



A VISION FOR AQUATIC RESTORATION OF THE COOSA RIVER: a bridge to the future

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Southeastern Fishes Council, 2018

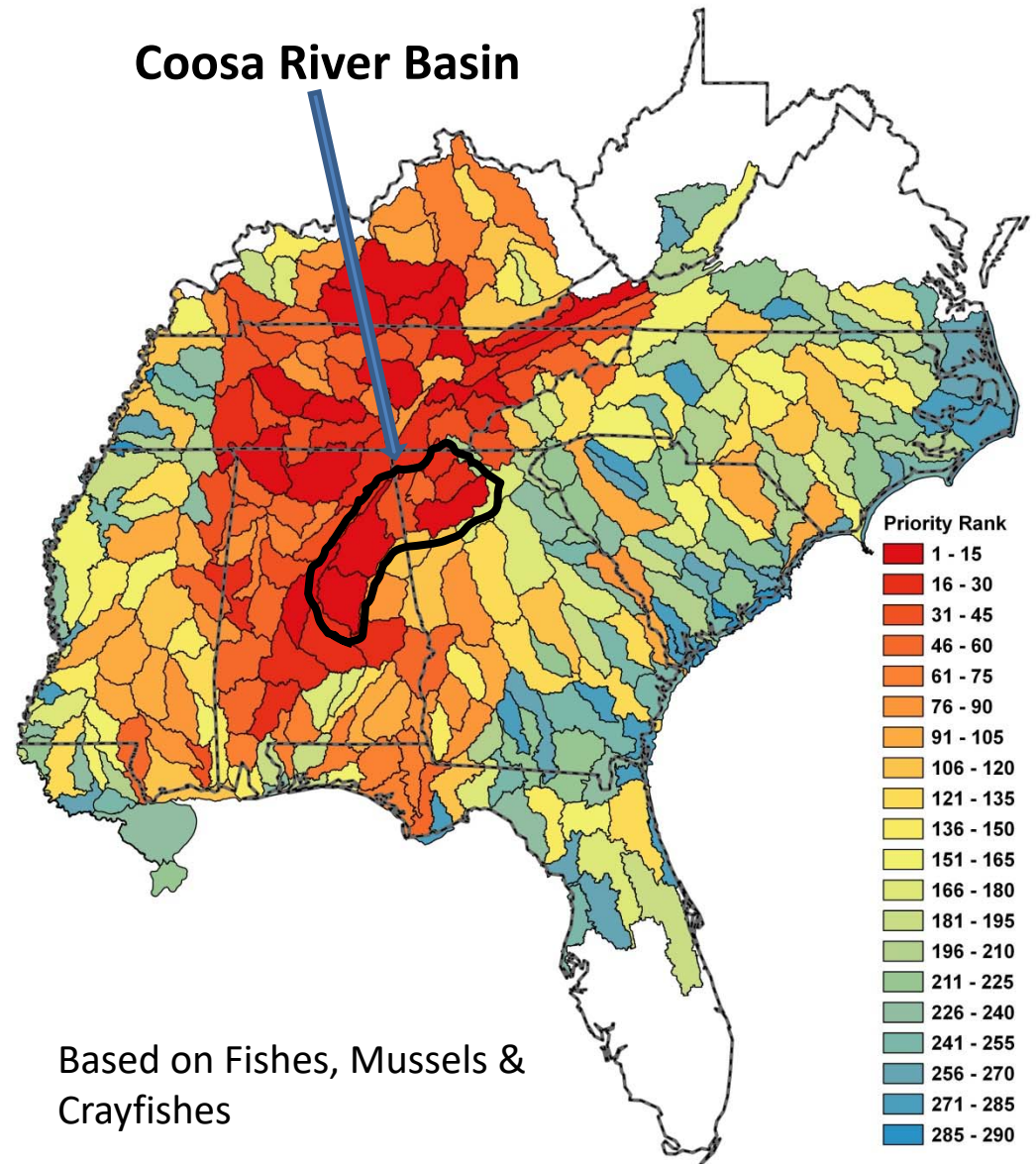
Southeastern Aquatic Diversity

Two of the three Coosa River HUCS have the highest priority watershed score.

In the Coosa Basin 5 of the 7 HUCS have a high priority score.

Aquatic snail data is not available, but the Coosa once supported the highest snail diversity of any equivalent-sized river.

Map Product – Tennessee Aquarium,
UGA River Basins Center with
support from National Fish and
Wildlife Foundation



Background – Geography and Stats

The Coosa River begins at the confluence of the Oostanaula and Etowah Rivers at Rome, Georgia.

