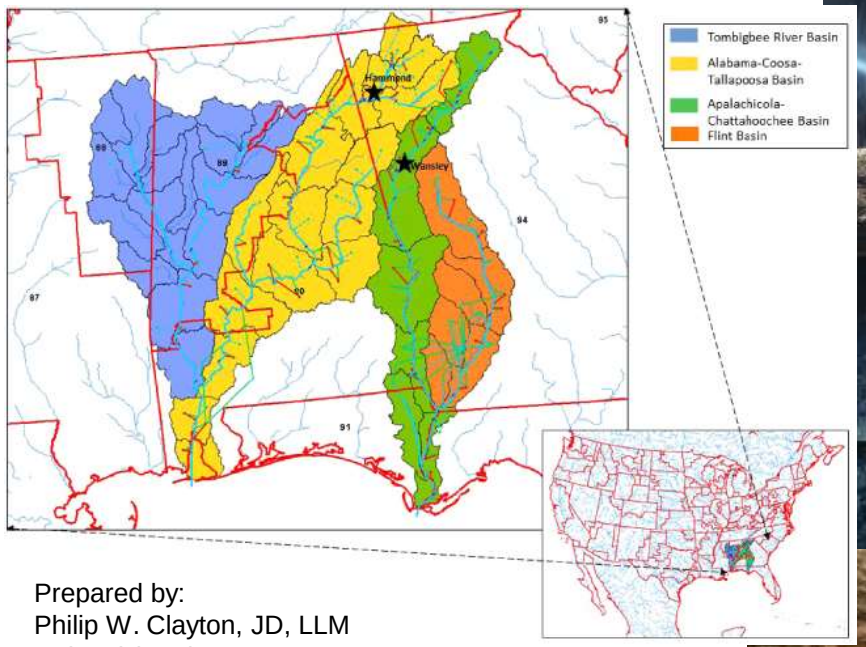
Apalachicola Chattahoochee Flint River Basin (ACF)

Economic Significance to SE Alabama, SW Georgia, and North Florida



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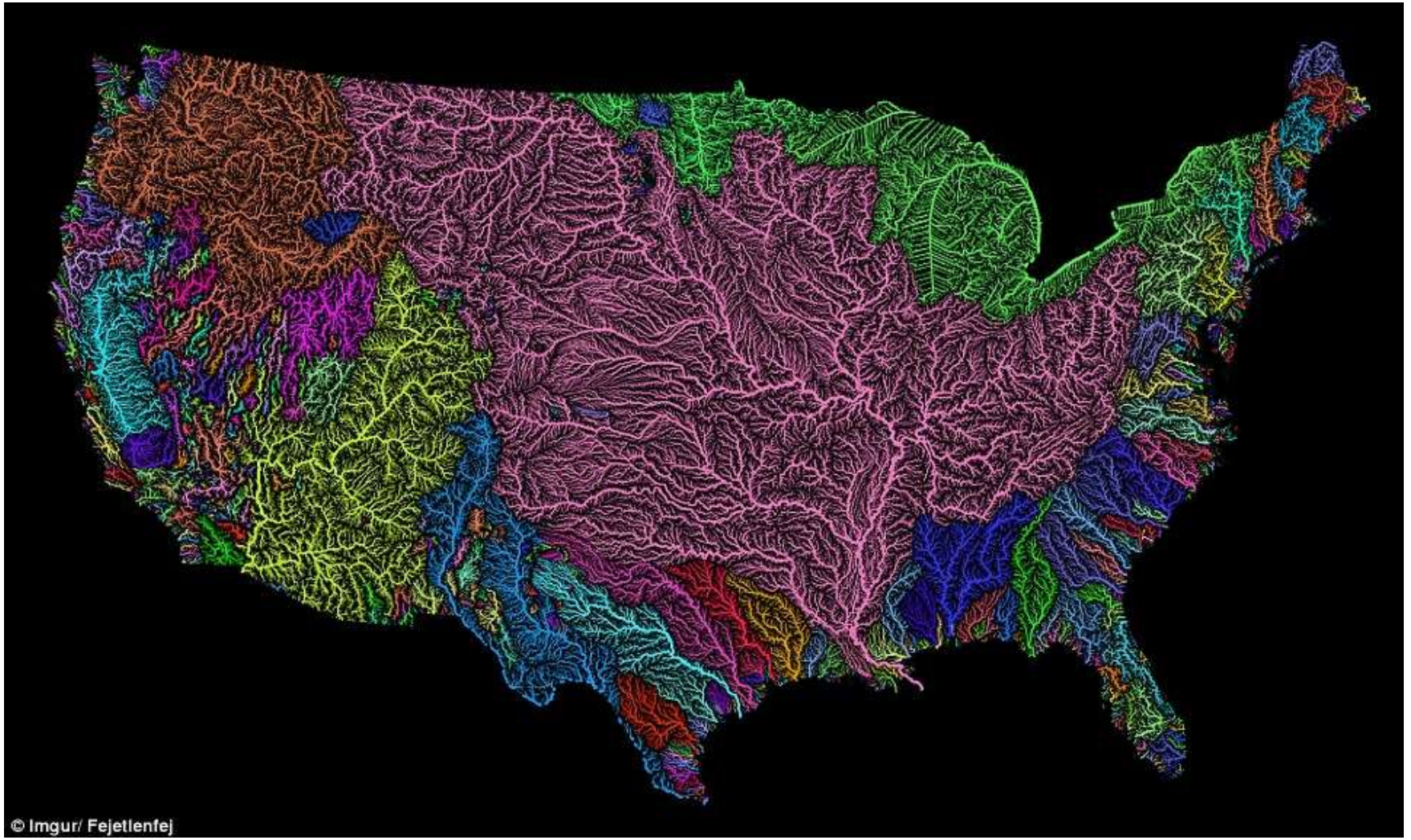
Waters of the United States



