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Myth vs. Reality in the ACF

**Lewis B. Jones
King & Spalding LLP
lbjones@kslaw.com**

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Problem: Low levels at Lake Lanier

- Myth: Metro Atlanta failed to plan for growth, and this is to blame for the current state of Lake Lanier.
- Fact: Metro Atlanta understands that conservation is essential. The District's water supply and conservation plan is by far the best in the State and in the ACF Basin.
- Fact: But no amount of planning and conservation could overcome mismanagement of Lake Lanier.
- Fact: The Interim Operations Plan ("IOP") for the Chattahoochee reservoir system emptied Lake Lanier, not Metro Atlanta.

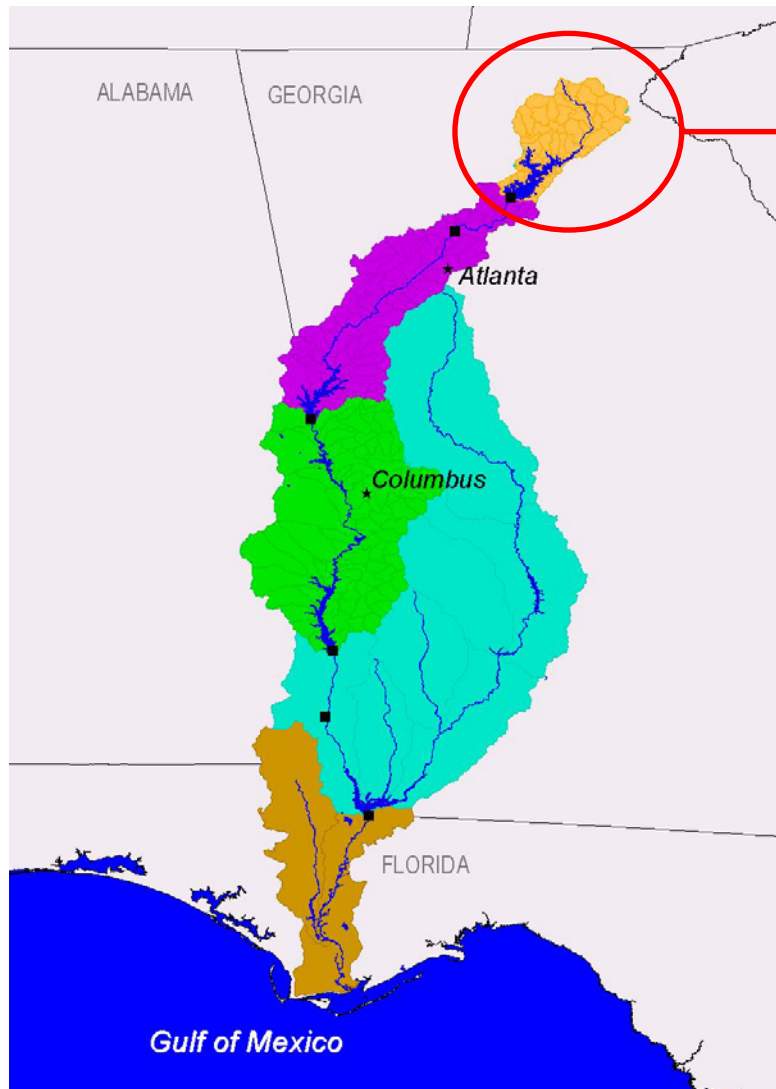
Problem: Low Flows in the Apalachicola River

- Myth: “The explosive growth of Atlanta is draining nearby rivers in the Southeast, threatening ecosystems and livelihoods in a region unused to resource shortages.”

Pacific News Service (Mar. 10, 2002)

- Fact: Metro Atlanta—72% of the population of the ACF Basin—uses just 1% to 2% of the water in the ACF Basin above the Florida line.
- Fact: Low flows downstream are caused by historic drought and other unrelated issues.