The Coosa River ends just north of Montgomery, AL, joining the Tallapoosa River to form the Alabama River.

Coosa River is about 270 RM in length.

About 90% of the Coosa River's length is located in Alabama.

Elevation at Rome 575 ft (175 m)
& at Wetumpka 121 ft (37 m)
(difference 454 feet or 138 m)

Discharge - Coosa River at Jordan Dam near Wetumpka, AL

- average 15,950 cu ft/s
- maximum 256,000 cu ft/s
- minimum 54 cu ft/s



Coosa Basin Dams

Alabama
Power

Army
Corps of
Engineers

Name of Structure

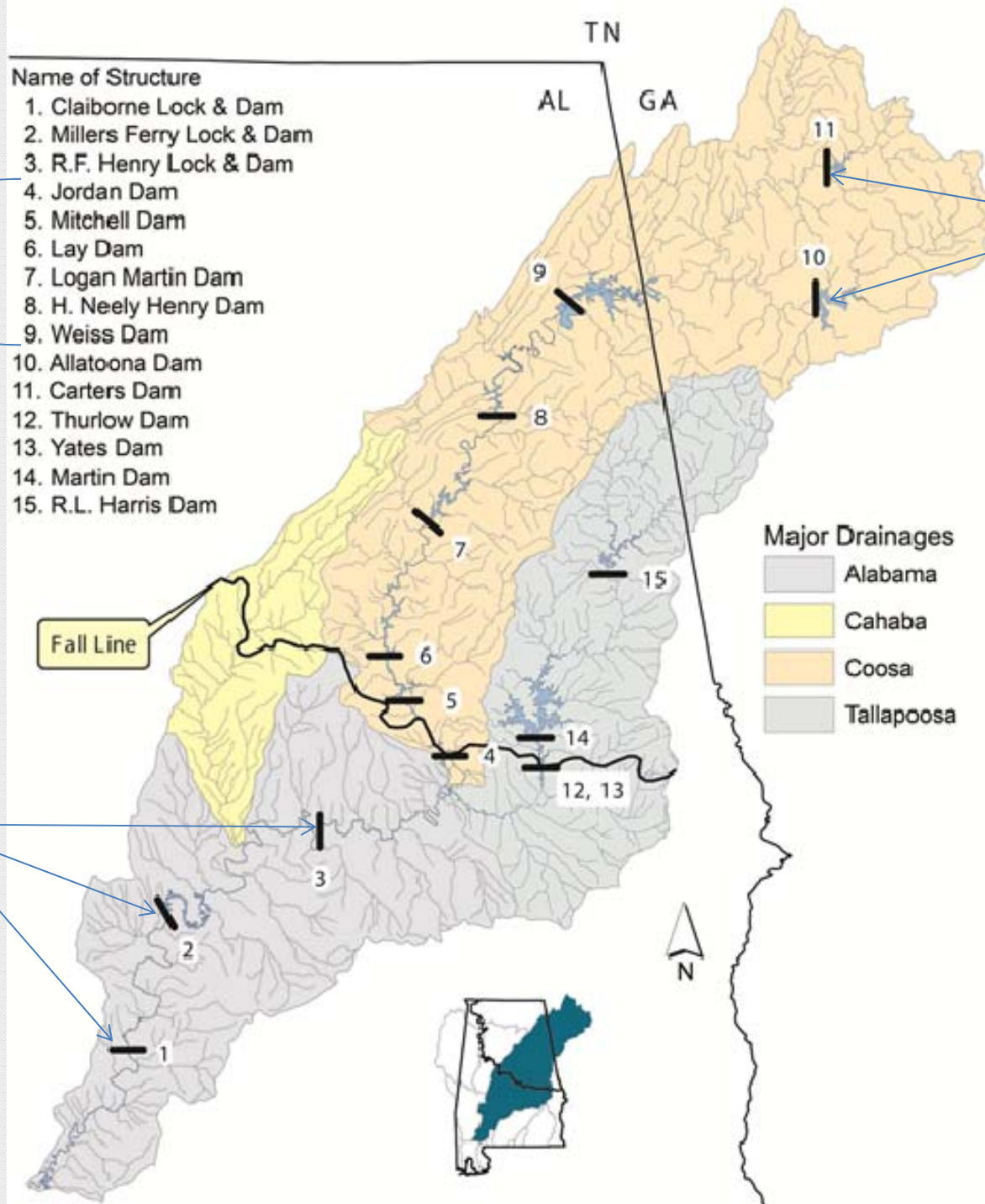
1. Claiborne Lock & Dam
2. Millers Ferry Lock & Dam
3. R.F. Henry Lock & Dam
4. Jordan Dam
5. Mitchell Dam
6. Lay Dam
7. Logan Martin Dam
8. H. Neely Henry Dam
9. Weiss Dam
10. Allatoona Dam
11. Carters Dam
12. Thurlow Dam
13. Yates Dam
14. Martin Dam
15. R.L. Harris Dam

