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Outline

- Performance measures and their roles i formulating operation alternatives – de alternatives to improve direct performa measures
- Georgia's effort in improving performar and formulating new performance mea for mussel habitat and bay salinity
- Solid results from Georgia effort
- How did we achieve these results?

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Considerations in Formulatin Operation Alternatives

- Water Supply
- Power Generation
- Recreation
- Navigation
- Flood Control
- Water Quality
- Endangered Species
- Other Environmental Needs

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Performance Measures for Endar Species

- Source: Biological Opinion
- Gulf Sturgeon spawning habitat availab
  - Simple frequency of spawning habitat ava
  - Frequency of continuous (30 consecutive availability
- Floodplain connectivity
  - Frequency of growing season (April – Octo
  - Annual frequency of 30-day continuous flo inundation

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Performance Measures for Endar Species

- Source: Biological Opinion
- Surrogates to mussel habitat availabilit uses number of days or frequency of flo the 5,000 cfs to 10,000 cfs range
- Surrogate to salinity in the Apalachicola FWS uses days with flow of 16,000 cfs o

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Direct Performance Measures Endangered Species

- Source: GA EPD/HydroLogics
- Modeled mussel habitat availability
- Apalachicola Bay sturgeon habitat base modeled salinity

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- Design release rules to target the highe amount of sustainable spawning habita the most economic use of storage
- Design rules to target the best availabil sustainable flood plain connectivity

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- Link the amount of preferred mussel ha
  with stage and flow by using the Corps'
  bathymetric data of the Apalachicola Ri
- Design direct performance measure on
  habitat availability
  - Suggest that this replaces the surrogates u
    flow between 5000 cfs and 10000 cfs
- Design release rules to maximize the ar
  of mussel habitat

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- Apply Apalachicola Bay salinity model t
  bay salinity under various operation sce
  and show the differences
- Design direct performance measure on
  salinity
  - Suggest that this replaces the surrogate of
    flow <= 16,000 cfs

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Results

- Sturgeon spawning habitat availability
- Floodplain connectivity
- Mussel habitat availability
- Bay salinity
- Reservoir storage
- Hydropower
- Recreation impacts

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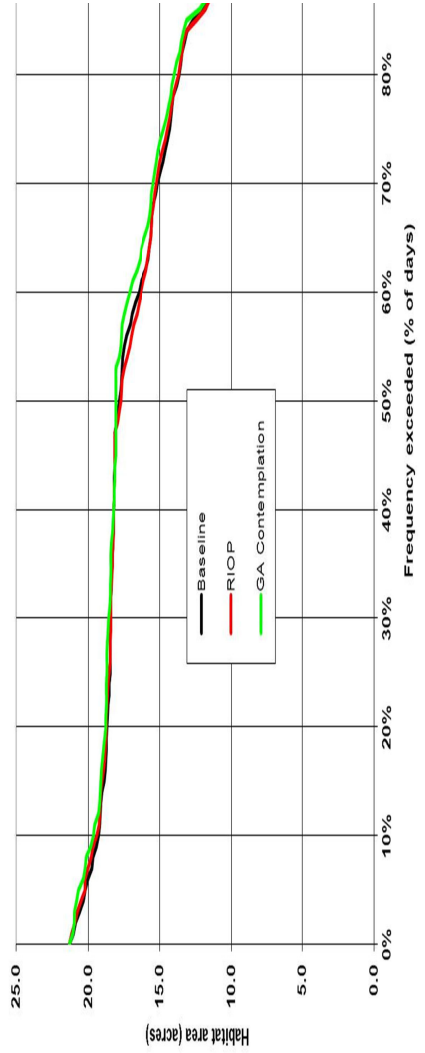
Frequency of Sturgeon Spawn Habitat Availability



