



Ocklawaha River Restoration The End of a 50-year Federal Travesty



Ocklawaha River Restoration

The End of a 50-year Federal Travesty

- I. Orientation and Historical Context**
- II. A Tale of Four Ecosystems**
- III. Unprecedented Environmental and Ecological Benefits**
- IV. Favorable Economics**
- V. Recreational Opportunities & Advantages**
- VI. Overwhelming Public Opinion in Support**
- VII. Forecast**

Orientation and Historical Context



Three Rivers, Fifty Springs, One Solution



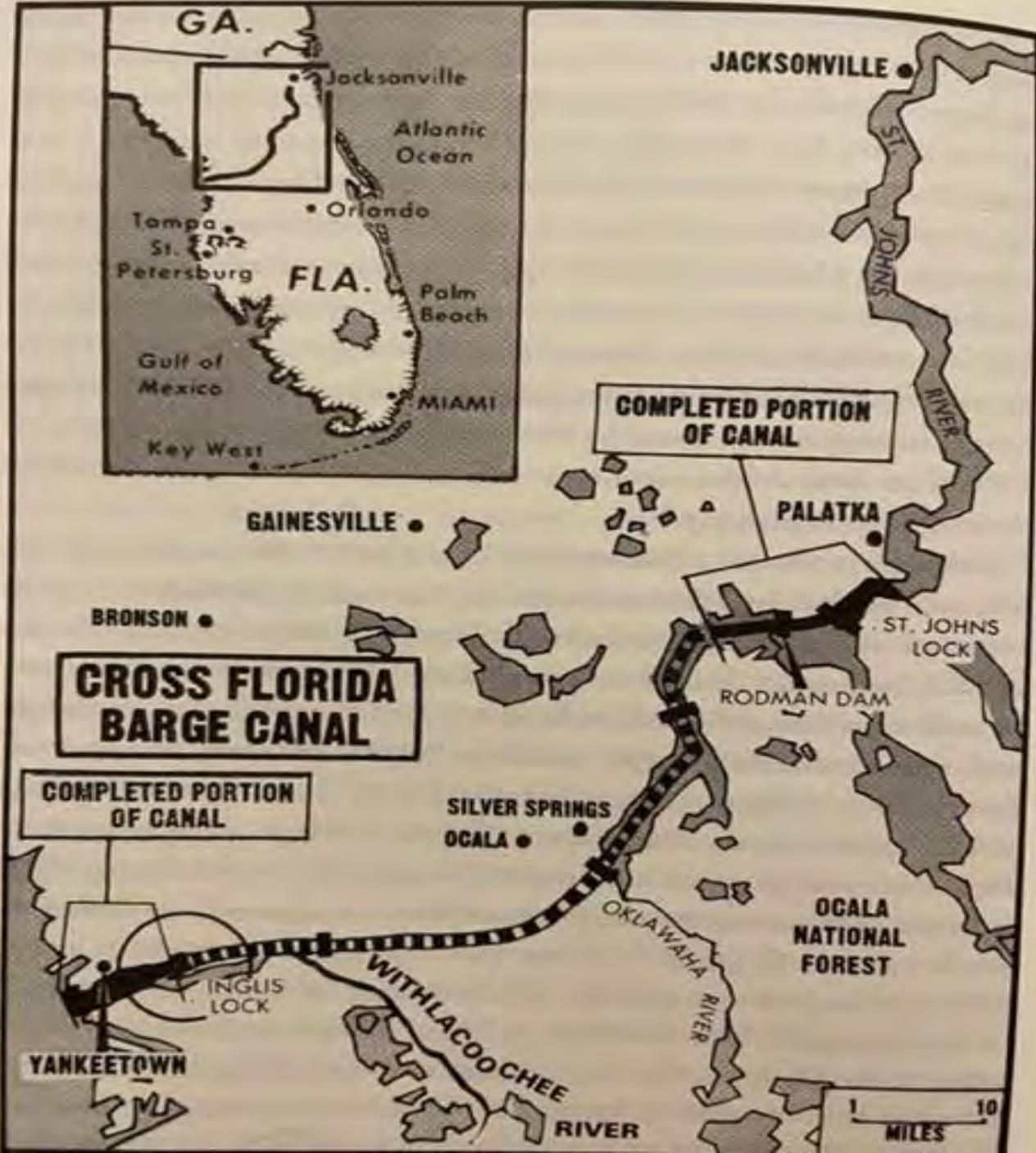
Why was the Rodman Dam, Lock and Reservoir System Built?

- Not Water Supply
- Not Flood Protection
- Not Power Generation
- It was created as an initial component of the ill-fated **Cross Florida Barge Canal** that, if completed, would have devastated surface and ground water resources north-central Florida.



Cross Florida Barge Canal

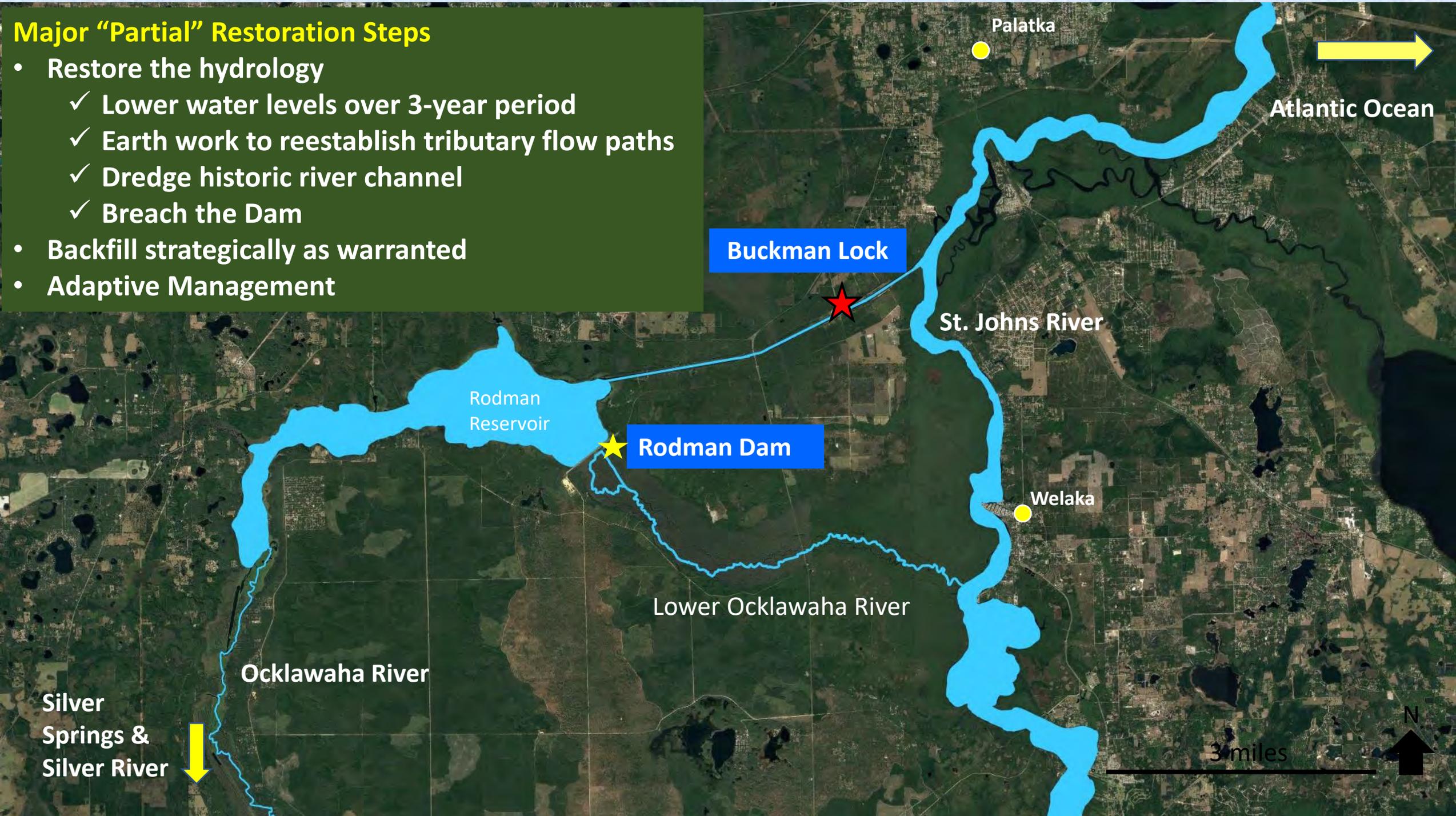
(circa 1970)