The Lake Lanier Watershed Comprises Only 5.6% of the Basin Above the Florida Line

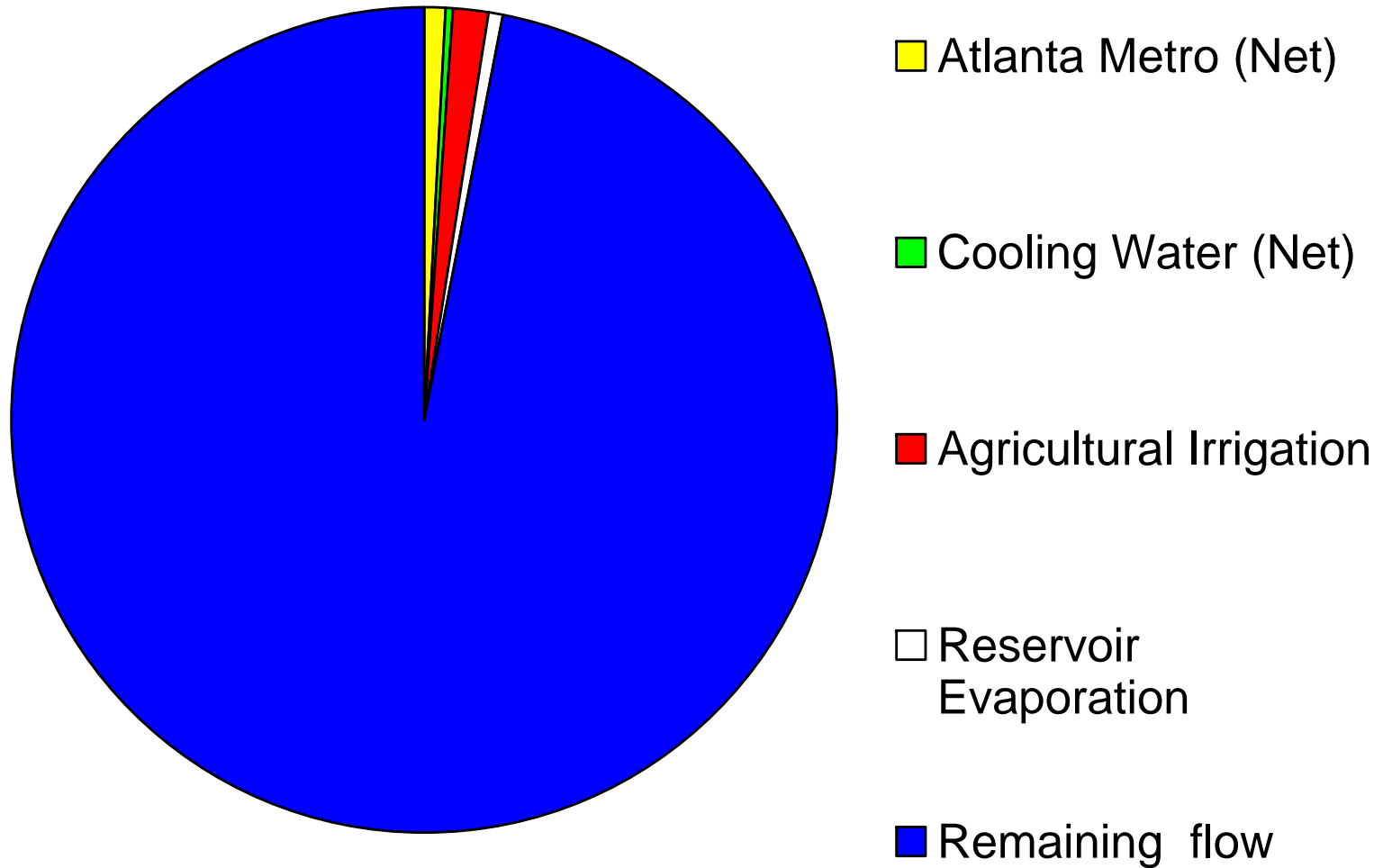


- Lake Lanier controls runoff from just 5.6% of the ACF Basin.
 - Most tributaries enter below Lake Lanier.
 - Most of the water that enters the ACF Basin passes to Florida completely unregulated.
- Net water use is the only thing that matters, and Metro Atlanta returns over half of what it uses.
- Given these facts, it would not be possible for Metro Atlanta to use much more than 1 to 2%—and the numbers bear this out.

Metro Atlanta is Not Even the Biggest User

- Agricultural withdrawals in the ACF far exceed withdrawals for municipal and industrial purposes.
 - According to EPD, these withdrawals reduce *surface water* flows by 415 cfs on average, and nearly **800 cfs** during the dry summer months when river flows are lowest.
 - Compared to 250 cfs for Metro Atlanta.