Fall Line

Major Drainages

- Alabama
- Cahaba
- Coosa
- Tallapoosa

Army
Corps of
Engineers



Coosa River Main Channel Dams

Name of Dam	Date of Completion	Depth at Dam	Impound Length	Pool Elevation
Jordan	1928	110	18 miles	252 ft
Mitchell	1923	90	14 miles	312 ft
Lay	1914	88	48 miles	396 ft
Logan Martin	1964	69	48 miles	465 ft
Neely Henry	1974	53	77 miles	508 ft
Weiss	1961	62	52 miles	564 ft

Dams listed in order from downstream to upstream

Alteration of the Coosa River

1876 First dredging of shoals for navigation by federal government.

Construction of navigation locks and dams on the Coosa began in the late 1800s & early 1900s.

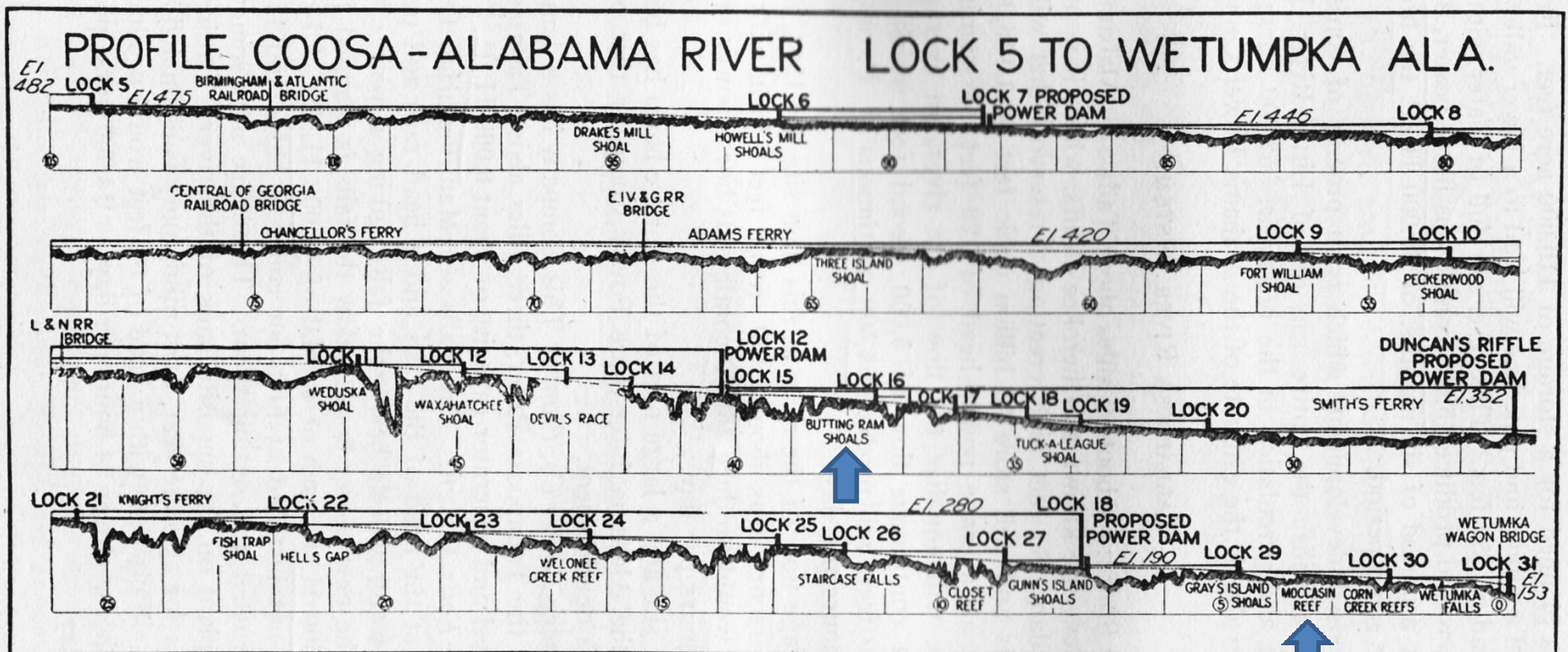
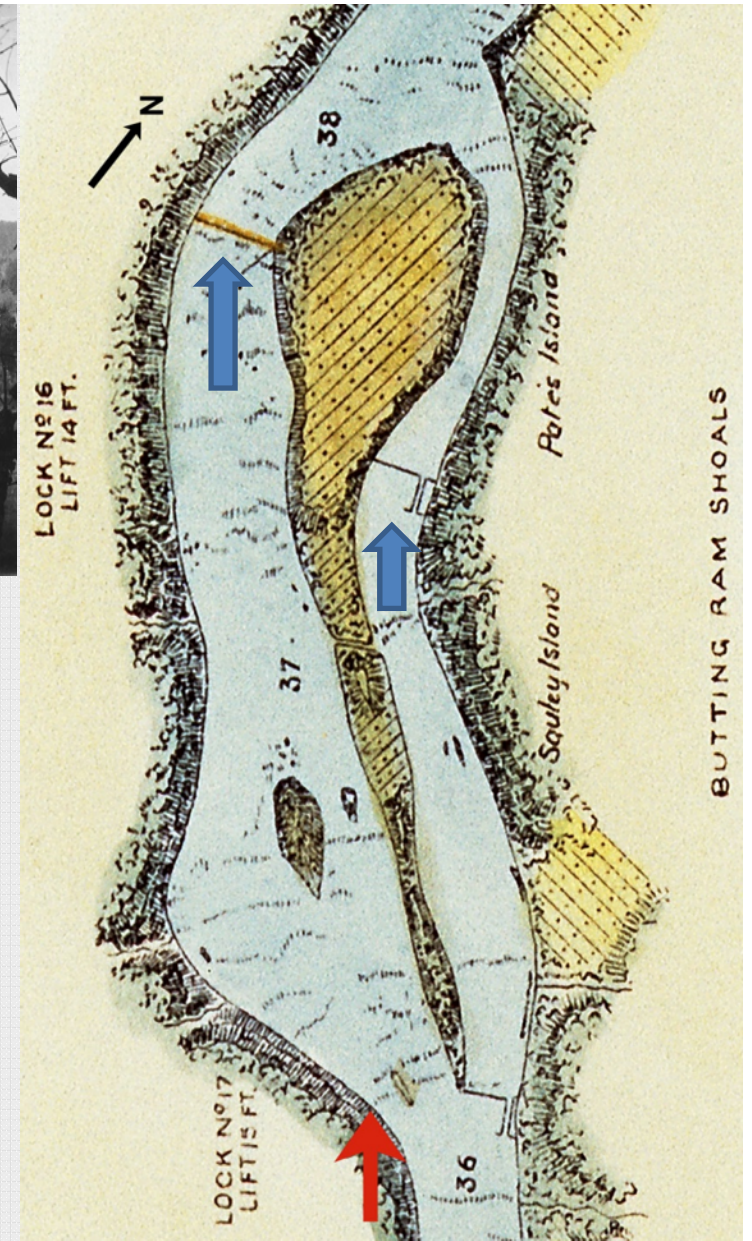


FIG. 4.—PROFILE COOSA-ALABAMA RIVERS—LOCK 5 TO WETUMPKA.



Photo (about 1920) of Coosa River at Butting Ram Shoals, looking upstream from the west bank, prior to impoundment.

USACE 1889 map of Coosa River at Butting Ram Shoals, showing proposed locks and dams (blue arrows).



Coosa River in 1920 before and after completion of Mitchell Dam, Alabama



FERC - NEPA Review resulted in a
“Finding of No Significant Impact.”

June 2012, the USFWS Biological
Opinion found no jeopardy to 9 T&E
listed species or adverse impacts to
12 critical habitats.

June 2013, FERC granted Alabama
Power a new 30-year license to
operate Coosa Hydro Project dams.



United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued January 12, 2018

Decided July 6, 2018

No. 16-1195

AMERICAN RIVERS AND ALABAMA RIVERS ALLIANCE,
PETITIONERS

v.

