the dam[11] was conducted in 2019 to provide updated information on specific deficiencies and to develop a current scope of work for needed repairs. The report identified the need for the following repairs and their associated cost estimates:

- Grout and sand-cement bag reinstallation at the walking bridge --- $14,800;
- Repair concrete column spall at Gate 1 --- $3,400;
- Grout voids in the southwest and northeast slopes --- $20,200;
- Replace corroded bolts on gate seals --- $129,100;
- Grout void space on the lower apron --- $104,500; and
- Repair or replace the debris barrier --- $95,800.[12]

All told, the recommended repair costs are estimated at $367,800.

A 2021 engineering analysis commissioned by the Florida Defenders of the Environment (FDE) reviewed subsequent (2017 and 2019) dam inspection reports.[13] This analysis identified the presence of sand in the native soil, the foundation, and the embankment, which makes the dam subject to failure from surface erosion leading to a breach, and from subsurface erosion leading to a piping failure. Sandy soils are especially susceptible to erosion and have high hydraulic conductivity (i.e., the capacity to pass water). The soil analysis showed that the level of saturated hydraulic conductivity of soils at the dam ranges from moderately high to very high.

The engineering analysis indicated the dam inspection reports show the "persistent presence" of vertical cuts in the embankment caused by wave action; a "continuing presence" of ruts, unvegetated areas, and erosion of the surface of the embankment; and a debris barrier that is damaged and has been ineffective "for an extended period." The analysis identifies the presence of significant voids that have developed beneath grouted riprap and under the spillway, which are likely the result of water seeping under the spillway.[14]

THE ONGOING DISPUTE

For environmentalists, stopping construction of the canal was only half the battle --- nothing short of removing the dam and restoring the natural flow of the Ocklawaha River will be viewed as a victory for opponents of the dam and reservoir. For proponents, the dam and reservoir established a "viable and complex ecosystem that supports a wide variety of native plants and wildlife."[15] Removing the dam would, in their eyes, eliminate significant recreational opportunities for the public, including eliminating one of the country's premier bass-fishing spots.

Florida TaxWatch wades into this dispute to assess the options and provide policymakers with information they will need to make an informed decision regarding the future of the Ocklawaha River. Florida TaxWatch looks at two of the four alternatives that were considered in FDEP's 1994 assessment and the USDA 2001 Final Environmental Impact Statement:[16]

- Full retention --- involves retaining the current size and depth of the dam and reservoir, with options for

9 URS Corporation Southern, "Kirkpatrick Dam and Spillway Condition Assessment September 2015."

10 Ibid.

11 Greenman-Pedersen, Inc., "Report of Findings – Inspection of Kirkpatrick Dam," October 2019.

12 Ibid.

13 Givler Engineering, "Civil Engineering Expert Report: Kirkpatrick Dam at Rodman Reservoir," March 1, 2021.

14 Givler Engineering, "Civil Engineering Expert Report: Kirkpatrick Dam at Rodman Reservoir," March 1, 2021.

15 Steven Noll and David Tegeder, "If They Can't Save the Ocklawaha," Ocala Star Banner, February 6, 2010, retrieved from https://www.ocala.com/story/news/2010/02/07/if-they-cant-save-the-ocklawaha/31377803007/, January 31, 2022.

16 USDA Final Environmental Impact Statement, December 2001.

active management to enhance fish and/or wildlife. Removal and/or alteration of structures and topography would be limited.

- Partial restoration --- involves restoring river hydrology and floodplain function to near preconstruction conditions by breaching the dam. Alteration and/or removal of structures and topography would be limited.

The public policy debate centers on whether the dam and reservoir should remain in place or whether the dam should be breached to restore the natural flow of the Ocklawaha River. The "full retention" alternative would essentially maintain the status quo, while the "partial restoration" alternative would restore the river flow to near preconstruction conditions with limited removal of existing structures at the lowest cost. For each of these two alternatives, Florida TaxWatch examines the recreational, economic, and environmental impacts.

Recreational Impacts

FULL RETENTION

Proponents of maintaining the Kirkpatrick Dam and reservoir would likely agree that, even though the original Cross Florida Barge Canal plan was ill conceived, in the 50-plus years since the area forming the reservoir was flooded, a viable and complex ecosystem has evolved. With this ecosystem comes significant recreational benefits.

Freshwater fishing will remain the primary recreational activity if the dam is repaired or replaced and maintained. For boaters, kayakers, and paddling enthusiasts, there are boat ramps at the Rodman Recreation Area with paved parking, potable water, picnic pavilions and restrooms. For hikers and wildlife enthusiasts, a portion of the Florida National Scenic Trail crosses the dam into the Ocala National Forest. A campground is located nearby.