Abbreviated Timeline

- 1500s** Spanish first envision watery shortcut across *La Florida* peninsula...
- 1963** Congress funds construction.
- 1968** Rodman Dam, Lock and Reservoir completed.
- 1969-1970** Environmental Defense Fund, Florida Defenders of the Environment, Congressman MacKay and others apply pressure.
- 1971** US District Court issues injunction. **Nixon halts construction of canal due to environmental concerns (NEPA).**
- 1971-1994** State and federal agencies recommend restoration. Canal deauthorized by Congress.
- 1995-1997** Gov. Chiles directs “partial” restoration. ERP application submitted. Cost estimate: \$25M.
- 2001** USFS completes EIS. Florida accepts restoration responsibility. Governor and legislature never execute.

- ## Major "Partial" Restoration Steps
- Restore the hydrology
 - ✓ Lower water levels over 3-year period
 - ✓ Earth work to reestablish tributary flow paths
 - ✓ Dredge historic river channel
 - ✓ Breach the Dam
 - Backfill strategically as warranted
 - Adaptive Management



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A Tale of Four Ecosystems



Ed Lowe, PhD

Former Director of Environmental Sciences and Chief Scientist, St. Johns River Water Management District, Palatka, Florida



Ocklawaha River



Silver River & Silver Springs



St. Johns River



Atlantic Ocean

Free the Ocklawaha River Coalition for Everyone

Science Committee

Co-chairs

- **Casey Fitzgerald**, Former Assistant Director, Water Resources Department, SJRWMD - Environmental policy
- **Ed Lowe**, PhD, Former Director, Environmental Sciences & Chief Scientist, SJRWMD - Aquatic and wetland ecology
- **Kimberleigh Dinkins**, Senior Conservation Associate, Save the Manatee Club - Soil and Water Science

Members

- **Chris Farrell**, Northeast Florida Policy Associate, Audubon Florida - Community ecology
- **Jim Gross**, Executive Director, Florida Defenders of the Environment - Hydrogeology
- **John Hendrickson**, Former Supervising Environmental Scientist, SJRWMD - Water Quality
- **Bob Knight**, PhD, Executive Director, Florida Springs Institute - Springs and wetlands ecology
- **Jack Putz**, PhD, Distinguished Professor, Department of Biology, University of Florida - Botany
- **Pat Rose**, Executive Director, Save the Manatee Club - Aquatic biology
- **Pete Sucsy**, PhD, Former Technical Program Manager, SJRWMD - Hydrodynamics
- **Ken Sulak**, PhD, Scientist Emeritus, USGS Wetland and Aquatic Research Center - Fish biology
- **Bob Virnstein**, PhD, President, St. Johns River Institute & Owner, Seagrass Ecosystems Analysts - Estuarine ecology
- **Quinton White**, PhD, Director, Marine Science Research Institute, Jacksonville University - Marine biology
- **Stephen Walsh**, PhD, Scientist Emeritus, USGS Wetland and Aquatic Research Center - Aquatic ecology and fish biology

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Unprecedented Environmental & Ecological Benefits

- A. Restore Silver Springs and Recover the Twenty “Lost Springs”**
- B. Restore Populations of Migratory Fish Species**
- C. Provide Critical Winter Habitat for Hundreds of Manatees**
- D. Improve Water Quality, Habitat, Fisheries and Resiliency of the Lower St. Johns River and Estuary**
- E. Reestablish a Critical Link in the Florida and O2O Wildlife Corridors**

