Ocklawaha River Restoration as Mitigation

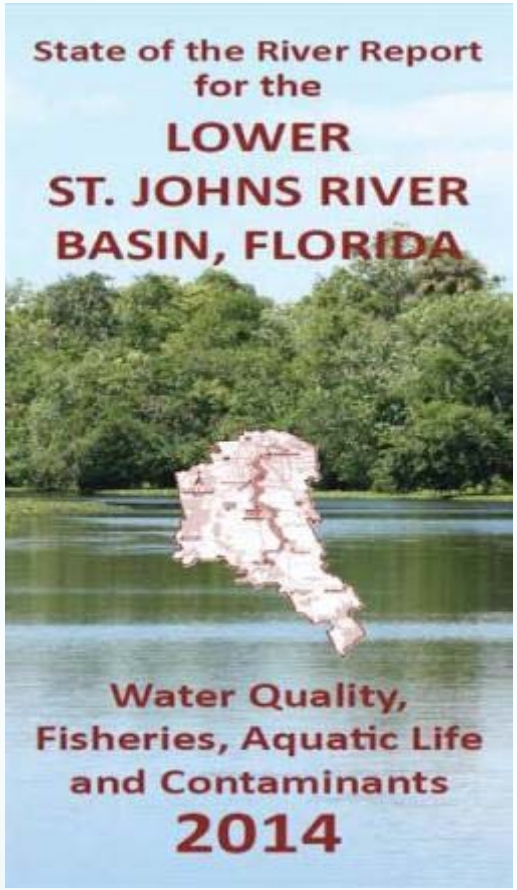
Dredging Will Further Harm the St. Johns

Salinity = Farther Upstream

- Impacting Wetlands
- Damaging Submerged Grasses
- Further Stressing Trees
- Altering Dissolved Oxygen Dynamics
- Threatening Endangered Species and Critical Fisheries Habitat

Erosion, Sedimentation, Turbidity, Siltation will Continue to Increase

Water Pollution will Worsen



2014 State of the River Report

Dredging activities are **expected to alter river salinity** along the entire navigation channel, even in upstream locations that are not a part of the current dredging plans.

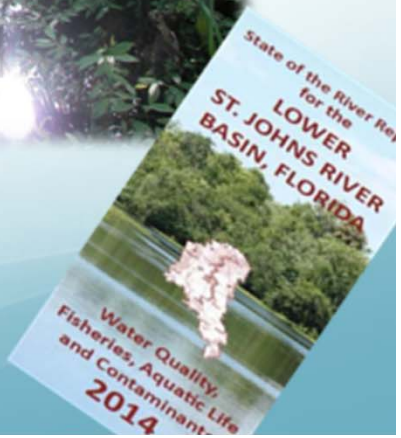
2003 Dredging

- 2 ft. from 38 to 40 ft. to RM 14.7
- *Salinity increase in the river in spite of adequate rainfall that year*

JU Jacksonville University
Valdosta State University
UNF University of North Florida
UNF Environmental Center
Marine Science Research Institute Jacksonville University
Millar Wilson Laboratory for Chemical Research

Areas of Greatest Impact

- Hardwood swamps
- Freshwater and transitional vegetation
- SAVs



Mitigation

Purpose:	"To offset environmental losses resulting from unavoidable impacts to waters of the United States"
Goal:	No net loss of wetland acreage and function
	-Amount
	-Type
Policy:	"Restoration should generally be the first option considered because . . . the potential gains in terms of aquatic resources are greater . . "

Proposed mitigation is **inadequate**

"Preserving existing healthy SAV and tidal freshwater wetlands **does not sufficiently compensate the public for the ecosystem services that will be lost due to deepening the federal navigation channel."**

NOAA FISHERIES

Ocklawaha River Restoration as Mitigation

Restoration of the lower Ocklawaha River would serve as ideal mitigation for the dredging impacts including loss of tidal freshwater wetlands in the St. Johns River