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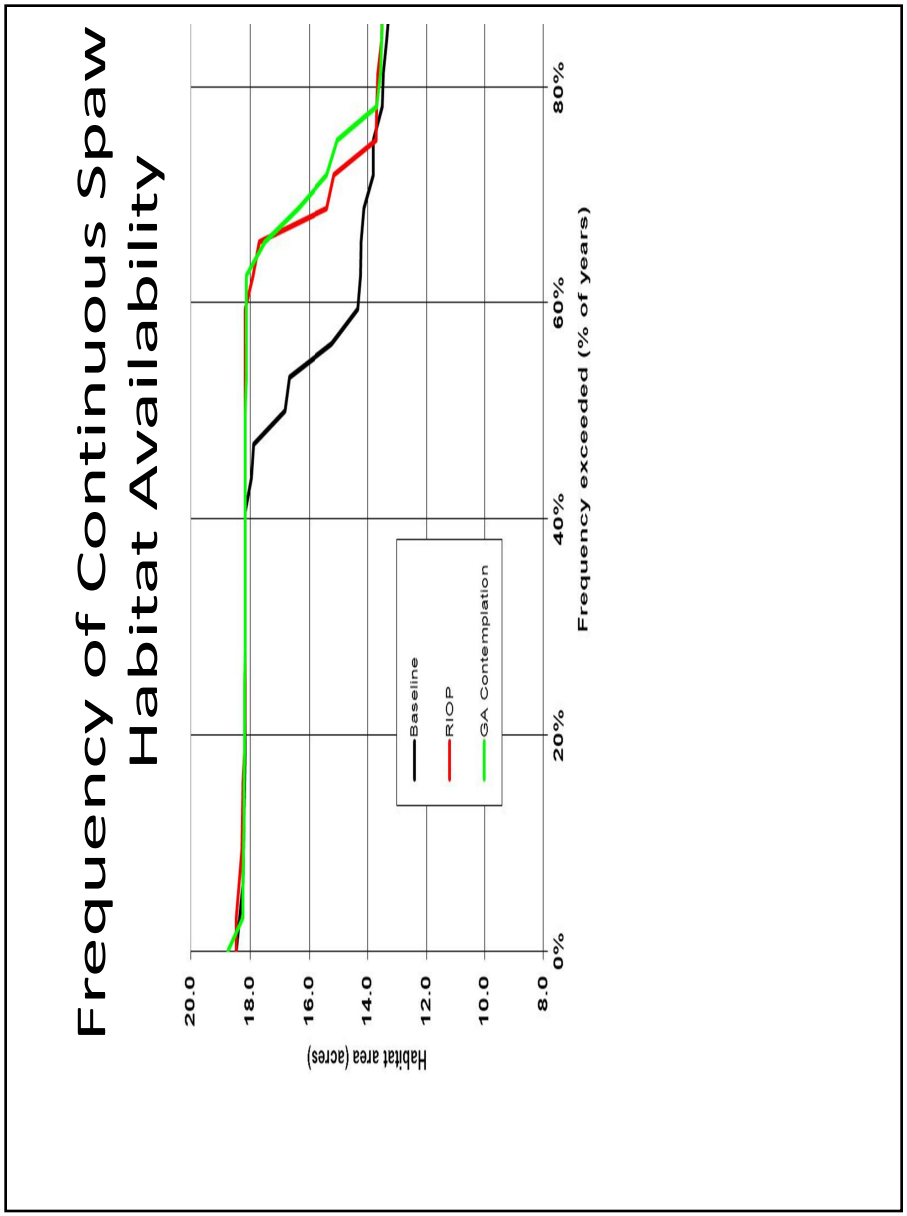

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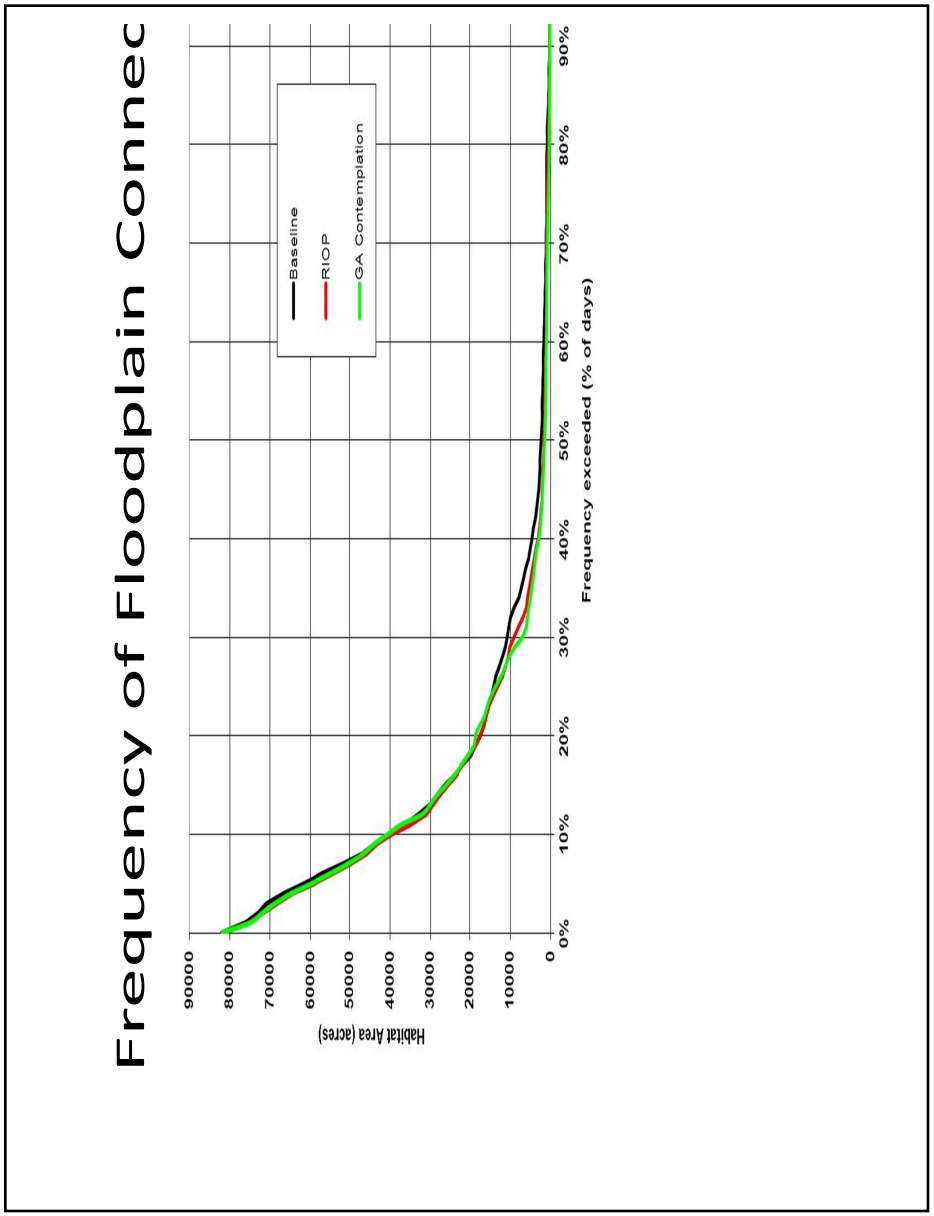