The Rodman Reservoir has served as a recreation location for decades, but within the past decade, the average number of visitors has fallen. Since 2010, the average number of visitors to the reservoir has decreased by about 3,627 visitor parties per year.[17]

PARTIAL RESTORATION

While the average number of visitors to the reservoir have decreased, the average use of the rivers sites has increased by 508 visitors per year between 2010 and 2017.[18] When drawdowns occurred --- which provide a similar environment to a breached dam --- visitation of the reservoir increased 81 percent, suggesting visitors enjoy the river-like environment. In total, regional visitation is expected to increase by 28 percent if the river habitat expands.[19]

It is important to note that partial restoration would not result in the removal of all the recreation facilities and amenities. Those facilities and amenities that support the river-like environment are likely to remain in place (or be improved), as are those that could be used for tournaments, bass fishing, parks, hiking, and other recreational and economic activities. Other recreational benefits of partial restoration include the uncovering of many Ocklawaha springs, reduced boat ramp and river blockages, additional miles of shoreline for hikers and campers, and greater opportunities for manatee watching.[20]

Environmental Impacts

FULL RETENTION

Proponents of the Kirkpatrick Dam and reservoir cite the wide variety of threatened and endangered species and the diverse community of native fish, wetland plants and land mammals that live in and around the reservoir. Manatees are abundant and the availability of food, coupled with the warm water current in the Ocklawaha River historic channel and barge canal channel provide access to Silver Spring, Blue Springs, Cannon Springs

17 Free the Ocklawaha, "Ocklawaha River Green and Gold Report," n.d.
18 Ibid.
19 Alan Hodges, Stephen Holland, and Quinton White, "Eight Reasons a Free-Flowing Ocklawaha River Makes Economic Sense," n.d.
20 "Reunite the Rivers," Ocala Gazette Special Supplement, October 2021.

and the upper Ocklawaha. Fish stocks are plentiful, and the bass fishing is highly regarded by many fishermen. Lake Ocklawaha is ranked among the best bass fishing lakes in the Southeastern U.S. by Bass Masters.

> *"It's one of the better bass fisheries in the state… It's known for lots of fish and lots of big fish."*
>
> –Travis Tuten, Fisheries Biologist, Florida Fish and Wildlife Conservation Commission[21]

The current state of disrepair of the Kirkpatrick Dam and Spillway has been well documented. Perhaps the greatest environmental risk to the repair and maintenance of the dam and reservoir is the risk of the dam's failure. The Kirkpatrick Dam has surpassed its 50-year life expectancy[22] and state dam inspection reports have identified numerous deficiencies and weaknesses that, if unattended, could ultimately lead to the dam's failure.

If the dam were to fail, it would greatly impact the surrounding communities. An estimated 539 properties (482 private and 57 public) are at risk of flooding from an uncontrolled discharge, with flood damages estimated at $57 million.[23] These estimates are based upon inundation maps depicting areas of greatest concern for emergency management authorities and a list of properties located in the areas of likely inundation if the dam were to fail under fair weather conditions contained in the 2007 emergency action plan[24] using 2020 parcel counts and property values . Collateral damage would also include damage to roadways, bridges, and other downstream structures. The Lower Ocklawaha River, which runs along the dam, would experience an unmanaged discharge of sediments, worsening its water quality.[25] The St. Johns River Estuary, long prized for its sports fishing, would also be disrupted.

PARTIAL RESTORATION

Breaching the Kirkpatrick Dam and restoring water flow from the Ocklawaha River will uncover 20 freshwater springs that were covered when the reservoir filled. This will restore an estimated 150 - 276 million gallons per day of natural freshwater flow.[26] This is expected to improve water quality by reducing the water temperature and increasing the velocity of the flow. An estimated 17,500 acres (including the 7,500 acres that flooded when the reservoir was filled and 8,000 acres downstream) of floodplain forests will be restored.[27] The thousands of acres of wetland forests that will be restored will improve water filtration and quality. The increased natural freshwater flow and velocity, coupled with clearer and cooler water in the summer months, will reduce the build-up of invasive aquatic vegetation, nutrient loads, and harmful blue-green algae blooms and promote the growth of healthy aquatic plants.