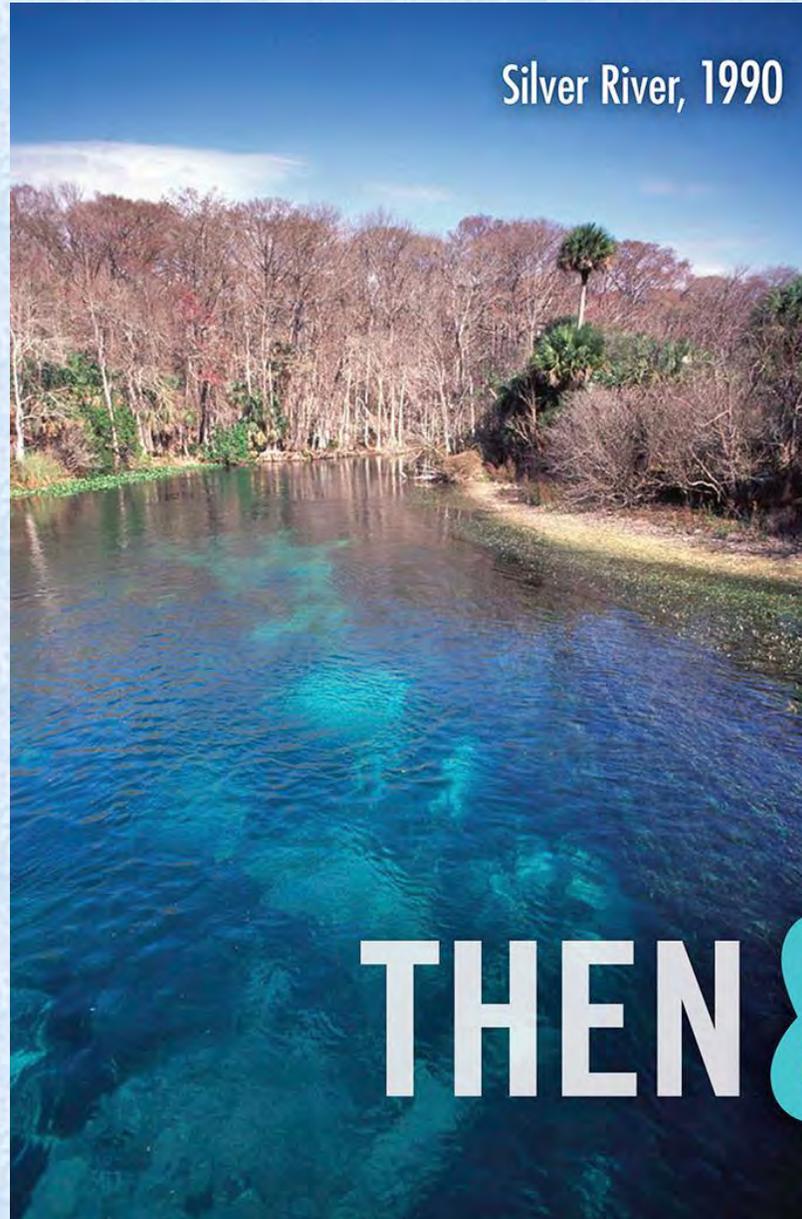
Restore the Ecology of Silver Springs



Silver Springs Health Depends on a Free-Flowing Ocklawaha

“Silver Springs will never be fully restored without the breaching of the Rodman/Kirkpatrick Dam on the Ocklawaha River. Migratory fish from the Atlantic Ocean and St. Johns River, including striped bass, channel catfish, striped mullet, American shad, American eels and Atlantic sturgeon, are critical to a productive Silver Springs ecosystem.”

Robert Knight PhD, Executive Director, Florida Springs Institute



THEN & NOW



The Story of the Disappearing Fish

Fish biomass declined by *over 90%* within 10
years of dam construction/closure



Recover the Lost Springs of the Ocklawaha

Twenty springs (!) are inundated and flows greatly suppressed by the waters impounded behind Rodman Dam.

Breaching the dam will uncover these springs and increase flows to the Ocklawaha and St. Johns Rivers.

Coupled with the benefits to Silver Springs, Ocklawaha restoration quite simply represents the **most profound and cost effective springs restoration project in Florida, *by far.***

Photo by John Moran



MARION BLUE AND CANNON SPRINGS

**Marion Blue Springs:
A Painting Before the Dam and Current View**



Painting by Elizabeth W. Smith



Cannon Springs covered by the waters impounded behind the dam.



A view of Cannon Springs during drawdown from above and below.

Restore Populations of Numerous Migratory Fish Species





Channel Catfish



White Catfish



American Shad



Striped Mullet



Atlantic Striped Bass



Blue-nosed Shiner



Yellow Perch



American Eel



Atlantic Sturgeon

Illustrations by Rehner Mungus

Provide Critical Habitat for Hundreds of Manatees

- **Unusual Mortality Event** under the Marine Mammal Protection Act - over 1100 manatees died in 2021 and over 700 died in 2022.
- 60% of Florida's manatees depend on artificial warm water refugia to survive the winter.
- Manatees need food and warm water habitat to survive the winter
- ***Restoring natural warm water refugia with nearby food sources are essential to preventing future die-offs. (Warm Water Action Plan)***



Ocklawaha Restoration

A Permanent, Natural Lifeline for Manatees

- Silver Springs complex would provide substantial forage and warm water refugia
- Twenty “Lost Springs” recovered would add additional warm water refugia
- **FWC/FWS 2008 Report: Ocklawaha restoration would provide essential warm water winter habitat for “hundreds of manatees”**

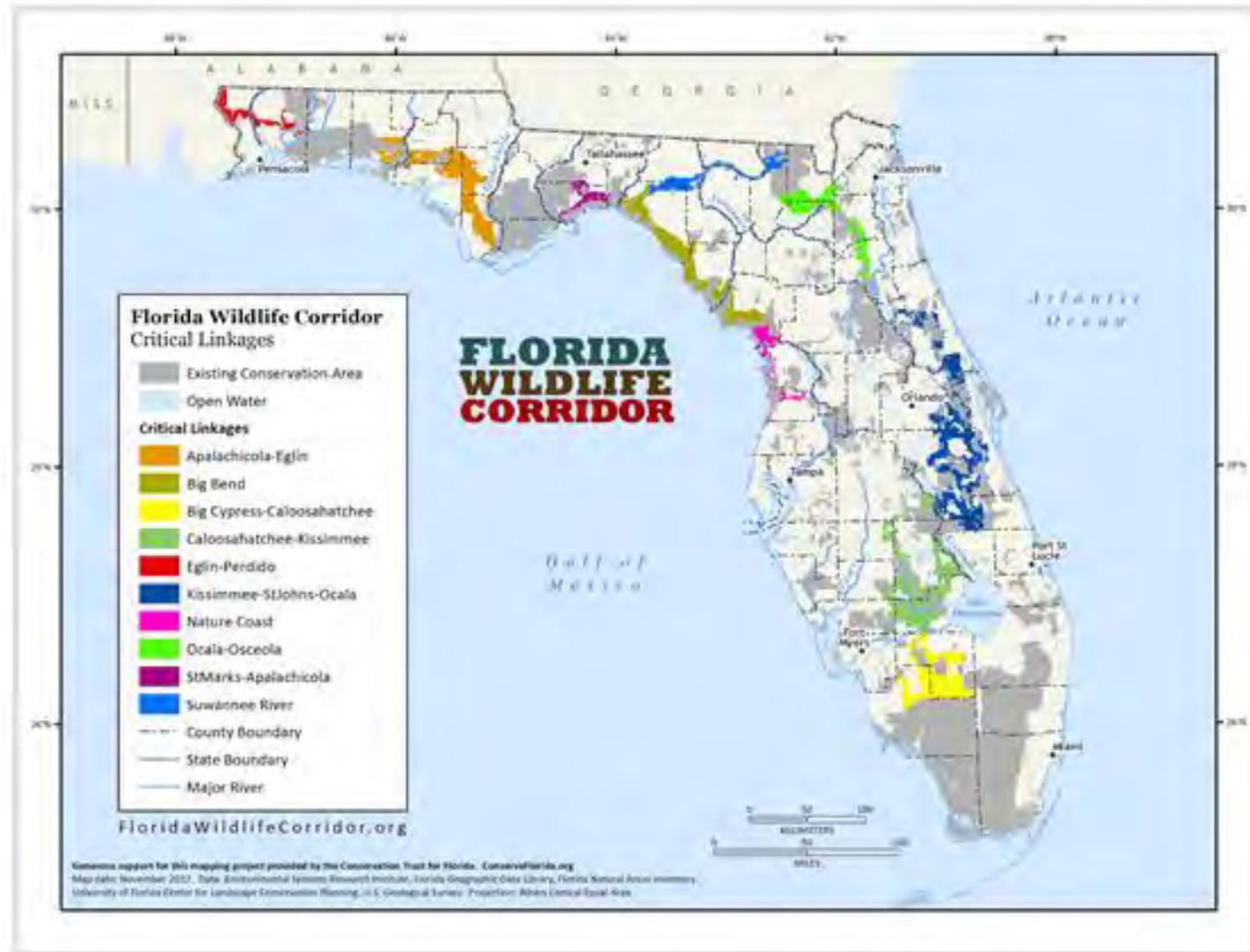


Improve Water Quality, Habitat, Fisheries and Resiliency of the St. Johns River and Estuary