Metro Atlanta is Not the Cause of Low Flows in the Apalachicola River



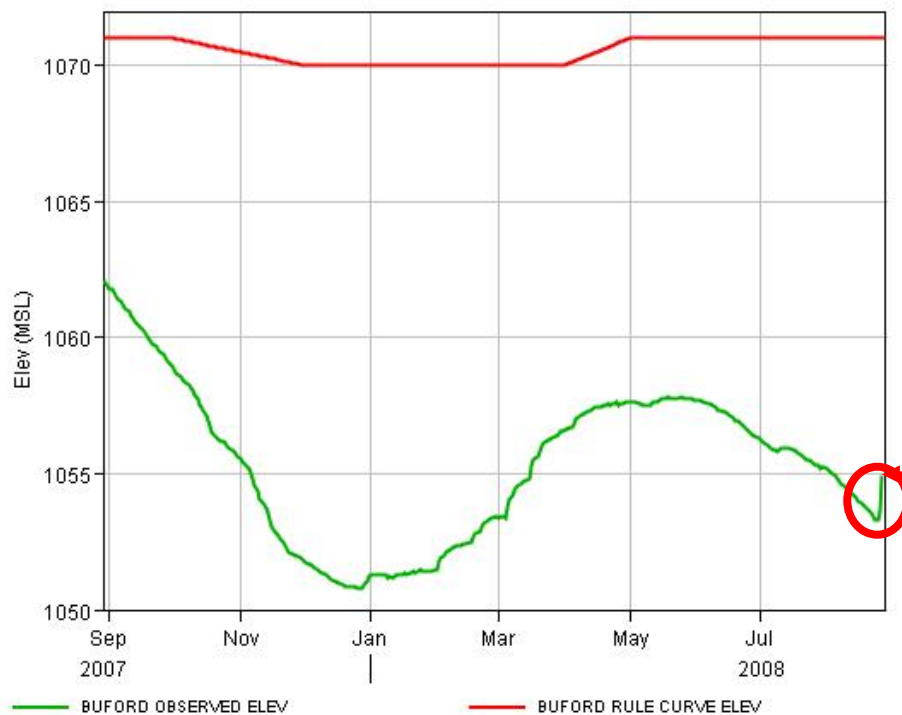
The Interim Operations Plan

- The Corps adopted the IOP in March 2006, without any prior study or analysis, in response to litigation by Florida.
- A recipe for disaster: the IOP places high demands on storage while preventing refill.
 - Reservoirs should refill in the spring of each year when flows are naturally high. The IOP prohibits storage during this period.
 - The IOP also imposes unnaturally high flow requirements—5,000 cfs or greater—irrespective of inflow.

The IOP Drained the Reservoirs in 2007

- From May to November 2007, flows supplied to the Apalachicola River under the IOP were **220% of its natural “unimpaired flow.”**
- From October to November 2007, **releases from Lake Lanier were 7 times greater inflow.**
 - Lake Lanier fell by nearly 7 feet during this period.
 - The water released during this two-month period could have supplied Metro Atlanta’s water needs for well over a year.

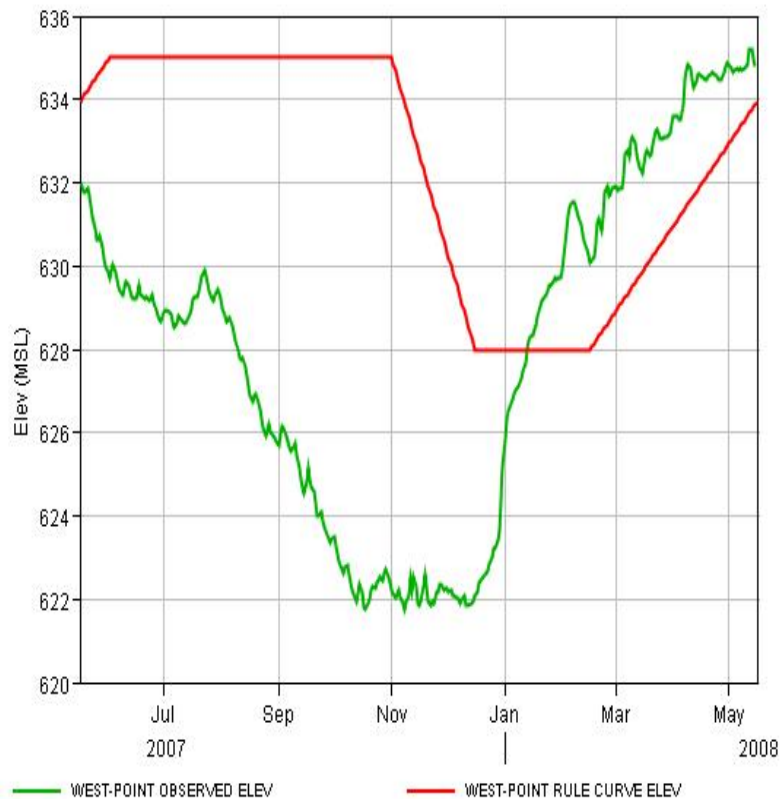
Once Emptied, Lanier May Take Years to Refill