The St. Johns River Estuary is one of the largest in the state. Restoring the flow of the Ocklawaha River will help to reestablish the historic migration pattern for fish (and shellfish) from the Atlantic Ocean to Silver Springs, permitting several migratory fish species access to historical spawning grounds and nursery habitat. The diversity and abundance of fish species will likely increase with the shift from fish species that prefer a flowing habitat to fish species that prefer lake habitats.[28] By increasing the abundance of aquatic vegetation that provides water quality filtration and habitat for fresh and saltwater fish, restoring the flow of the Ocklawaha River

21 Bassmaster, "Rodman Reservoir's History of Big Bass and Controversy," February 10, 2022, retrieved from https://www.bassmaster.com/news/rodman-reservoirs-history-big-bass-and-controversy, February 10, 2022.

22 Jennifer Skillen, "The Nuts and Bolts of Dams and Their Removal," Sierra College Press, Volume 6, Number 1, 2015.

23 Alan Hodges, Stephen Holland, and Quinton White, "Eight Reasons a Free-Flowing Ocklawaha River Makes Economic Sense," n.d.

24 Florida Department of Environmental Regulation, "Emergency Action Plan: Kirkpatrick Dam and Rodman Reservoir," February 2007.

25 Alan Hodges, Stephen Holland, and Quinton White, "Eight Reasons a Free-Flowing Ocklawaha River Makes Economic Sense," n.d.

26 Free the Ocklawaha River Coalition, "Ocklawaha River Green and Gold Report Investing in North Florida Waters."

27 Free the Ocklawaha River Coalition, "Ocklawaha River Green and Gold Report Investing in North Florida Waters."

28 Kenneth Sulak, Steven Walsh, and Robert Virnstein, "Potential Impacts to Fish Populations of the Ocklawaha River," August 2021.

will also help to maintain the critical balance of fresh and salt water in the Estuary.

The 217-mile Great Florida Riverway, which includes the Ocklawaha River, flows north from Lake Apopka and the Green Swamp in Central Florida to the Atlantic Ocean via the Ocklawaha, Silver, and St. Johns rivers. The Riverway provides very important warm water habitat for manatees. Restoration of the Ocklawaha River has the potential to provide additional habitat, warm winter water refuge, and food sources for hundreds more manatees.

Economic Impacts

FULL RETENTION

Proponents of the Kirkpatrick Dam cite the economic benefits provided by the users of Rodman Reservoir as a significant driver for revenues in Putnam County, the third poorest county in the state and to Marion County. The revenue generated by users for hotels, restaurants, bait and tackle shops, fishing guide services and other retailers plus the added tax revenue is irreplaceable. The Rodman Reservoir provides between $6 million and $7 million per year to the economies of Putnam County and Marion County. Removal of the Rodman Reservoir produces negative net economic benefits over the next 20 years ranging from -$3.9 million to -$18.3 million, depending on the restoration alternative chosen.[29]

A November 2019 study by the University of Florida analyzed the economic impacts of recreational visitors to the Ocklawaha River and Rodman Reservoir. Researchers multiplied average expenditures per group-day against the average annual number of local and nonresident visitor groups during 2016-17 to estimate total annual visitor spending. These estimated expenditures were applied to economic multipliers from a regional economic model (IMPLAN)[30] to estimate total economic impacts for the counties of Putnam, Marion, and Alachua.

The total economic impacts of visitor spending for recreational uses of the Rodman Reservoir and Ocklawaha River are shown in Table 1. The total impacts include employment of 356 full-time and part-time jobs, $16.23 million in added value (Gross Regional Product), $10.26 million in labor income, and $28.30 million in industry output or business revenues.[31]

Table 1. Economic Impact of Annual Visitor Spending at the Ocklawaha River and Rodman Reservoir (2019)

Site	Rodman Reservoir	Ocklawaha River	Total
Industry Output (revenues)	$11,561,386	$16,741,385	**$28,302,771**
Value Added (GDP)	$6,580,767	$9,650,026	**$16,230,793**
Labor Income (salaries, wages)	$4,185,320	$6,072,109	**$10,257,429**
Employment (Full & part time jobs)	155	201	**356**

Source: University of Florida

If the dam and reservoir are retained, University of Florida Economics Professor Emeritus Alan Hodges estimates that the declining average number of visitors to the reservoir will result in a cumulative loss of $5.3 million over the next ten years.[32]

PARTIAL RESTORATION

Currently, the Rodman Reservoir adds $6.6 million to the local economy and provides an income of $4.2 million spread among 155 members of the community.[33] The Ocklawaha River adds $9.7 million to the local economy and an income of $6.1 million spread among 201 members of the community.[34] Research suggests that if the reservoir were removed, tourism along the Ocklawaha River would increase. With more

29 Save Rodman Reservoir, Inc., "Rodman Reservoir: A Complex of Opportunity," October 2021.

30 The IMPLAN model provides multipliers that capture direct spending and employment (direct effects), industry supply chain activity (indirect effects) and household and government spending (induced effects).