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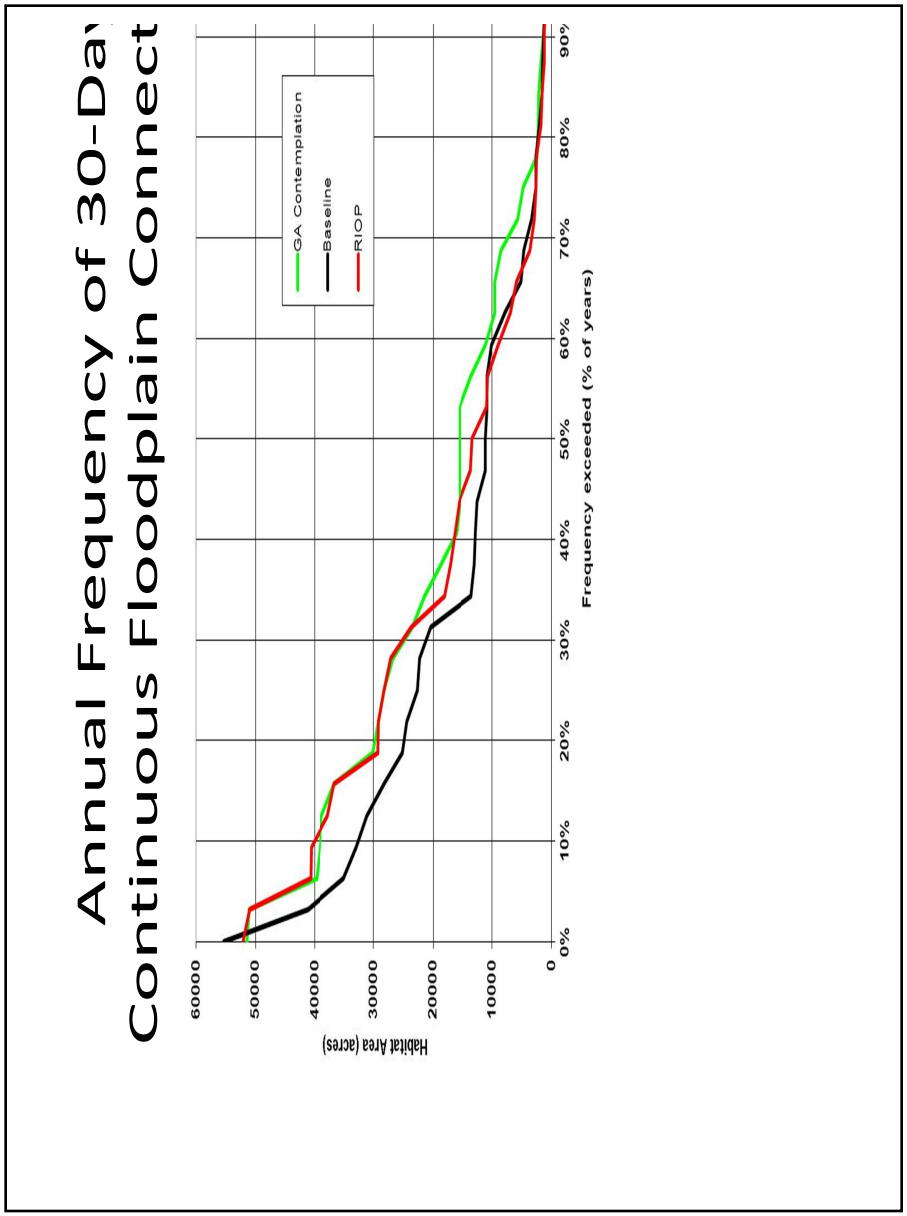