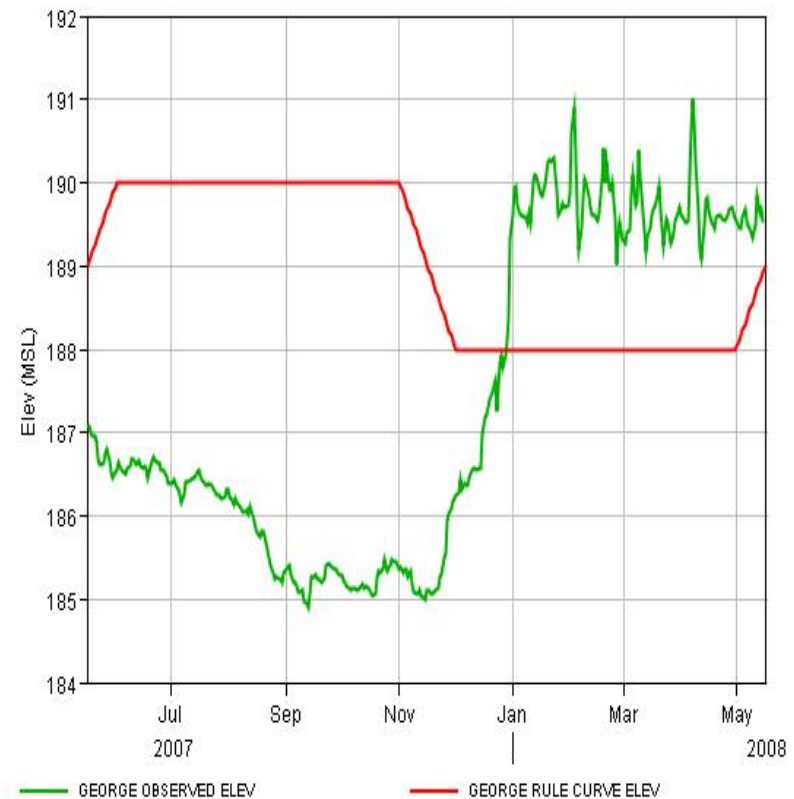
- Lanier remains nearly 16 feet below full pool.
- Hurricane Fay raised the level of Lake Lanier by only about 2 feet.