31 Xiang Bi, Tatiana Borisova, and Alan Hodges," Economic Value of Visitation to Free-Flowing and Impounded Portions of the Ocklawaha River in Florida: Implications for Management of River Flow," The Review of Regional Studies, 2019.

32 Free the Ocklawaha River Coalition, "Ocklawaha River Green and Gold Report Investing in North Florida Waters."

33 Alan Hodges, "Economic Benefits of Ocklawaha River Restoration," June 2020.

34 Ibid.

visitors, a partial restoration of the river stands to add an annual benefit of $9.1 million upon completion of the project.[35]

A September 2021 fact sheet summarizing research from the University of Florida (UF) and Jacksonville University (JU) suggests a free-flowing Ocklawaha River makes good economic sense.[36] Restoring the natural flow of the Ocklawaha River will increase local and nonresident visitor revenues across the river system. The UF/JU researchers estimated that the diversification of outdoor recreational offerings and the overall improvements in the condition of the river will increase annual regional visitation by an estimated 28 percent.[37]

Manatees are a major draw at public conservation areas. Uncovering the 20 "drowned" springs will expand manatee viewing and attract additional visitors. The UF/JU report determines six of these springs (plus Silver Springs) to be likely manatee viewing areas. If two of these springs are opened to the public for manatee watching with added infrastructure, the annual economic impact is estimated at 30,000 visitors and $3 million in new revenue.[38]

The major economic argument against restoring the natural flow of the Ocklawaha River is that there will be a negative impact on fishing, for which this area is renowned. Improved water quality will help maintain the proper salinity and restore the St. Johns River estuary, which is essential to the health and economic well-being of the area's recreational and commercial fishermen, and the area's fishing heritage. Restoring the natural flow of the Ocklawaha River may actually improve the fishing.

Breaching the dam (slowly) and restoring the natural flow of the Ocklawaha River will eliminate the more than $57 million in economic risk that would result from an unplanned dam failure. The state would save an estimated $4 million - $14 million in repairs to bring the Kirkpatrick Dam to accepted standards, as well as an estimated $364,000 in annual costs to maintain the dam and spillway.[39]

With an estimated price tag of $25.8 million over ten years, the projected ten-year return on investment for the restoration of the Ocklawaha River is calculated at 7.6 percent, or a $1.76 return on every $1.0 invested.[40] University of Florida Economics Professor Emeritus Alan Hodges estimates additional visitors are expected to increase business revenues in Putnam, Alachua, and Marion counties by an estimated $8.1 million annually. The cumulative net benefit of restoring the flow of the Ocklawaha River over ten years is estimated to be $47.2 million. [41]

Public Opinion

Public opinion varies to some degree. A November 2017 survey (n=641) of public preferences for managing the Ocklawaha River conducted by the University of Florida asked respondents whether they would breach the dam or leave it as is. Only 15 percent responded that they would breach the dam; 56 percent responded that they would leave the dam as it is; and 29 percent was unsure.[42] When asked about their position on the future of the Kirkpatrick Dam, respondents who supported breaching the dam said it would restore Silver Springs and the Silver Springs River; improve or protect aquatic ecosystems; restore submerged springs; and improve or protect wildlife habitat and birds. Those who supported leaving the dam as is would improve or protect fishing. When asked whether breaching the dam would affect

35 Ibid.

36 Alan Hodges, Stephen Holland, and Quinton White, "Eight Reasons a Free-Flowing Ocklawaha River Makes Economic Sense,"

37 Ibid.

38 Ibid.

39 Alan Hodges, Stephen Holland, and Quinton White, "Eight Reasons a Free-Flowing Ocklawaha River Makes Economic Sense,"

40 Alan Hodges, Stephen Holland, and Quinton White, "Eight Reasons a Free-Flowing Ocklawaha River Makes Economic Sense,"

41 Free the Ocklawaha River Coalition, "Ocklawaha River Green and Gold Report Investing in North Florida Waters,"

42 Tatiana Borisova, Xiang Bi. Alan Hodges, and Stephen Holland, "Economic Importance and Public Preferences for Water Resource Management of the Ocklawaha River," University of Florida, November 11, 2017.

their future visitation, 39 percent said they would decrease or stop their visits; 25 percent said their visitations would not be affected; and one-third were unsure or did not answer.[43]

In September 2021, the St. Johns River Water Management District conducted a survey of community members and stakeholders to collect information regarding the Kirkpatrick Dam and Rodman Reservoir. Statewide, there were 10,482 respondents to the survey. Of the 9,793 respondents that answered what they would like to see happen to the dam and reservoir, 86.5 percent favored breaching the dam and restoring the free flow of the Ocklawaha River; and 5.9 percent supported retaining the dam and reservoir. The remaining 7.6 percent offered no clear position.[44] In Marion County, whose northern boundary borders the dam and reservoir, 75.3 percent of respondents answering that question favored restoring the Ocklawaha River and 16.5 percent favored maintaining the dam.

