



The Apalachicola River

Navigational Maintenance

for the

Apalachicola River

An Action Plan

***Teamwork to achieve consensus
in a resolutions of the elected
governmental bodies and NGOs
in the basin to drive policy
decisions.***

Snag Removal

Unanimous resolutions launched by

- ✓ ***City of Apalachicola***
- ✓ ***Franklin County***

***To confront obstructionist legal tactics
by extremist groups to oppose
riverway maintenance proposed by
USACE & approved by Florida DEP***

Supported by other entities throughout the basin

- ✓ Uptown Columbus
- ✓ City of Eufaula
- ✓ Columbus Chamber of Commerce
- ✓ City of Columbus, Georgia
- ✓ Chattahoochee River Warden
- ✓ Phenix City – Russell County Chamber of Commerce
- ✓ City of Phenix City, Alabama
- ✓ Barbour County, Alabama
- ✓ Friends of Lake Eufaula
- ✓ Houston County, Alabama
- ✓ Clay County, Georgia, Economic Development Council
- ✓ City of Bainbridge, Georgia
- ✓ Development Authority of Bainbridge and Decatur County
- ✓ TriRivers Waterway Development Association
- ✓ City of Chattahoochee, Florida

Navigational Background

❑ **Consistent navigational standards**

- Keep up with navigational maintenance activities still active in GA and AL to maintain consistent waterway.

❑ **Partnership to USACOE and USCG**

- Teamwork to achieve ^aconsensus in a resolution of the elected governmental bodies and NGOs in the basin.
- Resolutions to have consistent language to uniformly communicate desires for improved management of the resource for stated objectives of economic opportunity and ecologic protection.

Navigational Background

□ Historical background

- International operations during the mid to late 1800s on through the early 1900s. Changing commerce has seen many permutations up through current.
- Evaluate COE specifics on drop in commercial river use since cessation of channel maintenance in 2001.
- Lessons from the past as insights into the future.

Economic Development

**Requires
Navigational
Improvements**

Economic Development Opportunities

- Traditional – History of maritime trades in the ACF as a case study for future plans of successful commerce
- Industrial – regional Growth
 - Stewart machinery needs and exports
 - Agri chemicals
 - Asphalt
- New commercial port driven by new Panama Canal Zone influence
 - Port St. Joe deep water port plan

Economic Development Opportunities

➤ Commercial passenger recreational tourism

- Riverboat trips
- Experiential educational based on authenticity and organized thorough educational content
- Currently unfolding story of the paddlewheel vessel Jean Mary
- Recreational Vehicle barges

➤ Individual recreational tourism

- Columbus Whitewater park as a case study of emerging significance of recreational opportunities
- Fishing, Individual and tournaments
- Hunting, guided
- Photo safari

Economic Development Opportunities

➤ Paddle trips

- Blueway designation to connect Appalachian Trail with the Gulf of Mexico
- A natural extension of the whitewater park in Columbus
- Other paddle trails incorporate overnight accommodations

➤ Marinas

- Provides mariners access to the Gulf from as far as Columbus

A Case Study

River tourism, a growing pursuit globally, provides a sustainable development opportunity for the Apalachicola River. Because river tourism is almost always grounded in cultural heritage tourism and ecotourism (with the exception of gambling cruises not applicable to the Apalachicola), it is has been shown across a substantial social science literature to contribute to the health of involved communities and even to the ecological health of rivers.

A Case Study

River tourism promotes cultural heritage preservation, incentivizes ecological stewardship, integrates with other forms of sustainable tourism, and brings employment, economic stimulation, and restoration efforts often to communities with blighted infrastructures from more prosperous days of commercial river traffic.

A Case Study

Importantly, river tourism is an opportunity that will attract people who seek to learn more about, and enjoy the relatively undeveloped state of, the Apalachicola River from regional, national, and international pools of travelers which already exist and enjoy river cruises in the United States Southeast and globally.

A Case Study

An industry report by the Cruise Lines International Association declares in its 2014 survey that 60% of travel agents surveyed reported that their clients had a “high interest” in river cruises, and U.S. rivers especially were seen as a desirable destination (Gerlak 2014). Major world rivers with substantial river tourism include the Nile, Amazon, Rhine, Volga, Danube, Colorado, Mississippi, Ganges, Yangzi, and Mekong.

A Case Study

In the United States, tourism and recreation corridors planned along the Mississippi River have improved the livelihood of riverside communities (Prideaux and Cooper 2009) while promoting visitor interest in and spending on local products and services such as the “music, literature, cuisine, and traditions of the South.” Other river cruises in the United States, such as tours of the Columbia and Snake Rivers on the paddle wheeler American Express, provide visitors with substantial knowledge of regional history and ecology. These high-end vacation options attract history and nature enthusiasts, and paddle wheelers are often associated with the National Trust for Historic Preservation.