Unlike Lanier, Lower Reservoirs Refill Almost Immediately

West Point



Walter F. George



The Revised IOP Is Not Much Better

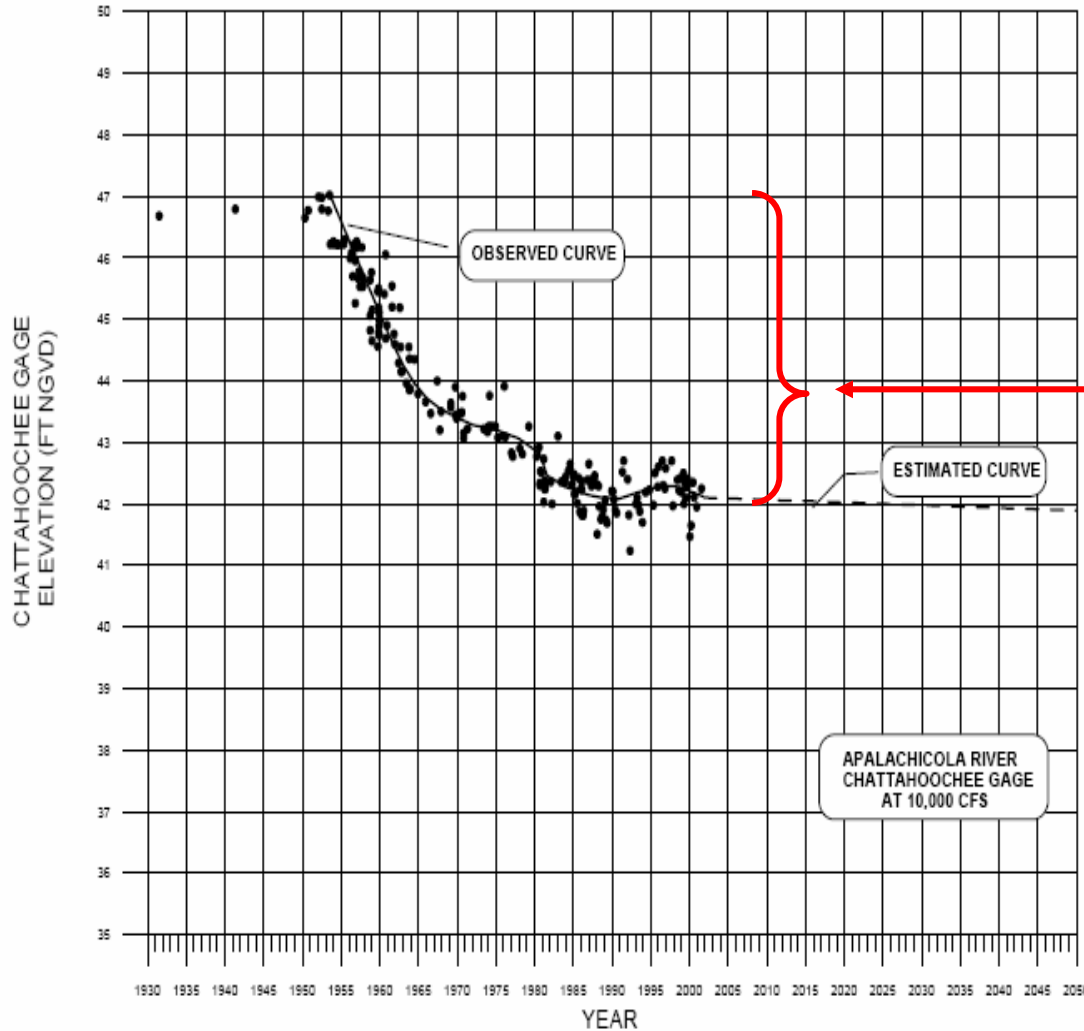
- Adopted in 2008 in recognition that the original IOP was entirely unsustainable.
 - Allows slightly more storage in winter months and provides emergency relief under extreme circumstances.
- Still attempts to use Lake Lanier to drought-proof the Apalachicola River.
- Emergency measures do not take effect until Lake Lanier and the other reservoirs reach critical levels.

Other Problems Need to be Explored

- Channel Degradation
- Chipola Cutoff
- Sikes Cut
- Alternative Operations

Channel Degradation

Dredging and Scour Have Lowered the Channel of the Apalachicola River



- Channel degradation has lowered the level of the Apalachicola River below Woodruff Dam by about **5 feet**.
- Metro Atlanta water use: Less than **2 inches**.