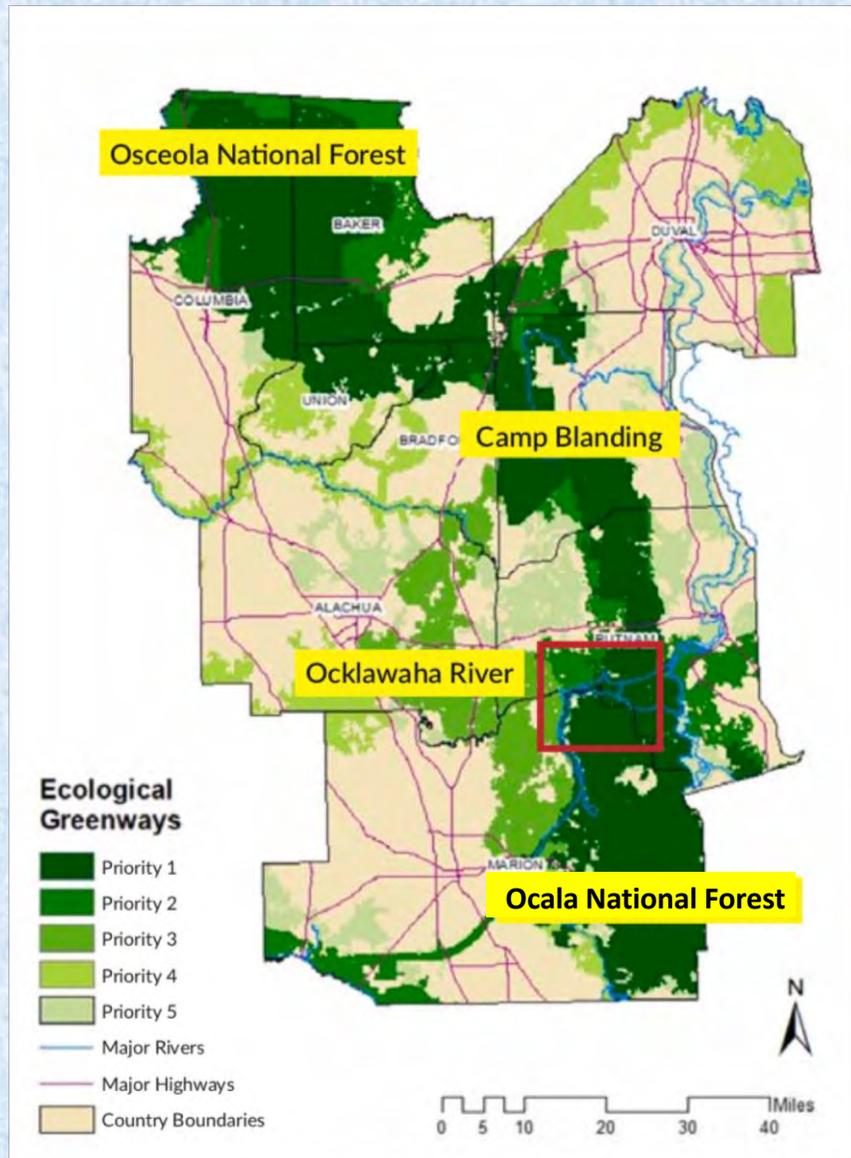
- Restoration will bring over 150 MGD freshwater flow from the Ocklawaha to the Lower St. Johns River and Estuary
- More clearer and cooler water will support:
 - ✓ Restoration of decimated eelgrass communities and healthy seagrass communities
 - ✓ Offset saltwater intrusion – enhancing coastal resiliency
 - ✓ Improved water quality and help prevent harmful algal blooms
 - ✓ More productive commercial and recreational fisheries