FEDERAL ENERGY REGULATORY COMMISSION AND UNITED
STATES SECRETARY OF THE INTERIOR,
RESPONDENTS

ALABAMA POWER COMPANY,
INTERVENOR

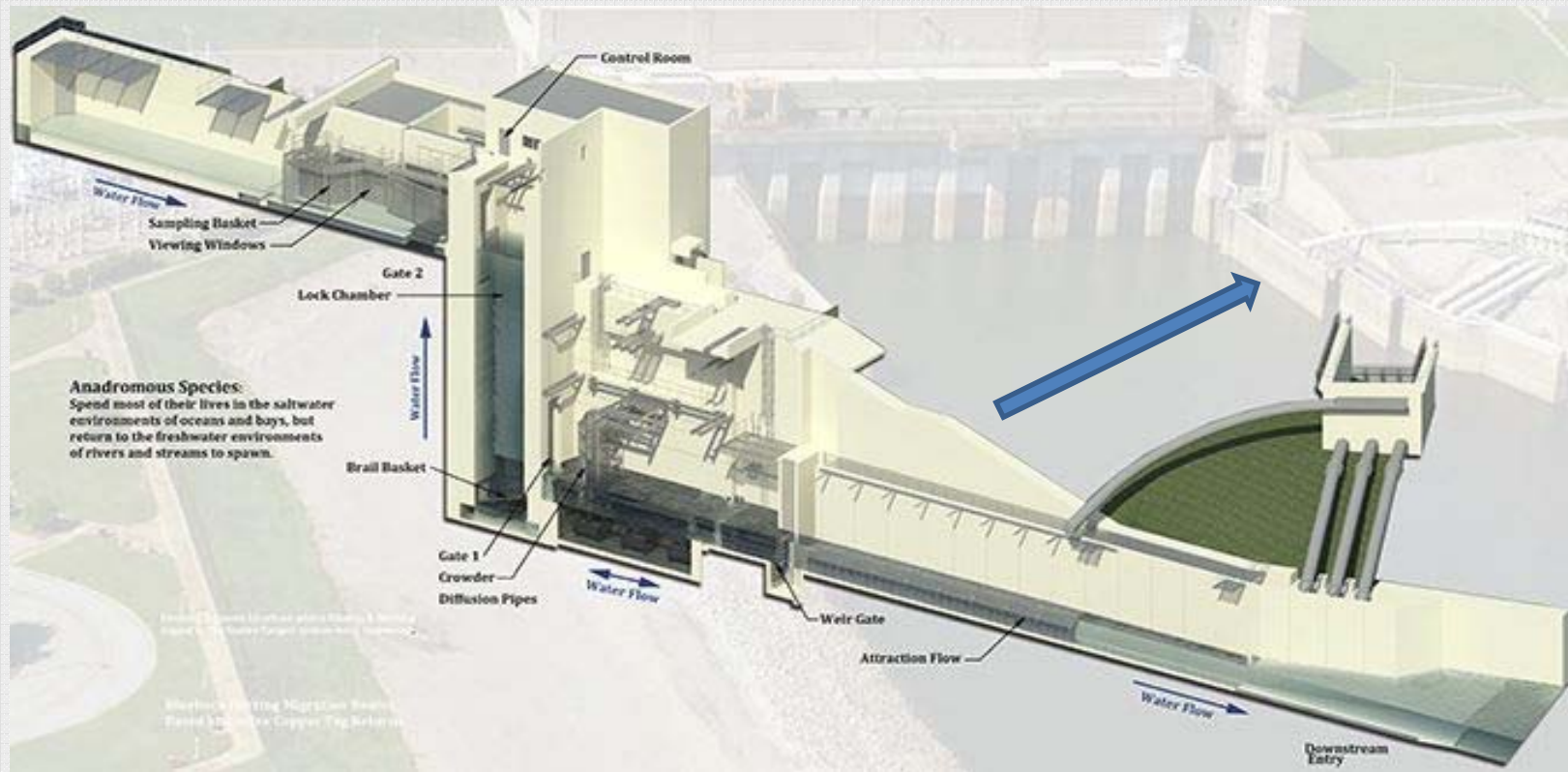
July 2018, US Court of Appeals determined the
“Commission’s issuance of the license was
arbitrary and capricious. Accordingly, we
vacate the licensing decision, and remand for
further proceedings consistent with this
opinion.”

Court Opinion raised a couple of environmental issues that are particularly noteworthy: (1) water quality via dissolved oxygen and (2) fish passage and seasonal flows.