A Case Study

River tourism may positively impact tourism in port cities by revealing to visitors the relevance of the port cities' heritage to a larger regional cultural and natural heritage. A study of heritage tourism in the Port of Echuca on Australia's Murray River, which became a site of heritage and river tourism almost sixty years after the decline of major commercial river traffic, has shown that the value of this tourism can be measured from a number of perspectives: as a provider of employment, as an iconic experience that underpins the sustainability of the regional industry, as an educational experience, and as an activity that has encouraged local participation and maximized local benefits (Prideaux 2009).

A Case Study

A concern in analysis of river tourism by tourism studies scholars is the central dependence of such tourism on nonhuman elements such as river conditions. As recent water contamination events in West Virginia, as well as low water flows California show, river tourism is susceptible to environmental events and to disruption. However, the literature suggests this may not be a detriment for stakeholders, as responsible river tourism furthers the interest of maintaining and protecting a healthy river. A study in Kruger National Park in South Africa (Turpie and Joubert 2001) further suggests that river tourism increases the valuation of ecosystem services provided by a river, increasing the value of the river for various political and civil society actors and furthering the preservation of the river's ecological health. Such an association between river tourism and river stewardship has also been documented in Malaysia (Chan 2012).

A Case Study

Responsible river tourism along the Apalachicola River is likely to benefit local stakeholders and promote education about, and stewardship of, the river. Studies from various global sites suggest river tourism is a means of promoting cultural, ecological, and economic health.

A Case Study

Chan, Ngai Weng. "Managing urban rivers and water quality in Malaysia for sustainable water resources." International Journal of Water Resources Development 28, no. 2 (2012): 343-354.

Gerlak, Lani. "The State of the Cruise Industry in 2014: Global Growth in Passenger Numbers and Product Offerings."

Prideaux, B. "River Heritage: the Murray–Darling River." River Tourism (2009): 165.

Prideaux, Bruce, and Malcolm Cooper, eds. River tourism. Cabi, 2009.

Turpie, Jane, and Alison Joubert. "Estimating potential impacts of a change in river quality on the tourism value of Kruger National Park: an application of travel cost, contingent, and conjoint valuation methods." Water Sa 27, no. 3 (2001): 387-398.

Improved Resource Management

Through Innovation
and Technology
Implementation

Improved Resource Management

- Reduce channel width where significant downward sloping portions exist to reduce flow by hydrologic analysis. Long flat portions can remain full width. Implement bathometric and sea level data in analysis and planning.
- Improve safety of travel through use of AIS technology to allow river traffic information to be sent/received by standard GPS units and mobile handheld devices in the future. This to apply for commercial transponders and recreational receivers.

Improved Resource Management

- Ramping methodology used during water flow rate changes provide criterion which avoid quick rise and fall of river levels which leave aquatic species stranded. Currently utilized to accommodate spawning cycles, may also be utilized during periods of low flow to vary levels below the 2.3 billion gallons (5kCPS) per day which implement wave intermittent high / low flows around the current static release schedule .

Concept is to simulate more of the sine wave pulsating pattern more naturally occurring based on periodic rains, lunar tide extremes, etc. Rhythmic schedules for peaks every other week, for instance, would simulate natural patterns while supporting navigation windows for up / down river transportation. Note recent traversal by COE General Irwin snag operation which traversed with 6' draft at 10kCFS.

Improved Resource Management

- Web distribution of all information for users of the resource including, but not limited to
 - Planned river levels,
 - Maintenance activities
 - COE – Snagging, dredging
 - USCG – navigation aid updates, perils, etc
 - Bathometric charts
 - User conveniences (as with cruising guide)
 - Fuel docks
 - Tow boat services
 - Recommended anchorages or docking
 - Emergency service locations and contact information

Environmental protection & enhancement

- Snag removal technology driven process improvements that benefit river systems ecology, decrease process costs while removing perils to navigation via use of clip and drop methodology.
- Ramping methodology described earlier for periods of low flow better simulate natural patterns of periodic rainfall and thus natural river cycles much better than a static 5kCFS).

Environmental protection & enhancement

- Large wakes to be more scrupulously controlled to remove safety hazards for small power craft, paddles and shore fishermen will also minimize bank erosion and related ecologic adverse effects. Noted that small planning craft create little wake and thus less issues than larger trawler style or barge vessels even at low speed.
- Pump out services for boats, river cabins, etc to be required for all human waste. Prohibition of floating dog kennels.

Environmental protection & enhancement

- Fueling stations to implement “Clean Marina” standards. Mostly assured through rigorous state regulations. Evaluate options for retail gas boats / barges to minimize land based infrastructure.
- Charts to identify environmentally critical area to advise mariners caution and appreciation for resources.