Reestablish a Critical Link in the Florida & O2O Wildlife Corridors

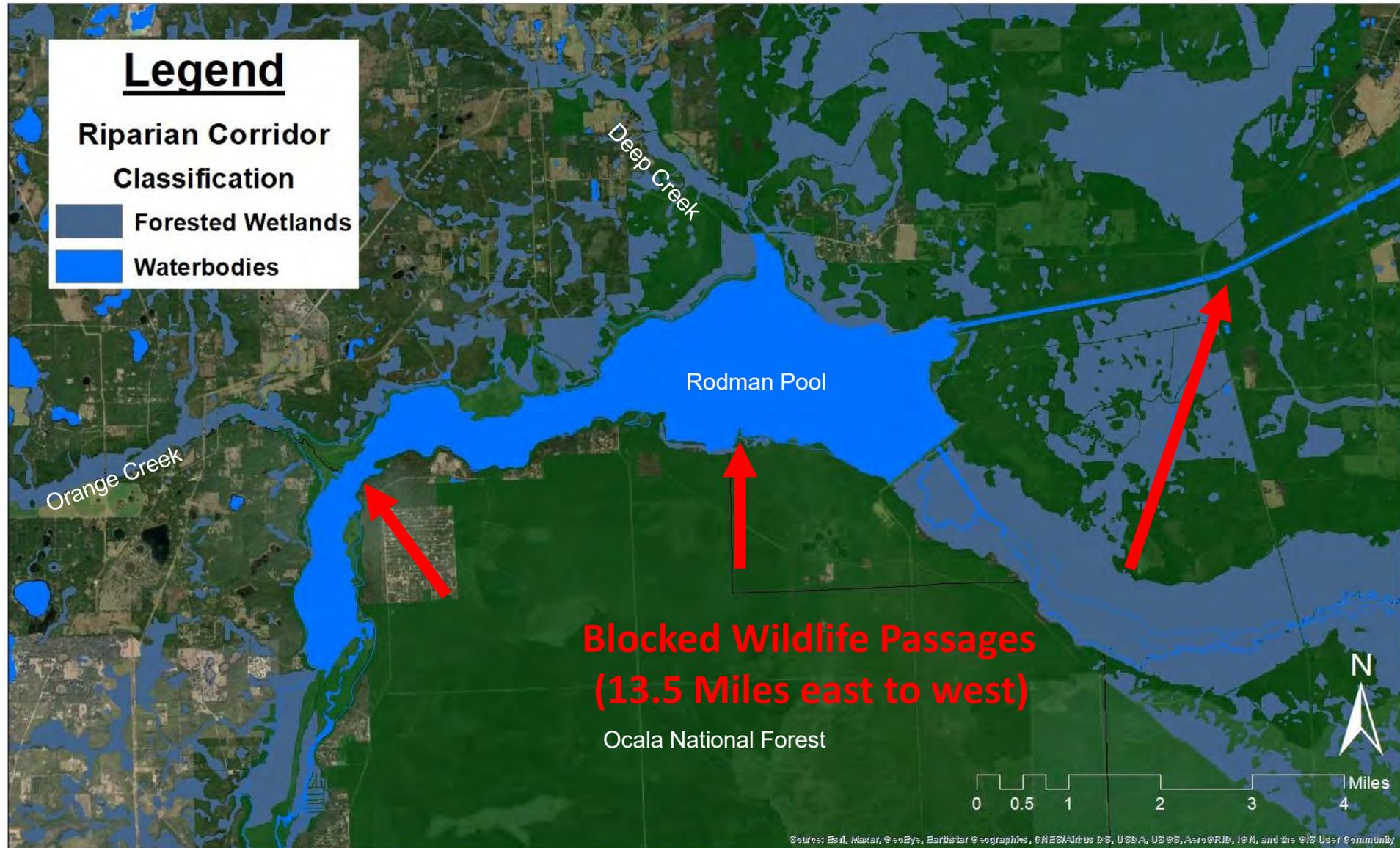


Ocala to Osceola National Forest (“O2O”) Corridor



- Restores 7,500 acres of currently-flooded forested wetland habitat (Rodman Pool)
- Reconnects corridor benefitting wide-ranging species: panther and black bear
- Supports avian and terrestrial species like wood storks, wild turkey, and white-tailed deer

Before Restoration



After Restoration



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Very Favorable Economics



2017 UF Economic Study: Key Findings



- **Rodman Reservoir/Impounded Ocklawaha River Impact:** \$6.6 million to local economy and provides income of \$4.2 million and 155 jobs.
- **Natural Ocklawaha River Impact:** \$9.7 million to local economy and provides income of \$6.1 million and 201 jobs.
- **Consumer interest in a restored or natural Ocklawaha River:** Evident during the 2019-2020 drawdown when **visitation increased by 81 percent** when compared to two previous years during the same months.
- **Declined use of the reservoir:** Gone down by an average of more than 3000 visitor parties a year since 2010.

2019 Economic Assessment: Key Findings

Ocklawaha River Green and Gold Report Investing in North Florida Waters



A Stimulus-Ready Project
Three Rivers, 30+ Springs, One Solution

Report from Alan Hodges, PhD
Retired Faculty Economist Emeritus, UF IFAS

- Diversification of outdoor recreational offerings and improvements in the condition of the river will **increase annual regional visitation by an estimated 28%.***
- 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.
- Estimated **return on investment (ROI) is projected to be 7.6% or \$1.76 return on each \$1 invested.**
- **Visitor impact on business revenues** in Putnam, Alachua, and Marion county --- **\$8.1 million annually.**
- **Cumulative net benefit over 10 years --- \$47.2 million.**

* Note: ROI would increase dramatically with added recreation infrastructure. Also does not factor in projected increase in revenues with Silver Springs are manatee viewing center.

2021UF/JU Economic Fact Sheet Findings



- Restoring the natural flow of the Ocklawaha River will eliminate more than \$57 million in economic risk to 539 properties that would result from an unplanned dam failure or misoperation.
- Uncovering the 20 “drowned” springs of the Ocklawaha River will expand manatee viewing and attract additional visitors --- annual economic impact is estimated at 30,000 visitors and \$3 million in new revenue.

Dominic Calabro
President & CEO
Florida TaxWatch



Economic Briefing, February 2022

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



*“Given the public safety risks posed by dams, as well as the reasonable costs associated with the project and **Florida’s** favorable economic position, Florida TaxWatch supports the breaching of the dam and partial restoration of the natural flow of the Ocklawaha River.”*

Dominic Calabro, TaxWatch

*Tax Watch's analysis largely supports **environmentalists'** claims that breaching the dam would bring significant improvement for **Florida’s** water, wildlife and ecotourism, and also underscores economic gains from dam **removal.**”*

Kevin Spear, Orlando Sentinel

Florida Restoration Projects: Comparing the Return on Investment

	Upper St. Johns River Basin	Lake Apopka and Harris Chain of Lakes	Kissimmee River	Ocklawaha River
Wetlands Restored	100,000 acres	25,000 acres	27,000 acres	7,500 acres restored plus 8,000 acres improved
River Miles Restored	NA	NA	44 river miles	16 river miles
Approx. Costs in Today's \$\$\$	\$1 billion	\$250 million	\$900 million	\$50 million*

* Ocklawaha River restoration cost from 1997 FDEP estimate of \$25+ million with CPI adjustment.

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Recreation Opportunities and Advantages





The Business Case for Investment in Recreation Infrastructure

- Establish Putnam and Marion Counties as outdoor recreation hub complementing Bass Pro plans
- Protect the valuable sports fishing and shell fishing industries in the lower St. Johns River Estuary
- Develop strategic infrastructure to assure angler access and sustain local fishing economy
- Increase regional visitation by a minimum of 28% due to diversifying the outdoor recreation offerings
- Implement manatee viewing areas in uncovered Ocklawaha River springs and Silver Springs
- Invest to increase the ten-year projected return on investment for Ocklawaha restoration of 7.6%