Habitat Criterion	Conditions	License Ordered	Needed
Dissolved oxygen	One example, over 50% of the time in 2014, according to the Court's ruling, during non-generation the oxygen levels dropped below the required 4.0 mg/L level at Logan Martin and Lay Lakes	Constant minimum DO level of 4.0 mg/L at each development "at all times"	Constant minimum DO level of at least 5.0 mg/L at each development "at all times" during generation and non-generation to provide no impairment

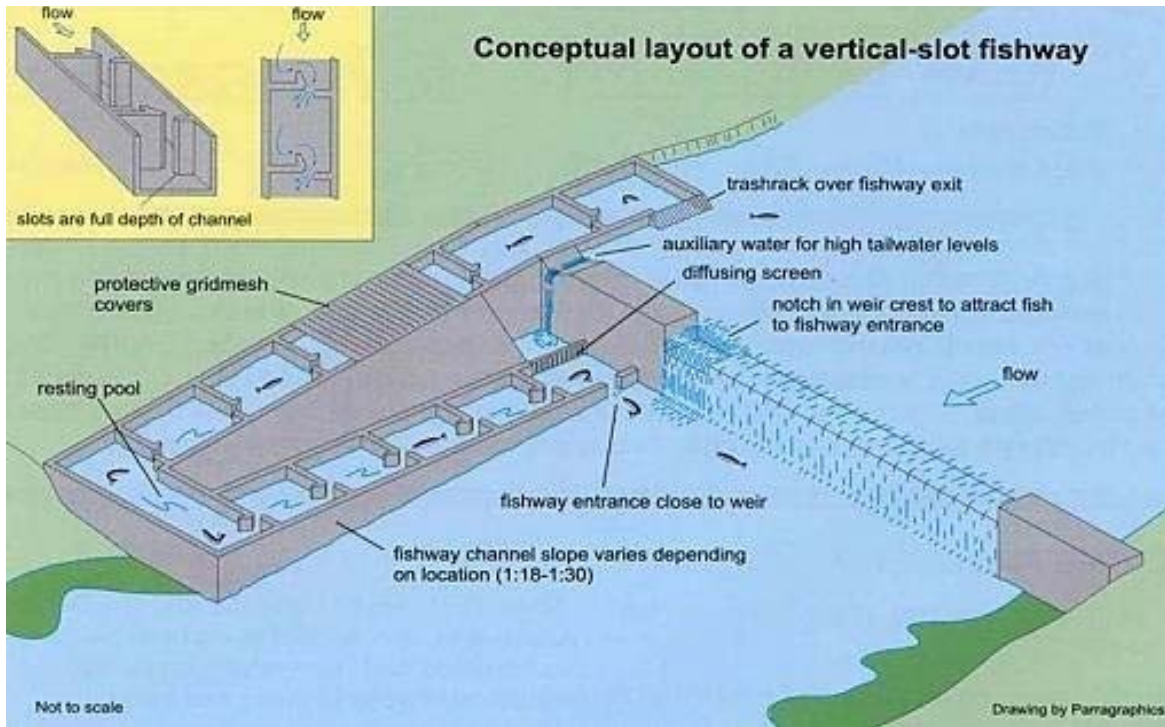
Fish Passage and Seasonal Flows

While the Biological Opinion at least acknowledged dissolved oxygen levels as a potential issue, it largely omitted fish passage and seasonal flows from the effects analysis.



St. Stephens Fish Lift on Santee River, South Carolina

Annually passes an average of 750,000 fish.