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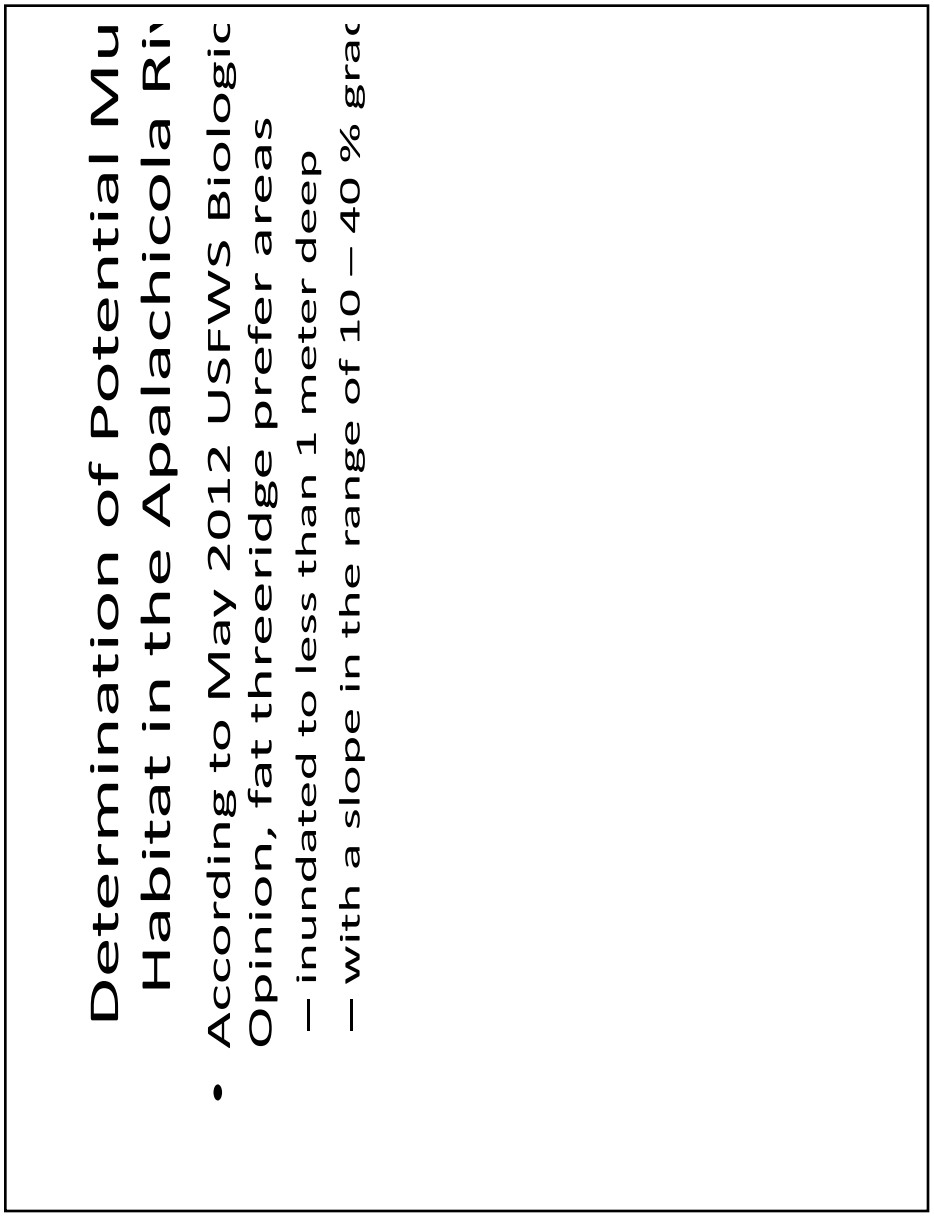

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Determination of Potential Mu
Habitat in the Apalachicola Ri

- Data sources:
  - Army Corps of Engineers Apalachicola River bath
    data acquired during high flows (28,900 cfs ~ 44,(
    RMs 40-50) in 2009-2010
  - USFWS delineated mussel habitat GIS coverage
- Approach:
  - Find areas in the main channel with slopes in the
    range of 10 to 40 % gradient
  - Find areas of less than 3-feet of inundation unde
    stage height
  - Find the common areas of the above as potential
  - Change stage height (i.e. flow level) to find multi
    linking the area of potential habitat to various sta
    values

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GIS Analysis of Corps Bathymetri

If inundation is within acceptable range

And

If slope is within acceptable range

Then classify the cell as preferred mussel habitat

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Rigorous Analytical Approa

- Examined several ways of using the dat
- Chose the most rigorous analysis
- Results presented for data in which sho
  is included in bathymetry data at flow c
  10,000 cfs
- Results are confirmed using all data