NOAA FISHERIES

Background

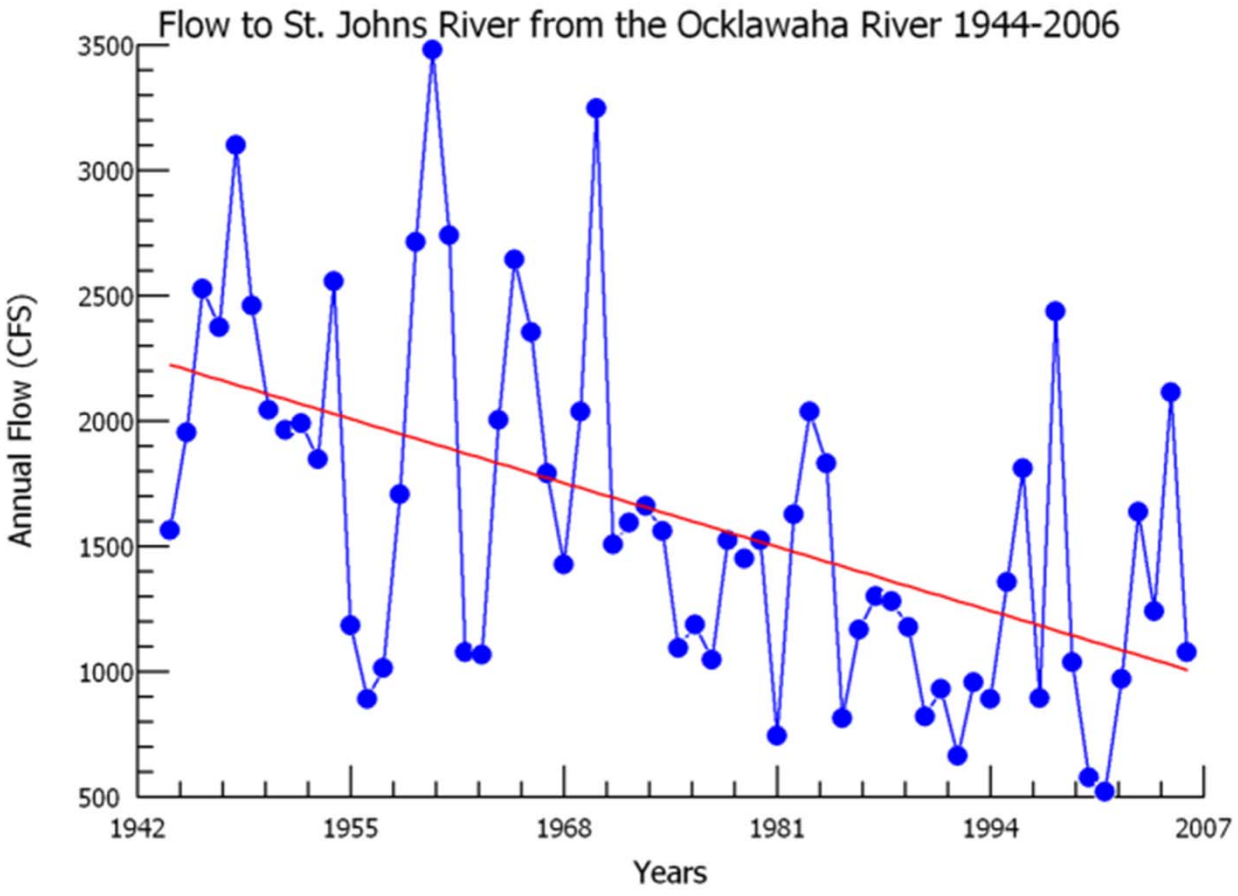
- The Ocklawaha River was dammed in 1968 to accommodate the Cross Florida Barge Canal.
- The water of the Ocklawaha River flooded nearly 8,000 acres of forested floodplain, 16 miles of river and 20 springs.
- A 1969 legal challenge by the Florida Defenders of the Environment halted construction of the Cross Florida Barge Canal in 1971.
- Unfortunately, the dam remained and remains today.