In Putnam County, 63.6 percent of respondents favored restoration of the Ocklawaha River and 19.5 percent favored maintaining the dam.[45]

This is supported by an "Ocklawaha Restoration Benchmark Poll" conducted in December 2021 and January 2022.[46] Of the 604 respondents, 81 percent expressed general approval of restoring the Ocklawaha River. Only six percent of the respondents opposed restoration.

43 Tatiana Borisova, Xiang Bi. Alan Hodges, and Stephen Holland, "Economic Importance and Public Preferences for Water Resource Management of the Ocklawaha River," University of Florida, November 11, 2017.

44 Ibid.

45 Danielle Johnson, "Over 85% of Survey Respondents Favor Breaching the Kirkpatrick Dam, Restoring Ocklawaha," Ocala Star Banner, November 10, 2021, https://www.ocala.com/story/news/environment/2021/11/10/most-florida-stakeholders-favor-breaching-kirkpatrick-dam-survey-says/6360345001/, January 31, 2022.

46 Barcelo & Company, "Ocklawaha Restoration Benchmark Poll Final Results," January 2022.

Conclusions and Recommendations

Given the aging dam infrastructure and social value of ecosystem services provided by free-flowing rivers, public interest nationwide in removing dams (rather than maintaining them) is increasing. As of 2015, more than 1,300 dams have been removed from U.S. waterways, with the majority of these removed in the last 20 years.[47] Dams provide a host of public benefits, but also pose a great risk to public safety. Age, shoddy construction, inadequate or deferred maintenance, and weather events all contribute to a greater likelihood that a dam may fail. In the event of a failure of the Kirkpatrick Dam, the downstream impacts would be catastrophic. Current public opinion supports the partial restoration of the Ocklawaha River.

At some point the state will have to "fish or cut bait" and decide the future of the Kirkpatrick Dam and Rodman Reservoir. Florida TaxWatch thinks that time is now for a couple of reasons. First, the costs of each option are not exorbitant. Repairing and maintaining the dam and reservoir will require as much as $14 million to repair the dam to meet accepted standards for dam safety and annual maintenance of an estimated $234,000 thereafter. The cost of the "partial restoration" alternative, estimated at $25.8 million, would be spread over a multi-year period. Due to new (2020) federal dam safety requirements, these costs are likely to increase when updated estimates are developed.

Second, moneys are available to fund either option. The infusion of federal pandemic stimulus funds, coupled with general revenue projections that far exceed pre-pandemic levels and earlier projections, has left the state in a favorable economic position. Through the federal $1.2 trillion Infrastructure Investment and Job Act, Florida will receive an estimated $19.1 billion over five years to improve its public infrastructure. Other

47 Sarah Gilman, "This Will Be the Biggest Dam Removal Project in History," National Geographic, April 11, 2016.

federal funds may be made available for dam and barrier removal and restoration after removal.[48] State revenue estimators recently upped their general revenue projections for the fiscal years 2021-22 and 2022-23 by $4 billion.

Florida TaxWatch reminds the reader that this issue was debated by the state as far back as 1994. Twenty-eight years later and supported by a SJRWMD report to FDEP and a federal Environmental Impact Statement, both recommending the partial restoration of the Ocklawaha River, which included breaching the dam, there has been no action to implement this recommendation.

Florida TaxWatch thinks that what was a good idea in 1994 is a good idea in 2022. Florida TaxWatch supports the breaching of the Kirkpatrick Dam and the partial restoration of the natural flow of the Ocklawaha River. Florida TaxWatch recommends the legislature appropriate funding to bring about this partial restoration. To do otherwise would be a dam shame.

48 Congressional Research Service, "Dam Removal and the Federal Role," October 27, 2021.

ABOUT FLORIDA TAXWATCH

As an independent, nonpartisan, nonprofit taxpayer research institute and government watchdog, it is the mission of Florida TaxWatch to provide the citizens of Florida and public officials with high quality, independent research and analysis of issues related to state and local government taxation, expenditures, policies, and programs. Florida TaxWatch works to improve the productivity and accountability of Florida government. Its research recommends productivity enhancements and explains the statewide impact of fiscal and economic policies and practices on citizens and businesses.

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