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Stretches c
River wher
Shoreline i
in the Bath
Data when
10000 cfs

Green: area w/over 1C
Gray: bathymetry cove
Red: USFWS supplied

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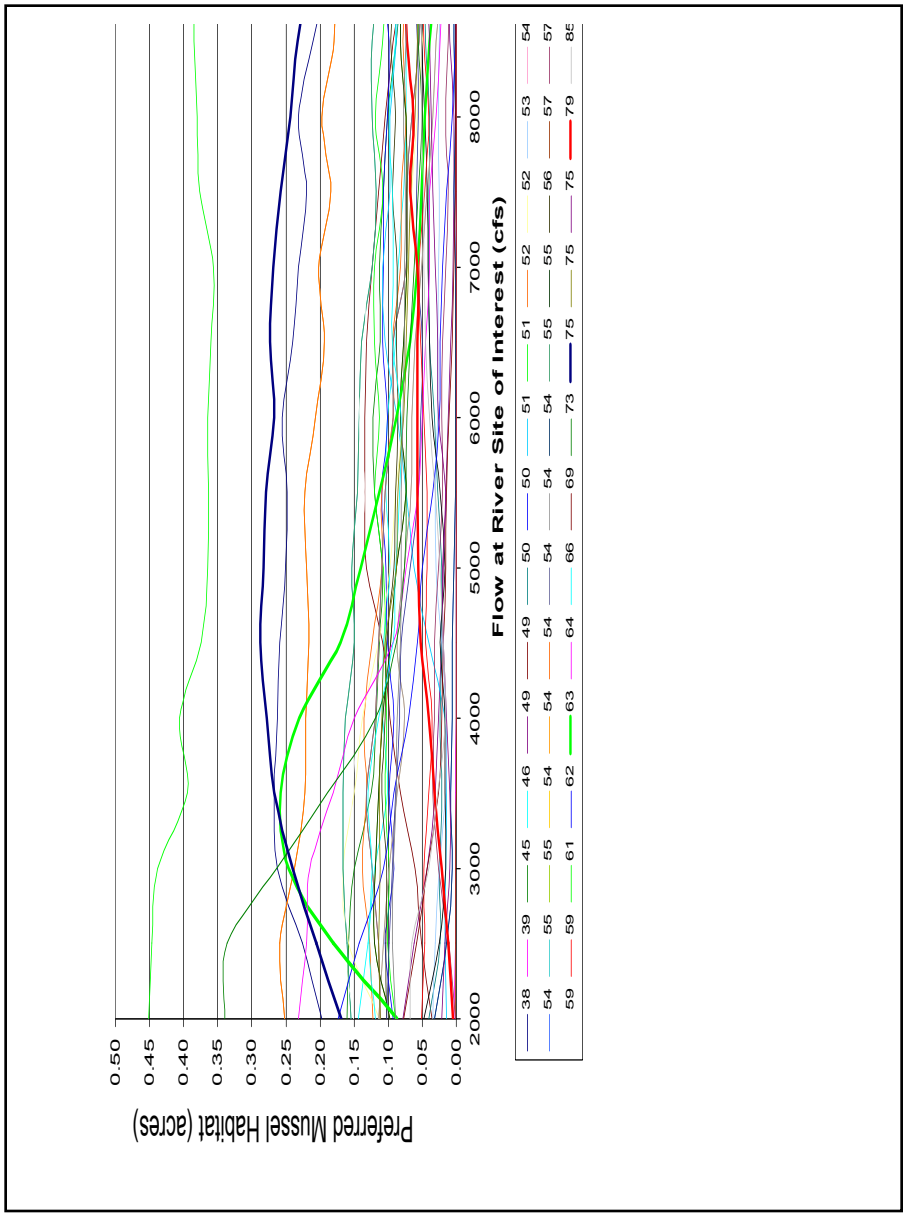