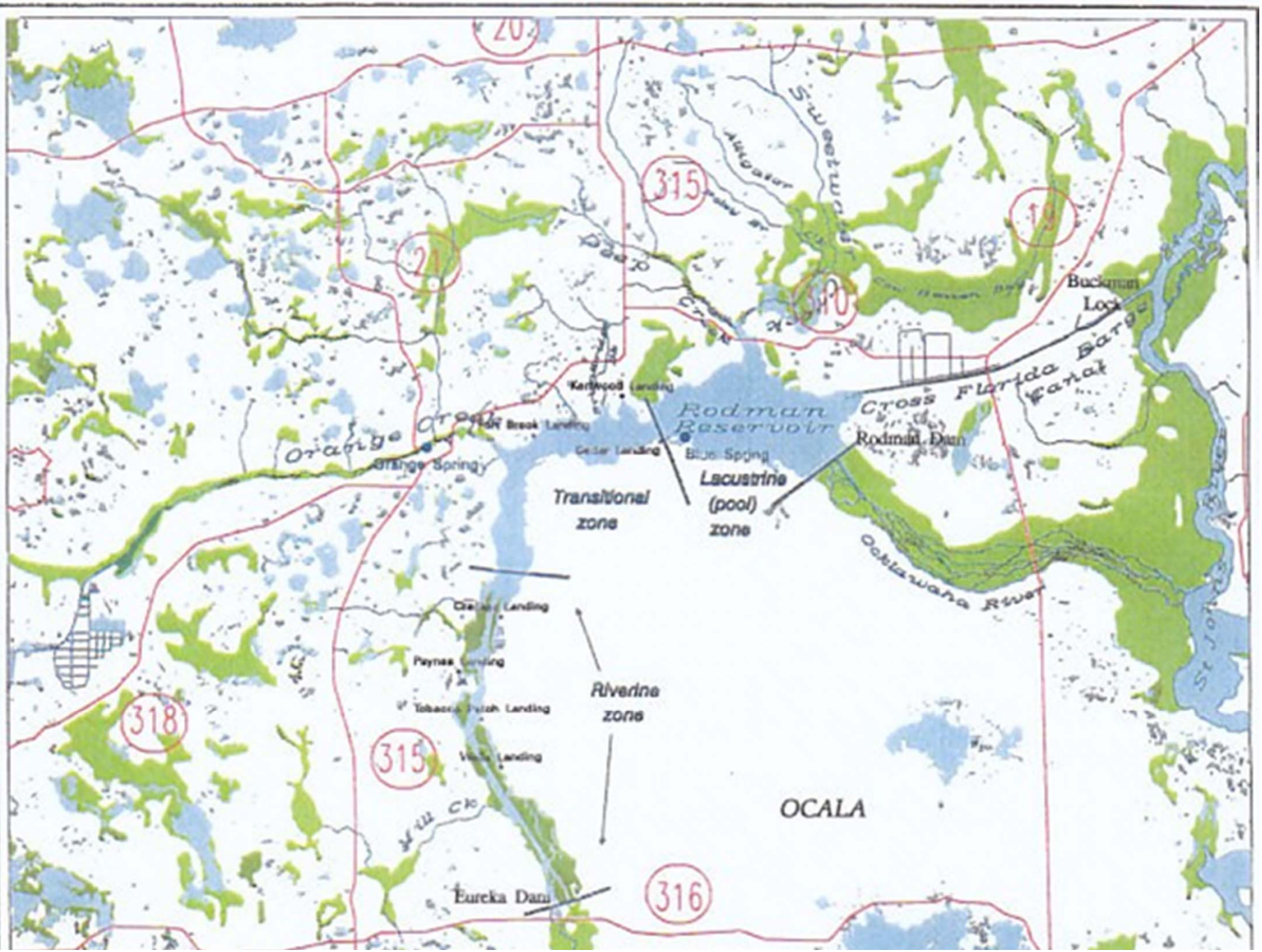
Current Conditions

- The Rodman Pool is choked with exotic vegetation that requires constant manipulation to avoid fish kills.
- The Rodman Dam restricts flow of water to the remaining 12 miles of the Ocklawaha causing significant harm to the publically-owned floodplain and depriving the St. Johns River of critical fresh water.
- Migratory fish are denied passage = 92% decrease in fish population since the construction of the dam.


Lower St. Johns River Basin
110 mile long estuary
Ocklawaha River = Largest Tributary

Freshwater Flow Reduction to the St. Johns




20
315
21
19
310
318
315
316
Rodman Reservoir
Cross Florida Barge Canal
Rodman Dam
Orange Creek
Orange Springs
Kerr Brook Landing
Cedar Landing
Blue Spring
Transitional zone
Lacustrine (pool) zone
Riverine zone
Ocklawaha River
Paynes Landing
Eureka Dam
OCALA

Critical Benefits to the St. Johns River

- Restoration of tidally influenced freshwater forested wetlands
- Restoration of Fresh Water Flow
- Water-quality improvements
- Dilution of increased salinities
- Benefit federally managed fisheries and endangered species habitat (such as Atlantic sturgeon)
- Most cost-efficient option

Restoration of Forested Wetlands

8,000 acres Restored/ 7,000 acres Improved

Water Quality Improvements

Floodplain Forest = Natural Bio-Filter

Restoration of Fresh Water Flow

- Reduced Reservoir Evaporation (48-50” per year)
- Increased Discharge of 20 Submerged Springs
- Will restore natural flow of approximately 300 million gallons a day to the St. Johns River
- Will protect existing wetlands and SAVs in the SJR

Benefits Endangered Species and Essential Fish Habitat

Studied and Endorsed by Multiple State and Federal Agencies

These studies provide most of the information needed by the U.S. Army Corps to pursue restoration of the lower Ocklawaha River as mitigation for the wetland impacts from dredging of the St. Johns River.

Restoring the function of the Ocklawaha River and its associated floodplain forest that are now submerged beneath Rodman Reservoir is a relatively straightforward process and can be accomplished at a cost far less than most restoration projects.

U.S. Department of Agriculture

- Recommended Ocklawaha Restoration as Mitigation for the dredging of the St. Johns
- USDA position is that removal of the dam infrastructure and restoration of the Ocklawaha River would result in substantial downstream and upstream benefits for water quality, recreation and endangered species.
- Multiple existing studies have addressed potential effects of removing the Kirkpatrick (Rodman) Dam and many of those have shown clear connections with resource concerns in the St. Johns River.

Ocklawaha River Restoration Endorsed by Florida Department of Environmental Protection

A partial restoration scenario, proposed by DEP and endorsed by the environmental community, involves conducting those minimal efforts necessary to restore the functions of the Ocklawaha River and floodplain to preconstruction conditions.

USACE Removes Ocklawaha Restoration from Mitigation Plan

Restoration of flow and ecological function in the Ocklawaha River may provide ecological benefits to the St. Johns River system.

Despite a finding that *"Removal of the dam would far exceed the amount of mitigation necessary . . .," t*his option was not supported by the non-federal sponsor as a component of a navigation project and was ultimately screened from the study.

"The base mitigation shall include measures in addition to land purchasing and preservation. Such measures could include **restoration of habitats of the lower Ocklawaha River to compensate for adverse effects to tidal freshwater wetlands** by removing Rodman Dam…"