http://www.dailymail.co.uk/sciencetech/article-3860062/The-veins-America-Stunning-map-shows-river-basin-US.html

America's Inland Waterways:

An "Inland Marine Highway" for Freight Transportation

Our "inland marine highways" move commerce to and from 38 states throughout the nation's heartland and Pacific Northwest, serve industrial and agricultural centers, and facilitate imports and exports at gateway ports on the Gulf Coast.

- 12,000 miles of commercially navigable channels
- 192 lock sites

NATIONAL WATERWAYS FOUNDATION

ACF Project Information

Navigation

- ~$6.2 B in lock infrastructure sitting unused and with very limited maintenance since 2003
- 261 Miles of authorized channel from Gulf Intracoastal Waterway (GIWW) to Columbus, GA
- Dredging of Apalachicola segment (FL) last occurred in 2001
- US Army Corps of Engineers (USACE) annual appropriation for all Civil Works is ~~$8.7 Billion (Proposed FY2023)
- USACE 2020 estimate of $94.2 mil to repair all 3 locks and spillways (1.6% of the annual budget)
- US Army Corps of Engineers (USACE) will not allocate resources per the OMB utilization algorithm (maintenance requirements X commercial utilization = annual funding)

- HQ, South Atlantic Division, USACE has additional funding under the Infrastructure Investment and Jobs Act (IIJA)

- With locks repaired the system is 65-70% reliable for commercial nav most years (Nov – Jul)
- Limited dredging may be required at Mile Marks 77.8, 40.5, and 36.5 (~< 9 miles of channel)
- Limited dredging, even to 7.5 feet, in the shallow areas improves reliability to 90-95%
- $ 8.5 to 10 mil annually needed to keep project at acceptable level of maintenance (utilization will allow funding through the annual civil works appropriation)

ACF Project Information

Economics[2&3]

- The tri-state region bounding the lower ACF is an economically depressed area
- Poverty rates in the region are nearly twice that of the national average
- The economic potential of commercial navigation are significant to the region
- Greatly reduces the wear and tear on existing road infrastructure due to heavy loads
- Current Industry and Water Supply – tristate $7.1B and 39,000 jobs
- Current Tourism – tristate $662M and 5,100 jobs

- Commercial Navigation – tristate[2]
  - Currently 27 potential users identified – includes National Defense, renewable energy (wood pellets and nuclear)
  - Est. 80 to 416 barge shipments per year (23,296 truck equivalent loads)
  - Potential for over 3.33 million tons of cargo annually
  - At 2.1 mil tons, potential for over 29,400 new jobs and $1.99 billion in total economic impact over 10 years[3]
  - Yields an additional $2.4 billion in tax revenue over ten years (18:1 ROI for government investment of $136 million for repairs)[3]

Economic Impact

Rate of Return and Net Increase in Total Economic Impact of Lower ACF Basin Restoration Under Alternative Assumptions