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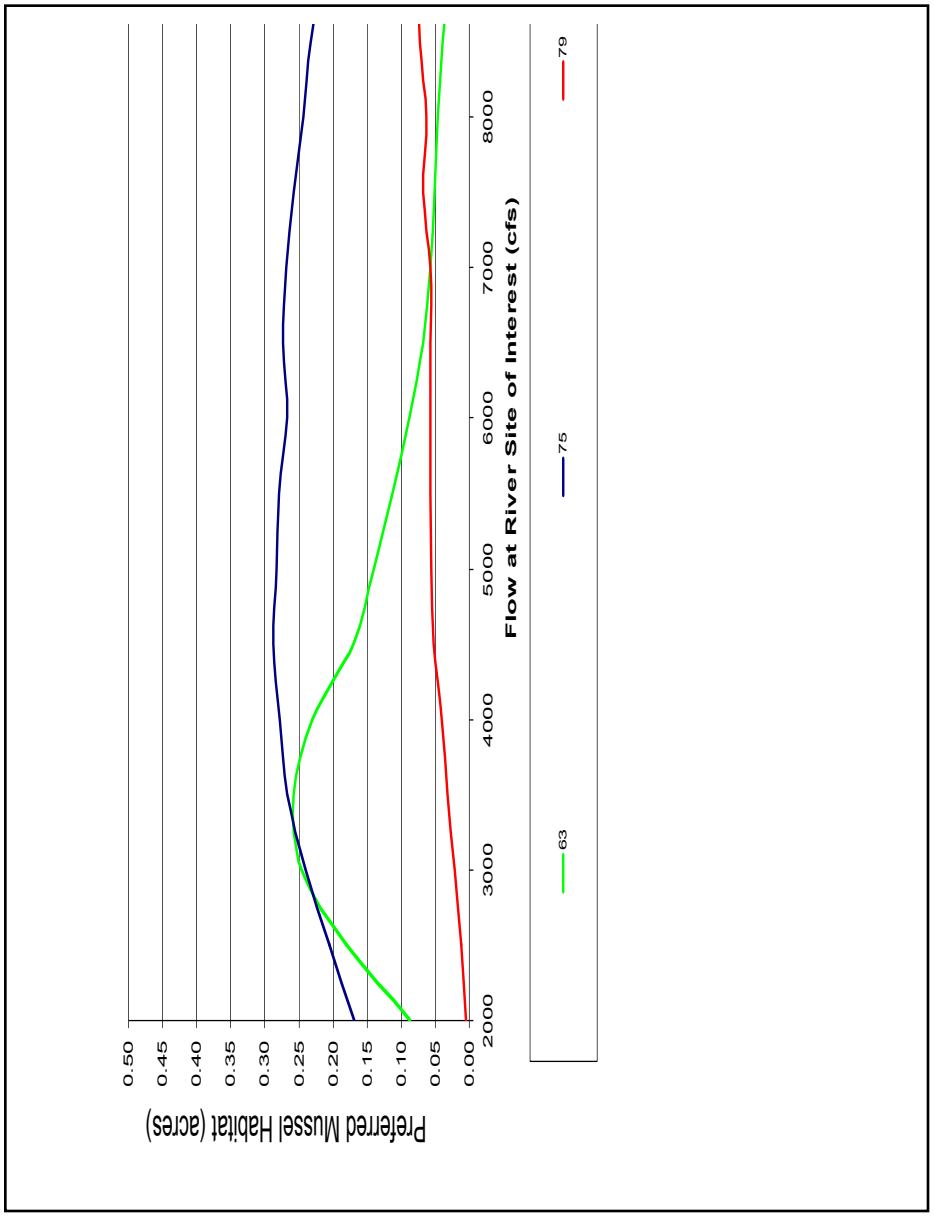

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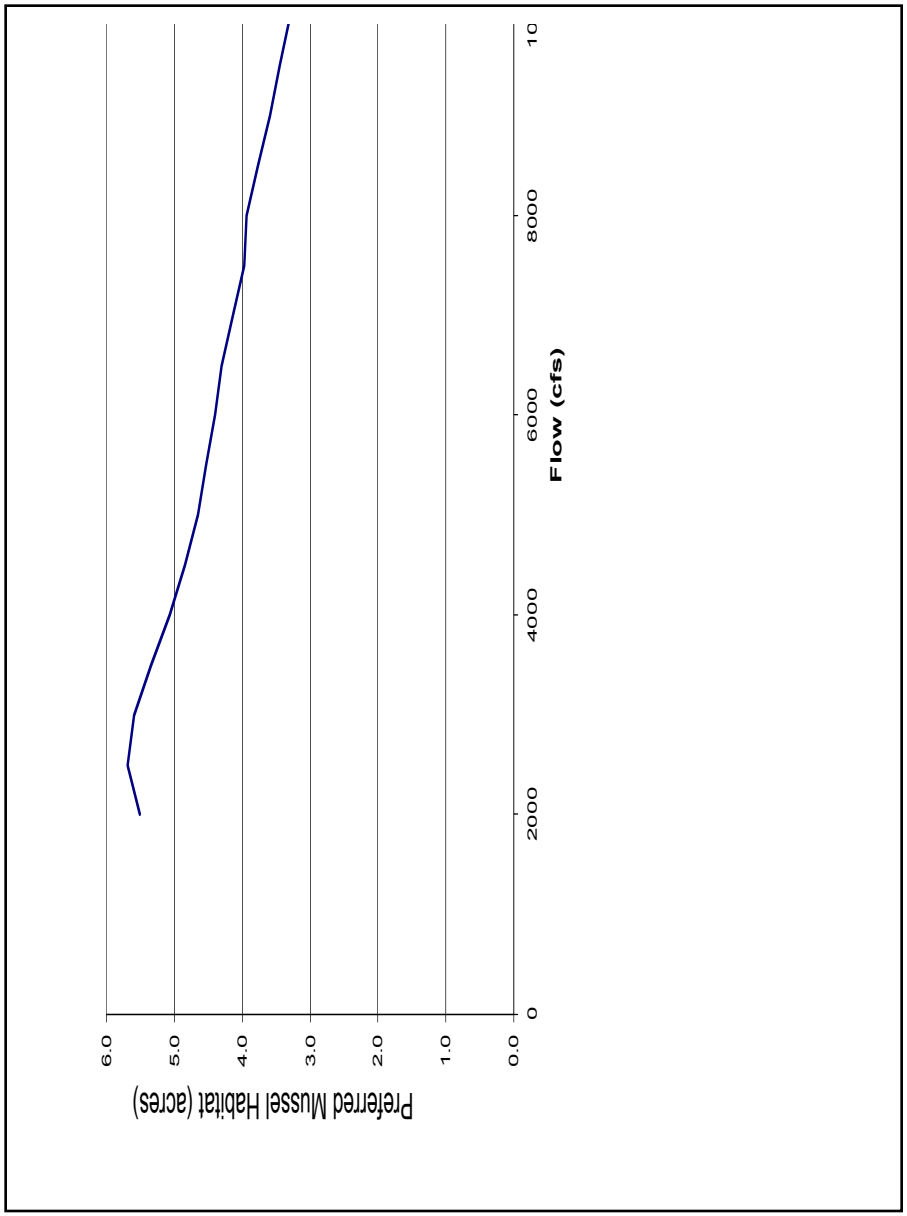