One Result: Reduced Spawning Habitat



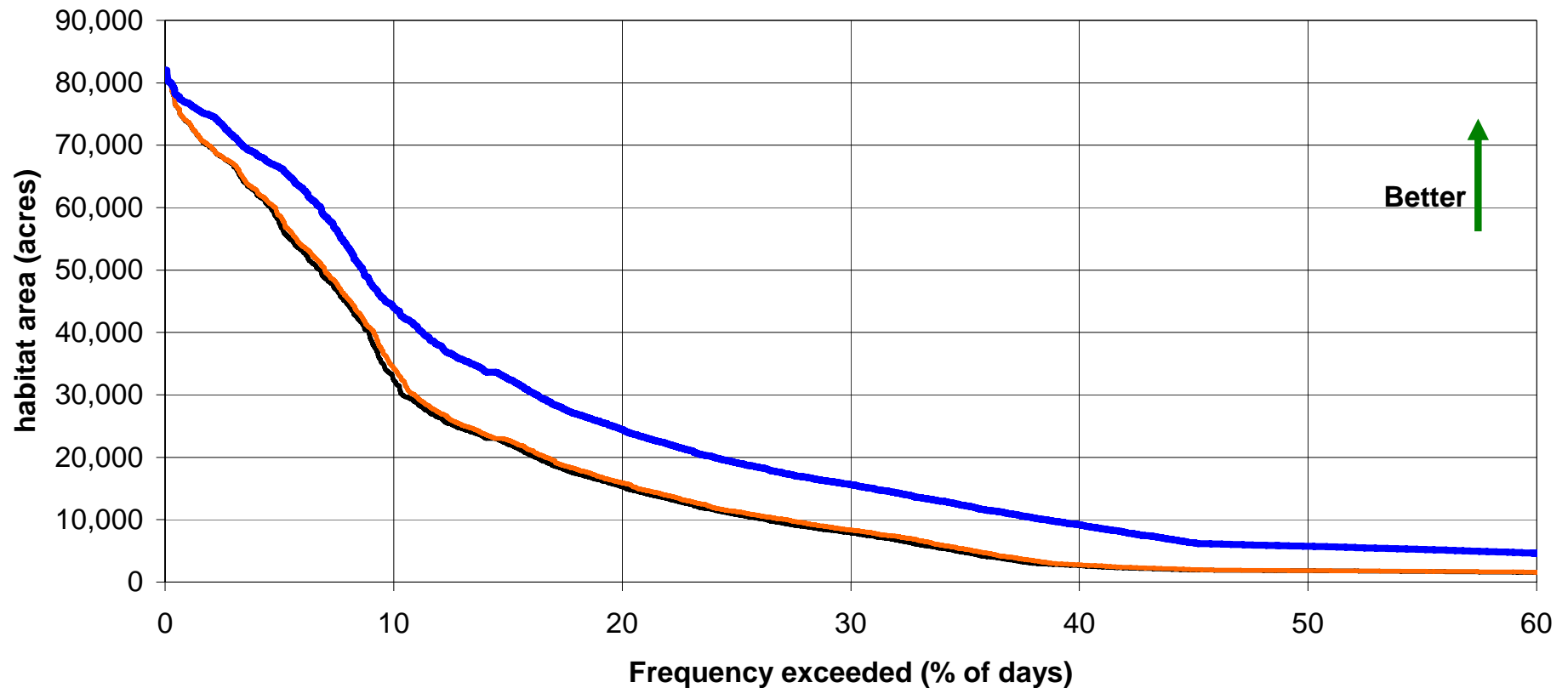
Rock Ledge at RM 105.5—
primary spawning ground
for Gulf Sturgeon in
Apalachicola River.

- Water must be 8.5 to 17.8 feet deep for 2 weeks.
- According to USGS, an additional **10,000 cfs** is required to compensate for the effects of dredging and scour in the channel.
- This is **40 times** the average daily use (250 cfs) of Metro Atlanta.

Another result: Disconnected Floodplains

- “Floodplain connectivity” is cited as a major ecological issue in the Apalachicola River.
 - Many of the mussel species inhabit side channels and floodplains, which may dry out if disconnected from the main channel.
 - “Host fish” for fat threeridge and other mussel species may also use floodplains as spawning grounds.
 - There are also more general ecological concerns about the loss of floodplain forests.

Metro-Area Water Withdrawals Have Been Unfairly Blamed: Channel Degradation is Far More Significant



This chart shows frequency with which floodplains of the Apalachicola River are connected to the main channel, based on data provided by USGS. The figure is based one used by FWS in the Biological Opinion dated Sept. 5, 2006.