Growth Assumption	Tons	Direct Employment Impact (JOBS)	Direct Output Impact	Output Total Impact	Net Increase in Output	Average Annual Rate of Return (Present Value)	Return for $1 in Spending (Present Value)
27.5%	446,250	6,266	$235m	$423m	$91m	0%	$1.0
50%	525,000	7,372	$277m	$498m	$166m	4%	$2.0
75%	612,500	8,600	$323m	$581m	$249m	18%	$3.0
100%	700,000	9,829	$269m	$664m	$322m	24%	$4.0
500%	2,100,000	29,487	$738m	$1,994m	$1,700m	178%	$18

Source: Deravi, M. Keivan, PhD. Economic Research Services, Inc., August 2021, The Economic Impact of Restoration of Infrastructure on the Lower Apalachicola-Chattahoochee-Flint River Basin.

Economic Impact for Georgia

Increase in Total Economic Impact of Lower ACF Basin Restoration Under Alternative Assumptions for Georgia

Tons per Year	Tons Per Year	Direct Employment Impact (JOBS)	Direct Output Impact	Output Total Impact
50.00%	525,000	3,760	$141m	$254m
75.00%	612,500	4,386	$165m	$296m
100.00%	700,000	5,013	$137m	$339m
500.00%	2,100,000	15,038	$376m	$1,017m

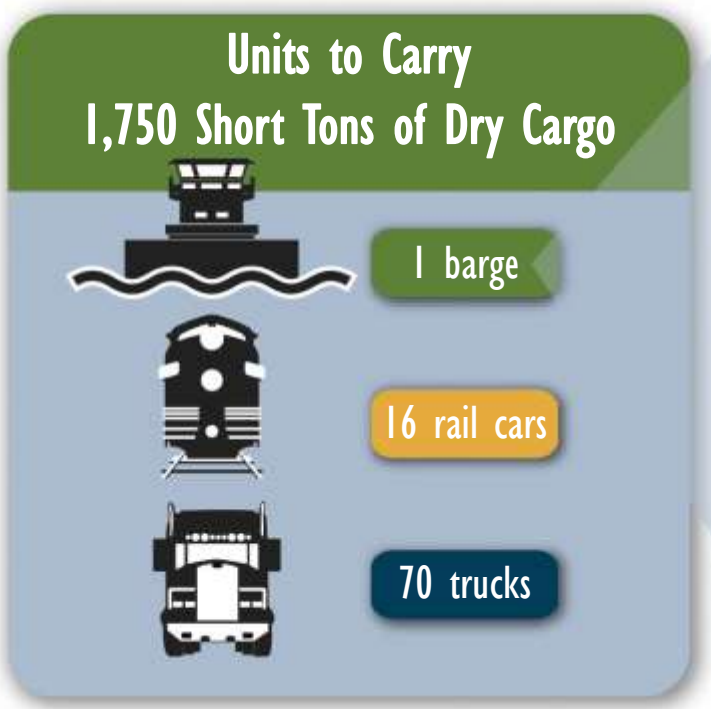
Source: Deravi, M. Keivan, PhD. Economic Research Services, Inc., August 2021, The Economic Impact of Restoration of Infrastructure on the Lower Apalachicola-Chattahoochee-Flint River Basin.

Environmental Restoration Opportunity

- Site 39 (Liberty Co) is 14.8 acres and 300,000 cu yds
- Site 40 (Gulf Co) is 9.7 acres and 500,000 cu yds
- Mineral Manufacturing Co is willing to remove the materials and contribute funds for site restoration
- One of many possible locations (Within bank disposal areas) for material removal and restoration of native trees and grasses

Advantages of Inland Waterways Transport:

Easing Rail and Highway Congestion in Our Communities



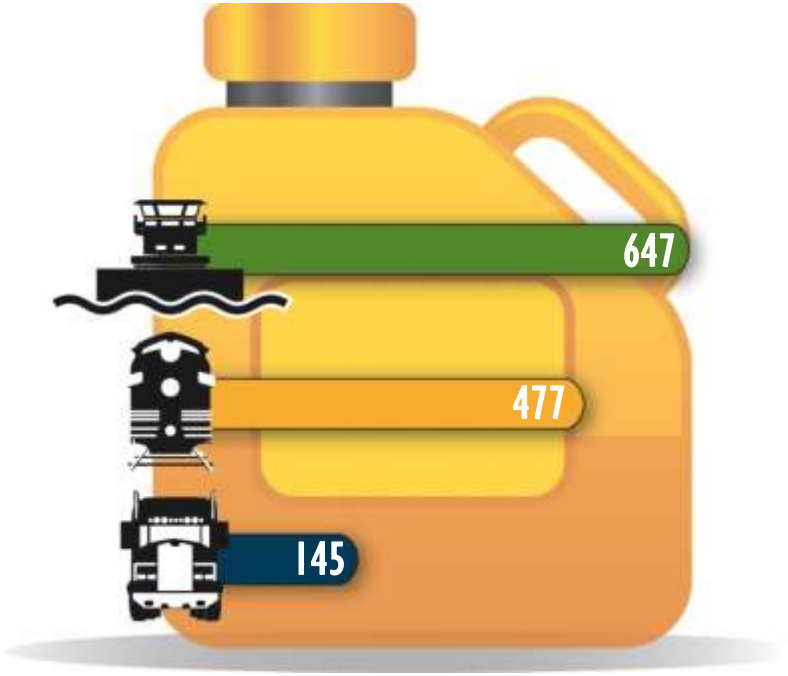
One loaded covered hopper barge carries 58,333 bushels of wheat, enough to make almost 2.5 million loaves of bread.

NATIONAL WATERWAYS FOUNDATION

Moving Freight Efficiently Throughout America

Transporting freight by water is also the most energy-efficient choice.

Barges can move one ton of cargo 647 miles per gallon of fuel. A rail car would move the same ton of cargo 477 miles, and a truck only 145 miles.

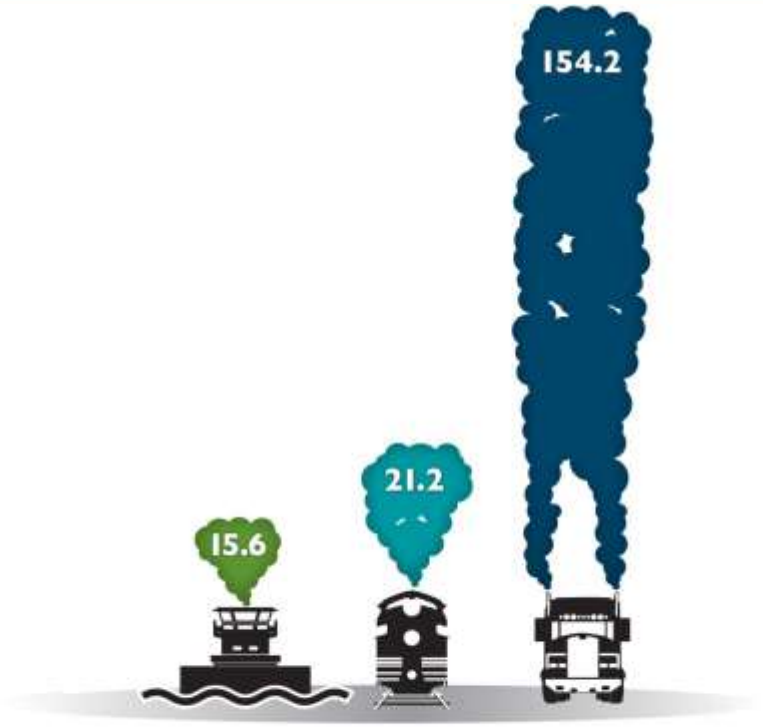


Ton-miles Traveled per Gallon of Fuel

The Greener Way to Move America's Cargoes

Barges have the smallest carbon footprint among other transportation modes.

To move an identical amount of cargo by rail generates 30% more carbon dioxide than by barge, and 10 times more emissions by trucks than by barge.

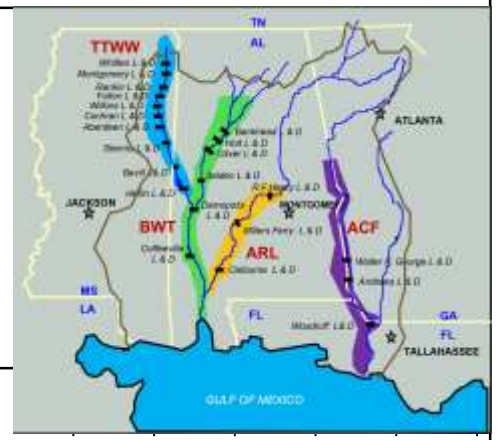


MOBILE DISTRICT
IN-HOUSE LOCK CLOSURE SCHEDULE

Jun 22 | Sep 22 | Dec 22 | Mar 23 | Jun 23 | Sep 23 | Dec 23 | Mar 24 | Jun 24 | Sep 24 | Dec 24 | Mar 25 | Jun 25 | Sep 25 | Dec 25 | Mar 26 | Jun 26 | Sep 26 | Dec 26 | Mar 27 | Jun 27 | Sep 27 | Dec 27 | Mar 28 | Jun 28 | Sep 28 | Dec 28 | Mar 29 | Jun 29