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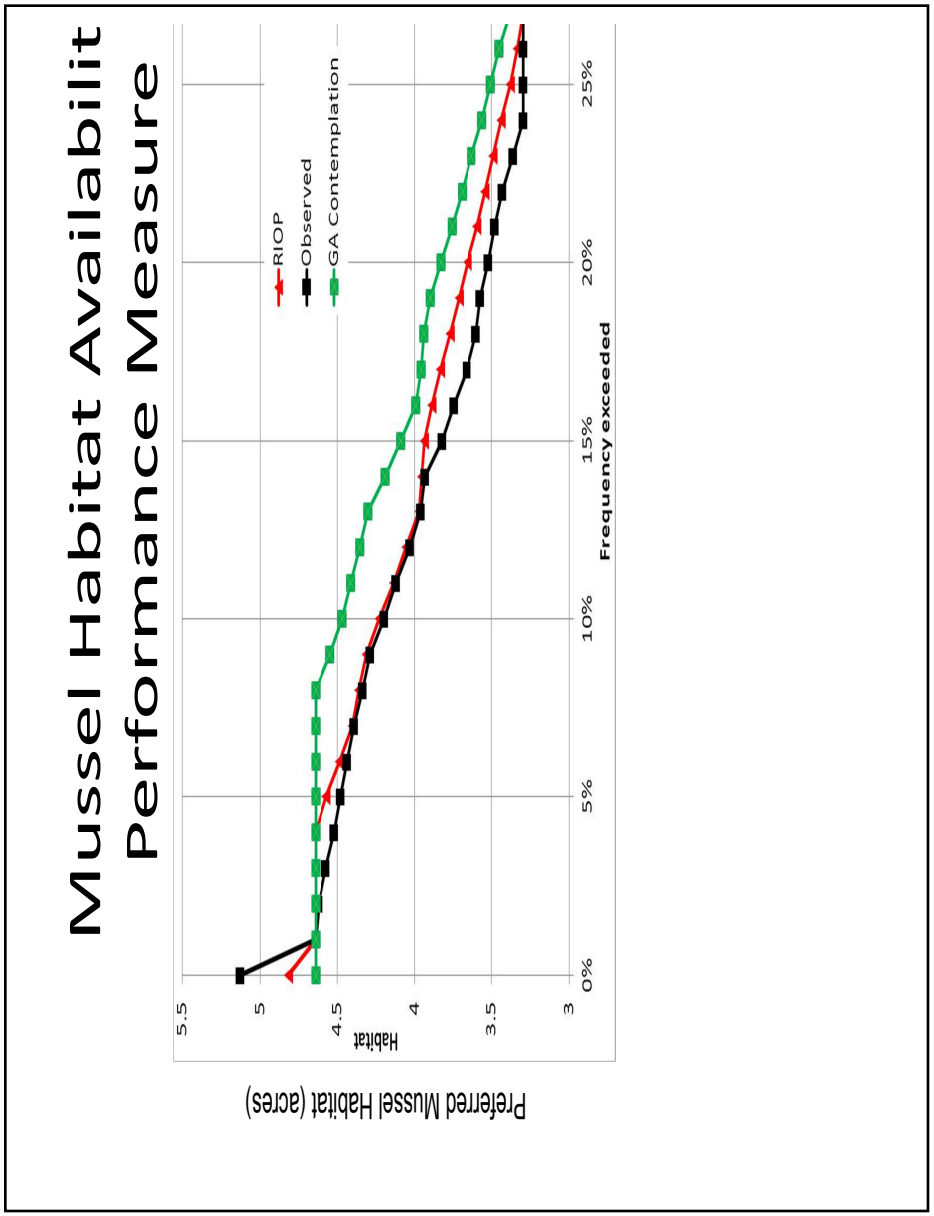