— RIOP

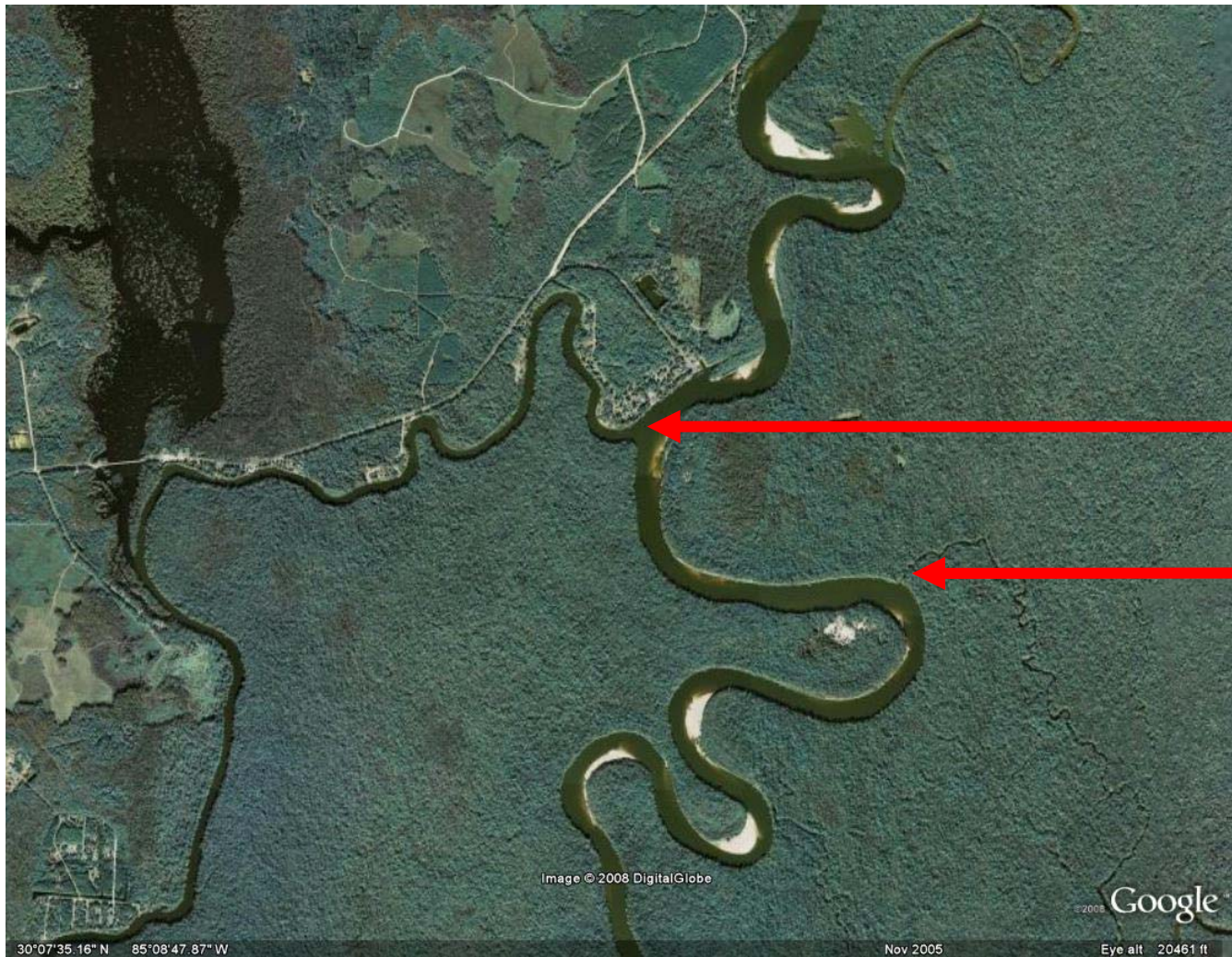
— RIOP if No Metro-Area Withdrawals

— RIOP if No Channel Degradation

Chipola Cutoff

- Chipola Cutoff, a manmade cutoff, is diverting a large part of the flow of the Apalachicola River.
- This was a major factor in the dewatering of Swift Slough—and resulting mussel die-off—in 2006.

Chipola Cutoff



Chipola
Cutoff

Swift
Slough

Image © 2008 DigitalGlobe

Google

30°07'35.16" N 85°08'47.87" W

Nov 2005

Eye alt 20461 ft

Swift Slough



Upstream view of the mouth of Swift Slough with the Apalachicola River in the background. Note the sand deposits in the bed of the slough. Michael D. Harvey, Ph.D., *Cursory Fluvial Geomorphic Evaluation of the Apalachicola River in Support of Jim Woodruff Dam Interim Operations Plan* (Aug. 28, 2007) at 24.