University of Florida College of Design, Construction and Planning

Center for Landscape and Conservation Planning

Faculty: Tom Hctor, PhD & David Barth, PhD

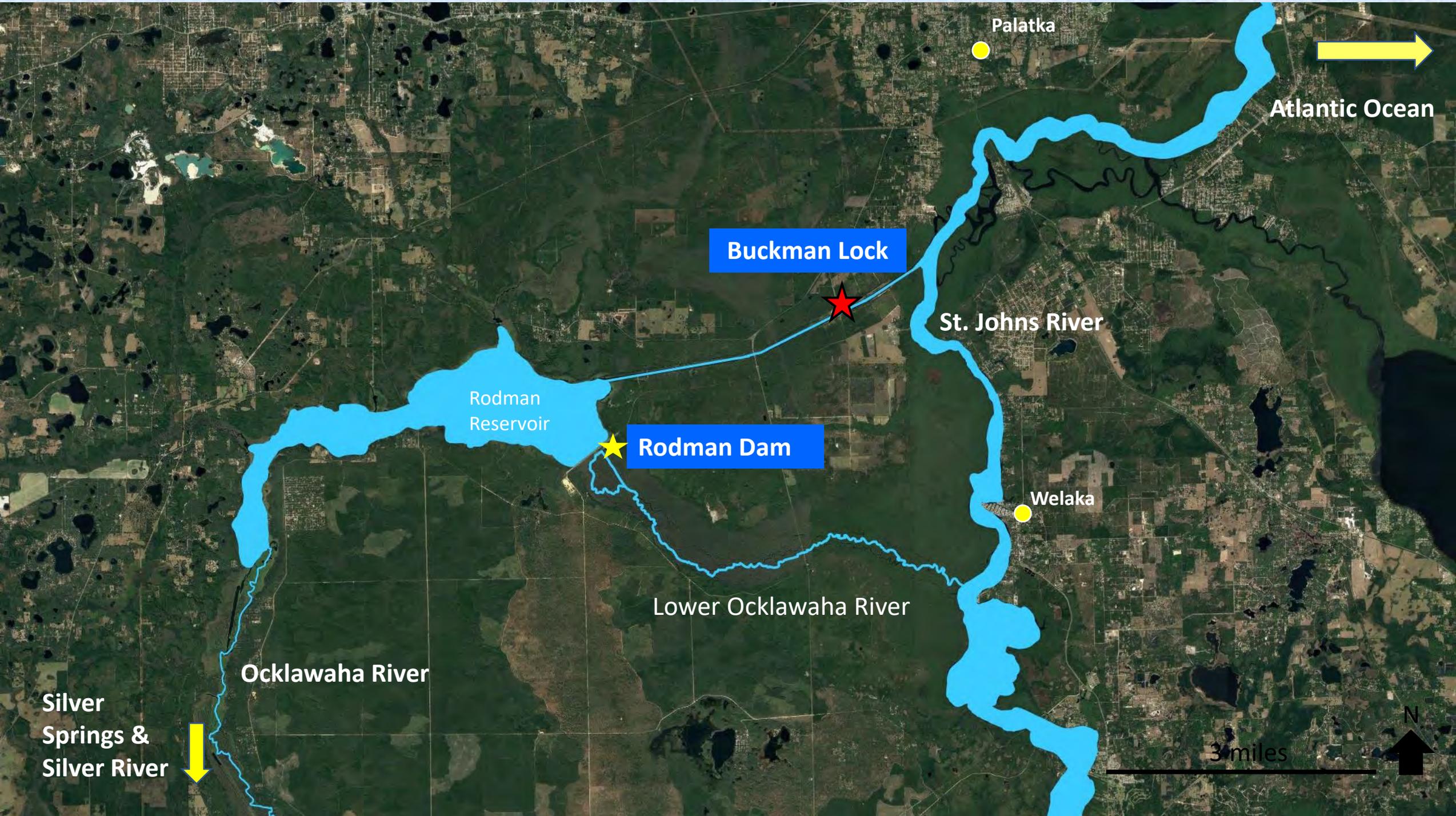


Developing a Shared Vision for Transforming Rodman Recreation Area

2020-2021 - 14 University of Florida students created nine recreation and restoration designs for a restored Ocklawaha River.

2022 - Senior UF student Kathryn Stenberg created a plan for repurposing the Rodman Recreation Area. She led a listening session with community leaders on the three concepts asking participants what they most liked, what concerned them and what could make them even better.





Palatka

Atlantic Ocean

Buckman Lock

St. Johns River

Rodman Reservoir

Rodman Dam

Welaka

Lower Ocklawaha River

Ocklawaha River

Silver Springs & Silver River

3 miles





Aerial Views of the Rodman/Kirkpatrick Dam

Current view:

- Historic fish, manatee and boat passage blocked
- Two recreation areas disconnected with no pedestrian crossover
- Log and debris buildup on opposite side
- Rusted and aging structures and walkways
- Remnant Cross Florida Barge Canal in top right

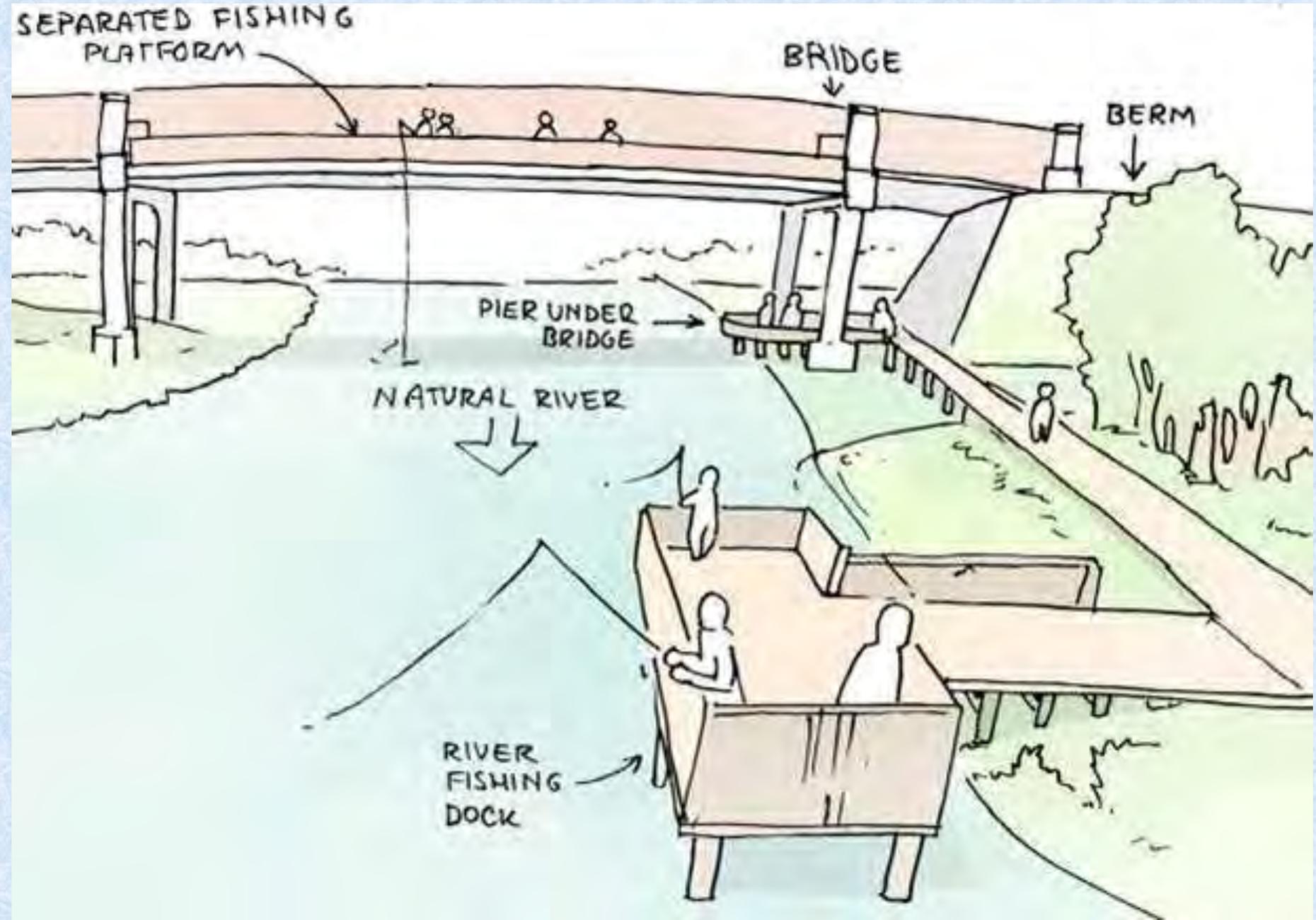
One proposed concept:

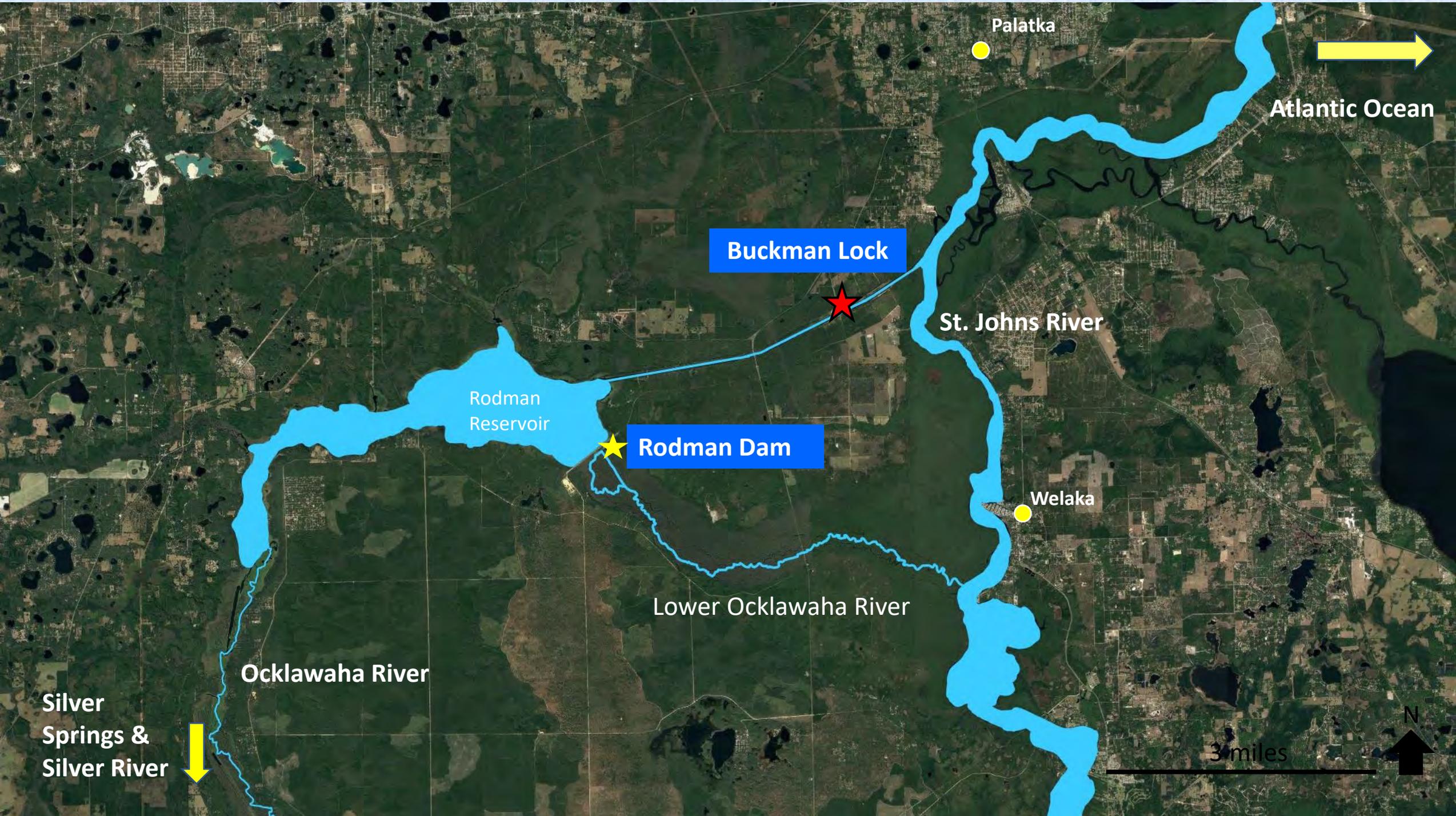
- Historic fish, manatee and boat passage restored to left of picture in natural channel
- Boat ramp maintained and improved
- Paddling launch improved
- Recreation areas connected for better access and Florida Trail crossing
- Parking, picnic and playground areas added and improved
- Historic interpretive signage throughout





New Bridge and Fishing Features Over Restored Ocklawaha River





Buckman Recreation Area Conceptual Plan



Creation of a State-of-the-Art Sports Fishing and Hunting Hub providing access and amenities for St. Johns River fishing and outdoor sports focusing on serious anglers and hunters and their families.

Juan Garcia * Anthony Paparella * Christian Brewer

Buckman Lock Repurposed: A Conceptual Plan

- Open Space

- General Store
- Tackle Shop
- Restaurant
- Pro Shop
- Lodging

- Water Access to St. Johns

- Fishing Piers
- Kayaking
- Boat Ramps
- Fishing Charters

- Outdoor Recreation & Ecological Area

- Hunting
- Bass ponds
- Trails

Access to St. Johns

Tournament Center

Open Area for Development

St. Johns River

Outdoor Recreation & Ecological Area

Part of the Florida Wildlife Corridor

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2021 SJRWMD Survey Results

9,793 respondents

St. Johns River Water Management District collected online surveys between Sept. 23 and Oct. 22, 2021 “to collect feedback regarding the Kirkpatrick Dam and Rodman Reservoir” and “to help inform future key decisions regarding the best path forward — continued management and operation of the structures or an alternative restoration strategy.” Results can be found at <https://www.sjrwmd.com/rodman>.

When asked what they would like to see happen to the dam and reservoir going forward --

Overall

- 86.5% would breach the dam
- 5.9% would leave the dam as is
- 7.6% had no clear position

Marion County

- 75.3% favored breaching the dam
- 16.5% favored maintaining the dam

Putnam County

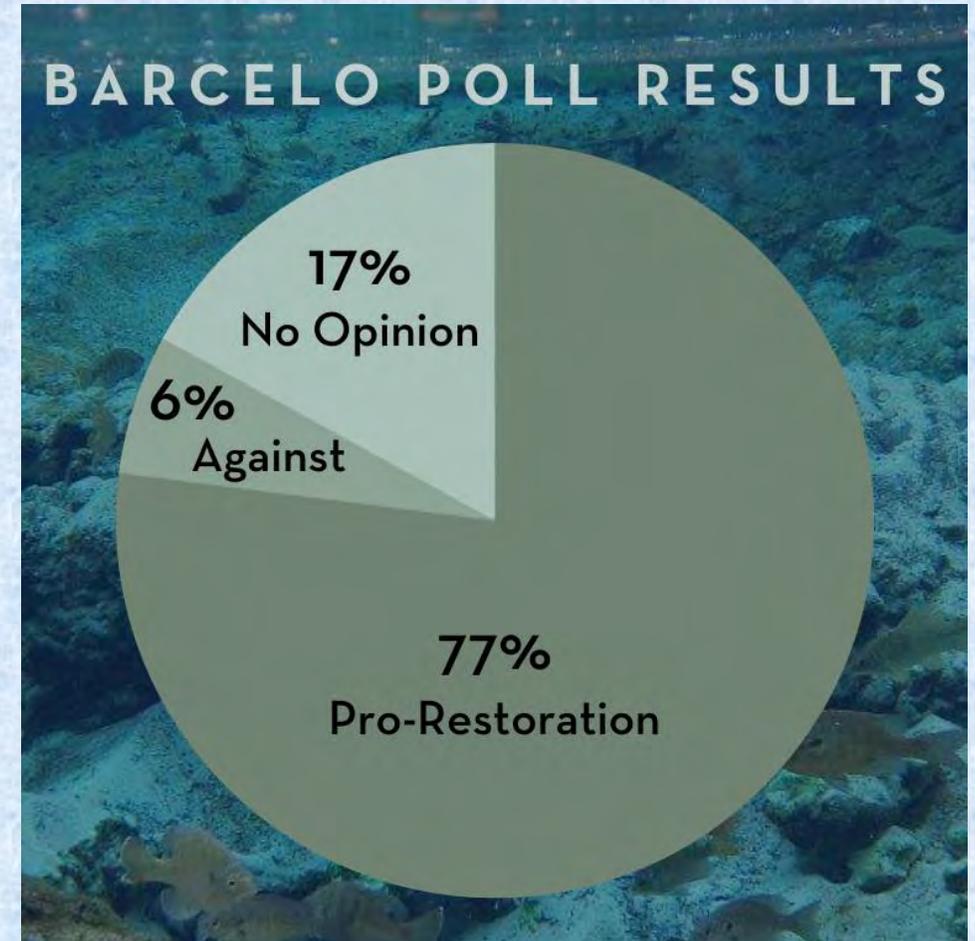
- 63.6% favored breaching the dam
- 9.5% favored maintaining the dam