TTWW

- Whitten Culvert Design
- Whitten Lock Closure
- Aberdeen Lock Closure (FY23 Request)
- Stennis Lock Closure (FY23 Request)
- Wilkins Lock Closure (FY24 IIJA Request)
- Cochran Lock Closure (FY24 IIJA Request)



BWT

- Demopolis Lower Miter Gate Fabrication
- Demopolis Lock Closure (FY25 Pbud Request)
- Coffeeville Lower Miter Gate Fabrication
- Coffeeville Lock Closure (FY25 Pbud Request)

ACF

- Woodruff Dewatering Plan (FY23 Workplan Request)
- Woodruff Lock Closure (FY24 IIJA Request)
- Andrews Lock Closure (FY24 Request)
- George Dewatering Plan/Work (FY23 Request)
- George Lock Closure (FY24 IIJA Request)

DURATION

FUNDED | REQUESTED

ACF Conclusions and Recommendation

- Encourage Congressional Delegations to recommend South Atlantic Division execute IIJA funding to repair the ACF

- Full potential for over 3.33 million tons of cargo annually
- A $136 million repair investment yields over 29,400 jobs and $1.99 billion in total economic output over 10 years.[3]
- Ecological concerns must be a part of the conversation as to how channel restoration might be accomplished (techniques, disposal, etc.)
- The ACF is a crucial infrastructure asset to the nation and should be adequately maintained for ecological concerns, health and safety of downstream residences, industrial users, water supply, recreation, and commercial navigation

References:
1. Mixon, Phillip PhD., Associate Prof of Economics, 2020, January 7, Economic Impact of the Mid/Lower Apalachicola-Chattahoochee-Flint Waterway.
2. Clayton, Philip JD, LLM, 2020, Aug 20, ACF Customer Utilization Survey, unpublished, Eufaula Barbour Co. Chamber of Commerce.
3. Deravi, M. Keivan, PhD. Economic Research Services, Inc., August 2021, The Economic Impact of Restoration of Infrastructure on the Lower Apalachicola-Chattahoochee-Flint River Basin.

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Backup Information

Economic Impact for Alabama

Increase in Total Economic Impact of Lower ACF Basin Restoration Under Alternative Assumptions for Alabama

Tons per Year	Tons Per Year	Direct Employment Impact (JOBS)	Direct Output Impact	Output Total Impact
50.00%	525,000	2,875	$108m	$194m
75.00%	612,500	3,354	$126m	$227m
100.00%	700,000	3,833	$105m	$259m
500.00%	2,100,000	11,500	$288m	$778m

Source: Deravi, M. Keivan, PhD. Economic Research Services, Inc., August 2021, The Economic Impact of Restoration of Infrastructure on the Lower Apalachicola-Chattahoochee-Flint River Basin.

Economic Impact for Florida

Increase in Total Economic Impact of Lower ACF Basin Restoration Under Alternative Assumptions for Florida

Tons per Year	Tons Per Year	Direct Employment Impact (JOBS)	Direct Output Impact	Output Total Impact
50.00%	525,000	737	$28m	$50m
75.00%	612,500	860	$32m	$58m
100.00%	700,000	983	$27m	$66m
500.00%	2,100,000	2,949	$74m	$199m

Source: Deravi, M. Keivan, PhD. Economic Research Services, Inc., August 2021, The Economic Impact of Restoration of Infrastructure on the Lower Apalachicola-Chattahoochee-Flint River Basin.

Analysis of the Economic Impact

- The restoration can create thousands of jobs and produce a return on investment that can reach an average annual rate of 24%.
- Furthermore, the investment on the ACF river system is a responsible economic policy since it follows one of the most revered economic axioms, namely, the law of comparative advantage.
- The counties around the ACF lower basin need this investment since most of them have high poverty rates and the river is their only economic asset.
- While large economic impact multipliers and impressive return on investment act as the necessary conditions for implementing this investment on a priori, the most significant aspect of this policy is its impact on revitalization of economic prosperity and security.
- This economic policy can lead to greater equity and inclusion for an economically depressed area.