Standard design of a fish ladder used on streams in northwestern US

Cape Fear River rocky ramp fish passage

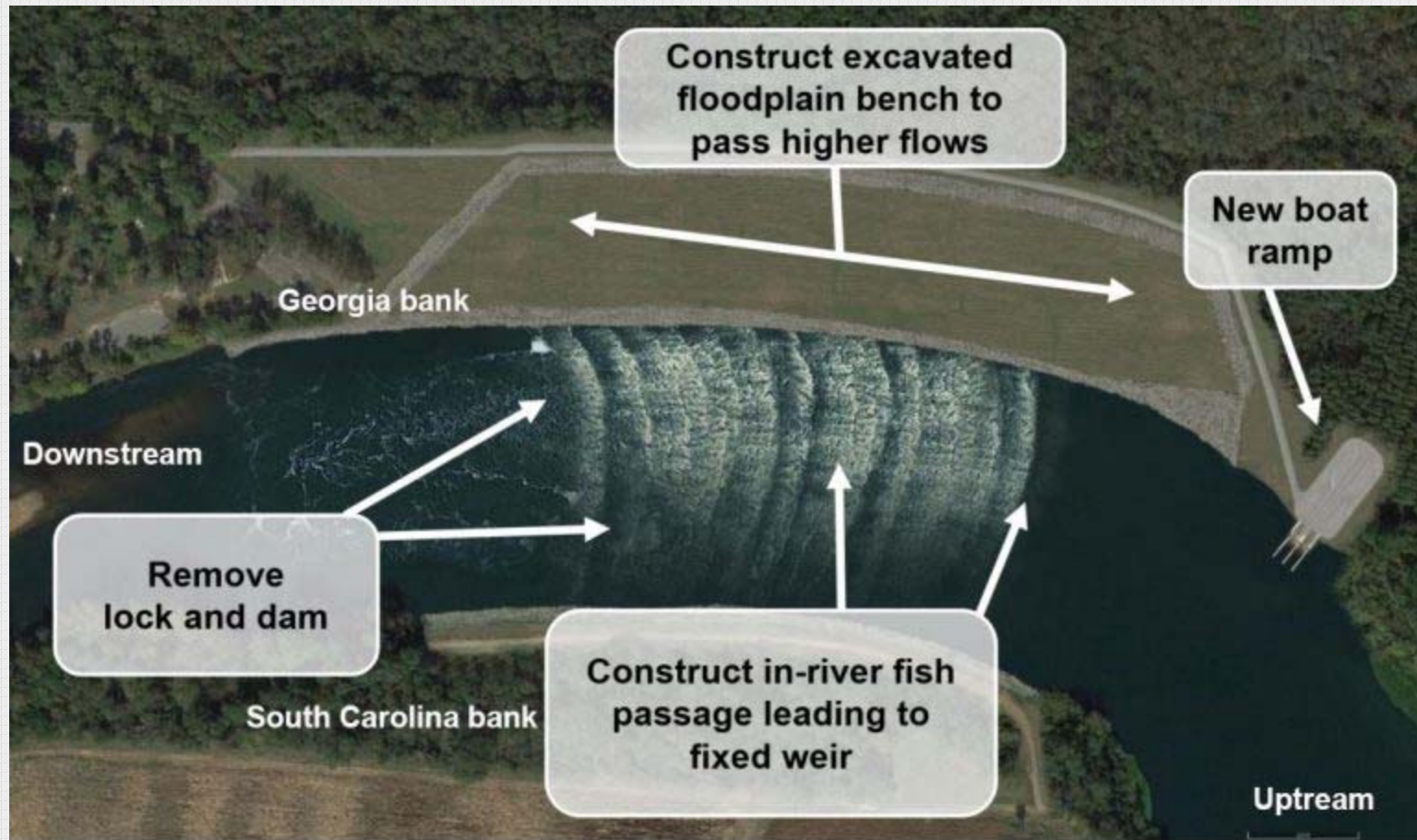


Savannah River - New Savannah Bluff Lock and Dam Below August, Georgia

Corps of Engineers Proposed Rocky Ramp Fish Passage Structure

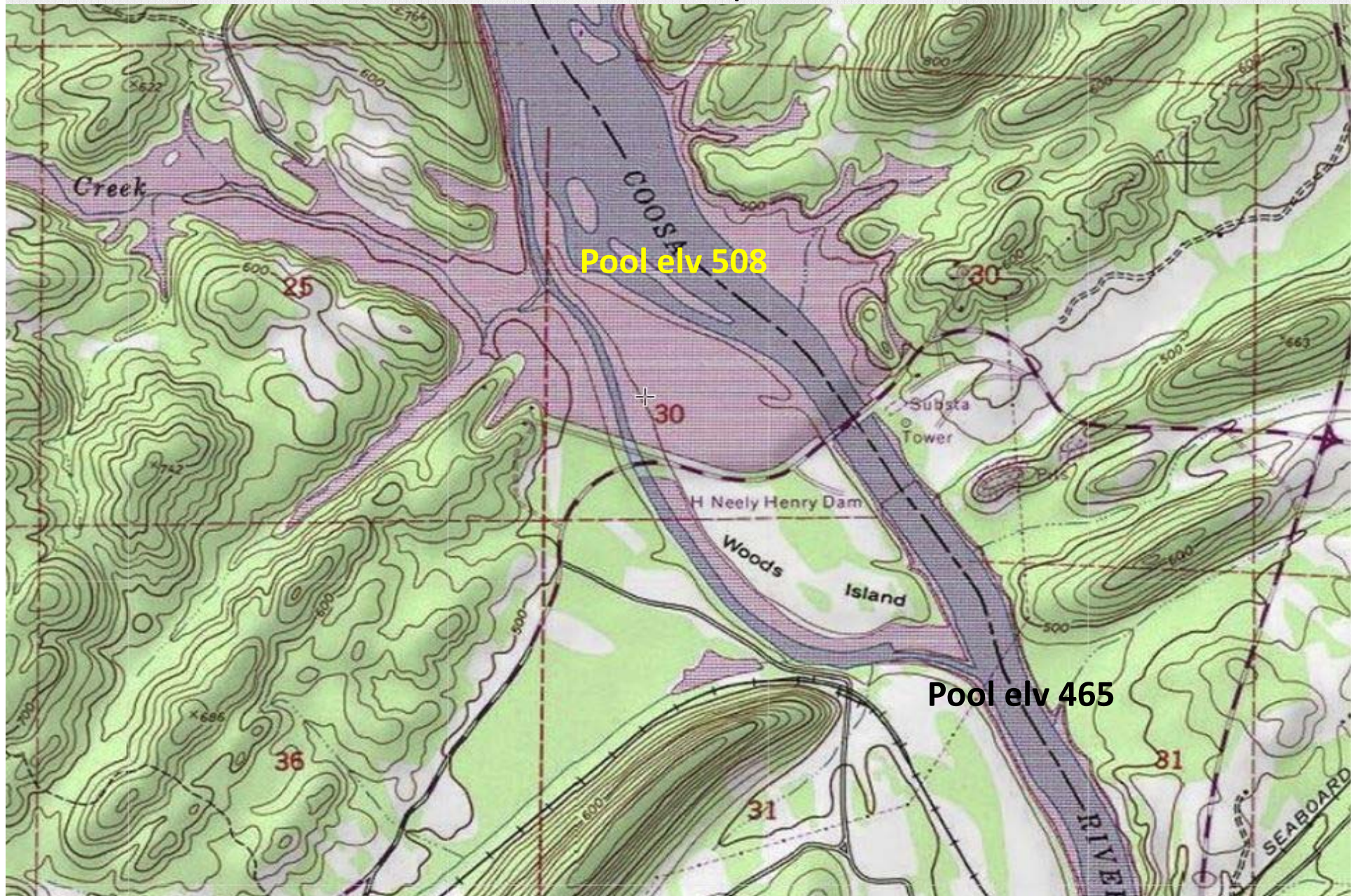


Savannah River - Higher Fixed Weir with Dry Floodplain Bench



November 2018 recommended plan (1 of 7 alternatives) for replacing new Savannah Bluff Lock and Dam. Final decision anticipated August 2019.

Coosa River – Neely Henry Dam (43 ft difference in pool elevation)



I'D REALLY RATHER
REMOVE THESE DAMS,
BUT THIS NATURE-LIKE
BYPASS IS GOOD
FIRST AID.



Suppo deinema 2018/seppanet

Potentially Recoverable Main Channel Coosa River Habitat

Jordan Dam tailwater – up to 15 miles (about 7 is shoals habitat, which ends at Wetumpka Bridge).

Mitchell Dam tailwater – about 2 miles.

Lay Dam tailwater – 3 miles.

Logan Martin Dam tailwater – at least 15 miles, and maybe as many as 20.

Neely Henry Dam tailwater – at least 5 miles, and maybe as many as 15.

Weiss Dam tailwater – about 30 miles, downstream to where the river widens to overbank.

Above Weiss backwaters to Rome, GA – at least 15 miles, and maybe as many as 20.

Sum of potentially restorable Coosa riverine habitat ranges from 85 to 105 miles.

So, what now? What do we do with the Court of Appeals decision?

What we know is that we are in a unique position to redo the license process to improve the aquatic habitat in selected reaches of the Coosa River.

We are getting a once-in-generation (license good for 30 years) opportunity to make things better for the aquatic fauna of this globally unique river system.

Proposed Process Moving Forward

The What



The Who – About 40 individuals

- Academia – UA, UAB, AU, UGA, UF, +others
- Agencies – ALDCNR, GSA, ADEM, GADNR, FERC, USFWS, USACOE
- Companies – APC
- NGOs – AR, ARA, SELC, TN Aquarium, TNC, WWF

The When – 2019 ASAP

Funding for Vision Workshop – About \$50,000

2017 Official opening of Tulotoma Snail Trail, Wetumpka, AL





Coosa River Below Jordan Dam at Moccasin Shoals, Alabama



This decision is a precedent-setting opinion that has the potential to change the environmental requirements for all future FERC hydro power license throughout the United States.