Swift Slough



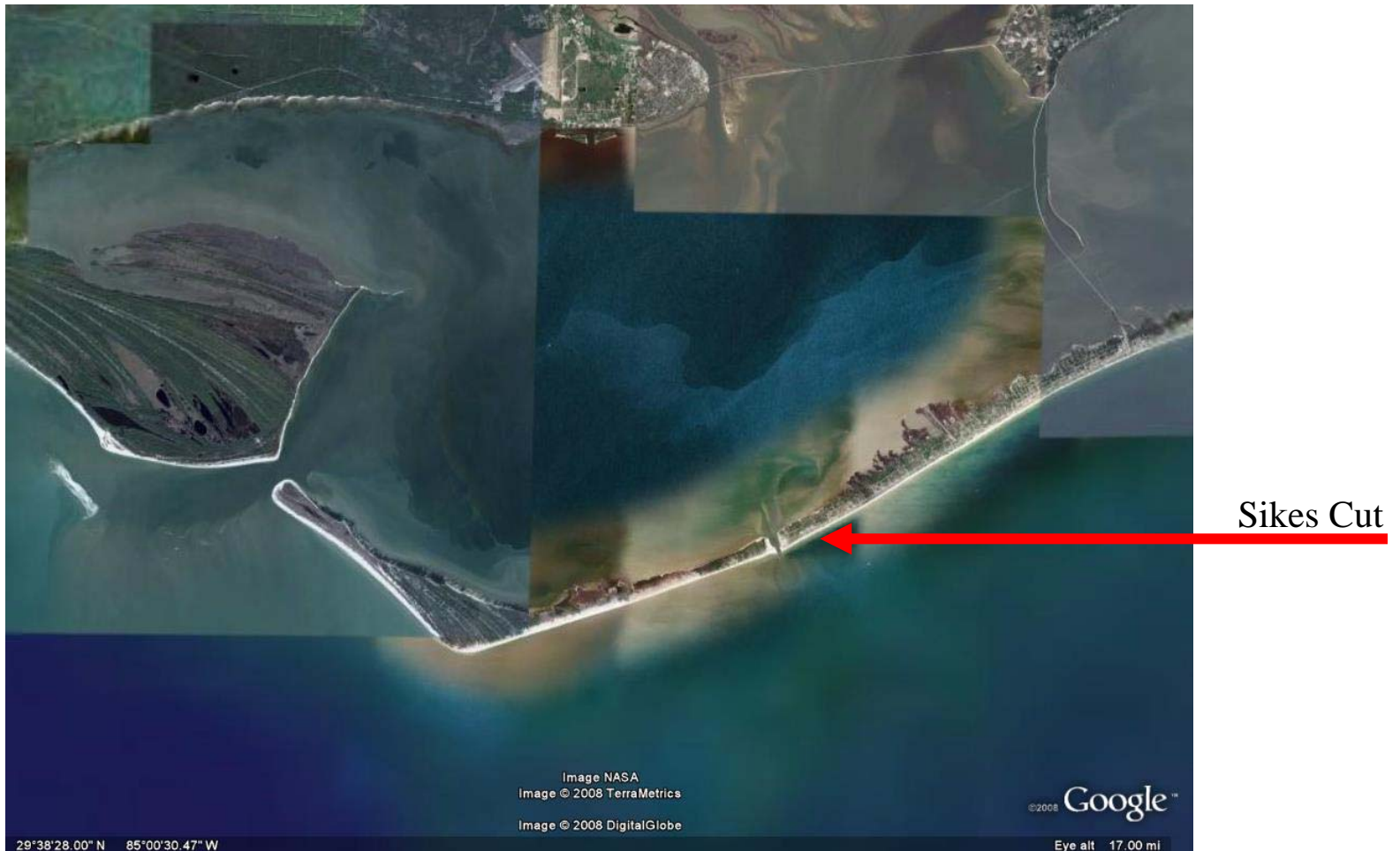
Downstream view of sand waves on the bed of Swift Slough. Michael D. Harvey, Ph.D., *Cursory Fluvial Geomorphic Evaluation of the Apalachicola River in Support of Jim Woodruff Dam Interim Operations Plan* (Aug. 28, 2007) at 25.

Sikes Cut

What's Wrong with the Oyster Fishery?

- They say salinity, due to reduced freshwater input.
 - Metro Atlanta's impact on freshwater is just 1%.
 - No evidence of any linkage between Metro Atlanta water use and oyster harvest
- Other factors:
 - Red-tide
 - Hurricanes
 - Water quality, run-off
 - Developments

Sikes Cut Draws Salt Water into Apalachicola Bay



What Needs to Happen?

- We need a new management plan that protects all stakeholders in the basin *including* the 3.5 million people who rely on Lake Lanier for water supply.
 - Plans are currently underway to update Water Control Plans for the ACF Reservoirs.
 - Alternatives to the Revised IOP must be considered during this process. **Much better alternatives exist.**
- We also need an objective analysis of the issues so that we can explore other solutions to issues that cannot be solved through reservoir operations.

Conclusion

- Separate myth from reality.
- Metro Atlanta uses just 1 to 2% of the water in the ACF Basin above the Florida line.
- This use is reasonable by any measure and is **NOT** the cause of low flows in the Apalachicola River.
- Metro Atlanta is committed to conservation and has already adopted the most aggressive conservation plan in the State and in the ACF Basin.

Questions?

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