Overwhelming Public Support Confirmed



2022 Barcelo & Company Poll Putnam & Marion Active Voters

- **77% support** restoring the flow of the Ocklawaha River
- **6% were against** restoring the flow
- **17%** had no opinion



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REUNITE THE RIVERS

SILVER SPRINGS • OCKLAWAHA • ST. JOHNS

New Organization: Great Florida Riverway Trust

New Theme: *Reunite the Rivers*

Campaign Goals

- 1. To build public awareness and support for Ocklawaha River restoration, with new focus on business and anglers.**
- 2. To influence Governor DeSantis and/or legislative leaders to recognize the will of the voters by authorizing the project and funding for:**
 - Partial Restoration**
 - Economic Package for Putnam and Marion Counties**
 - Recreation Improvements to Support a Positive Transition**



REUNITE THE RIVERS

SILVER SPRINGS • OCKLAWAHA • ST. JOHNS

HOW YOU CAN HELP

- Contact local legislative delegation members and local leaders in NE Florida.
- Support the Great Florida Riverway Trust and other NGOs working on project. Participate in the upcoming fall campaign to get out on the river.
- Get even more educated!
 - ✓ Visit greatfloridariverway.com/documentary for a one-hour documentary or greatfloridariverway.com/learn-more/fact-sheets to get more details on any of the issues presented today.
 - ✓ Reach out to me via caseyfitzsr@gmail.com if questions.

HOW NOT TO HELP – not even in jest!

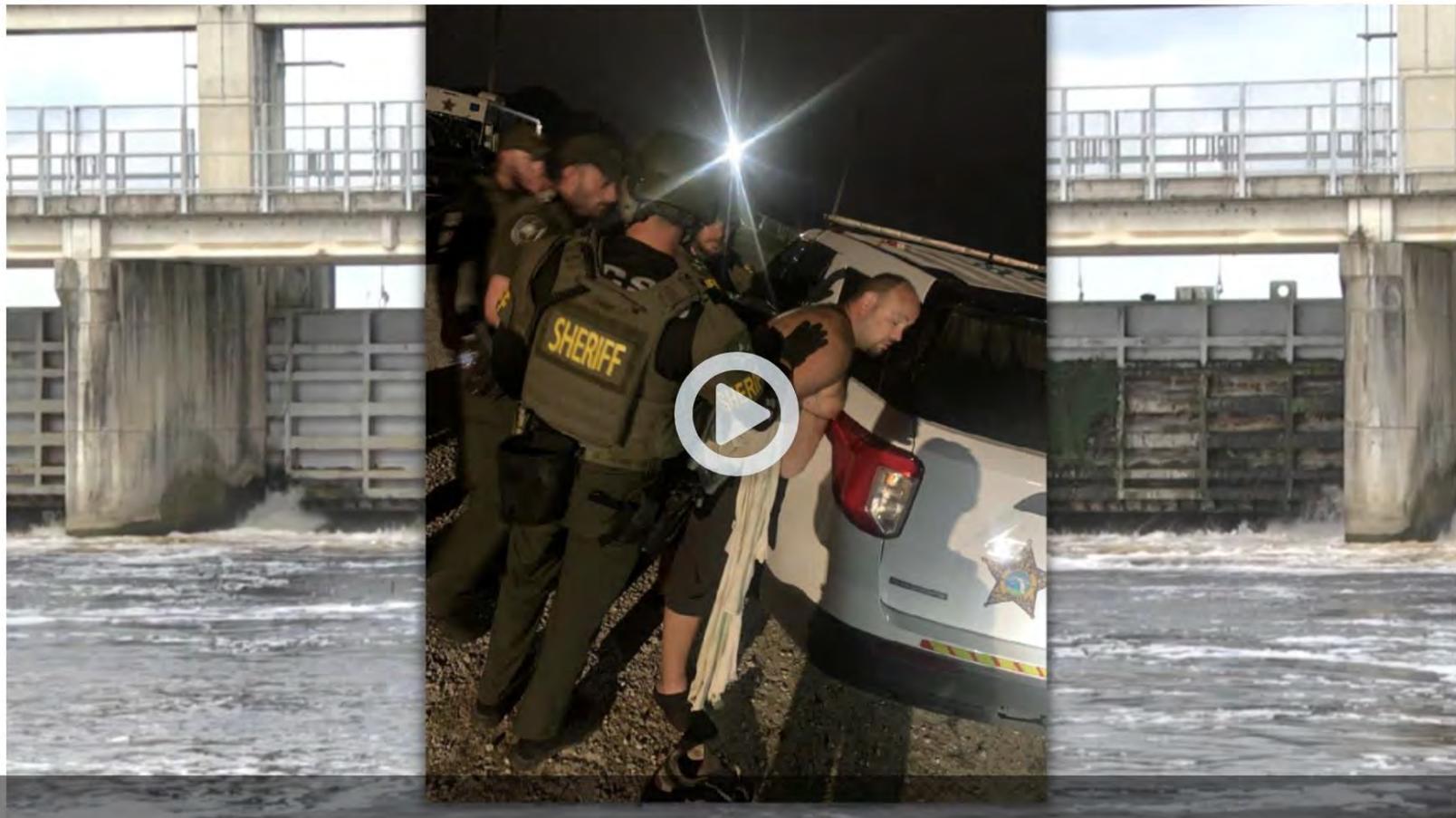


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Putnam County deputies arrest man threatening to blow up Rodman Dam

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Personal Battle Cry: “Breach or Bust 2024!”



Ocklawaha River



Silver Springs



St. Johns

Freetheocklawaha.com