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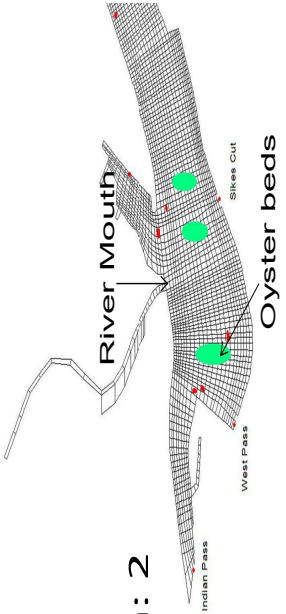
3D Hydrodynamic Salinity M

- Created by Billy Johnson, retired from USACE
- Solves Governing Equations for 3D Velocity a Salinity Fields and 2D Water Surface Field
- Bathymetry from 1986 US Army Corps Survey
- Vertical resolution: 2 ft
- 120 sec time step



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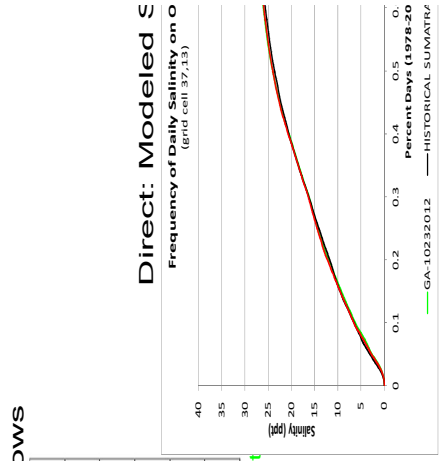
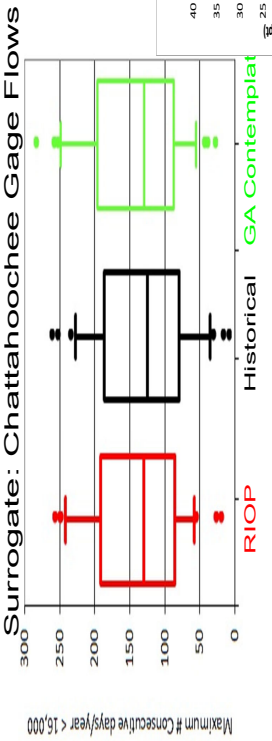
Apalachicola Bay Salinity Performance Measure





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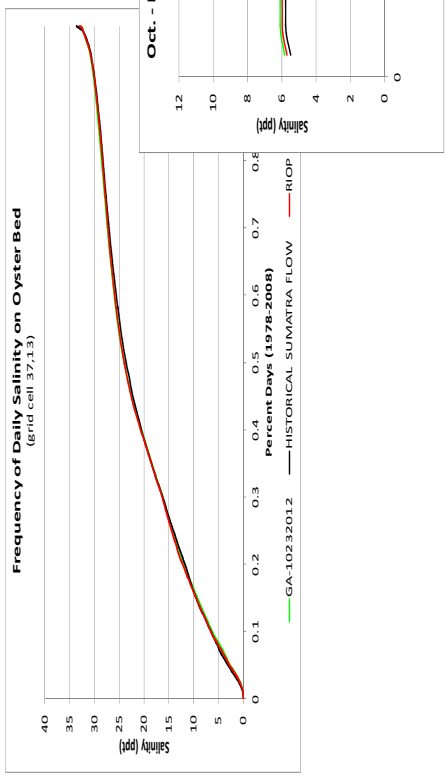
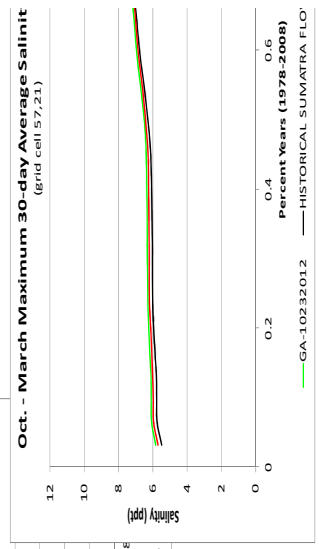
Potential Salinity Performar Measures





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Additional Environmental Ber

- Provide flow variability
- Lessen Drought Contingency Operation impacts

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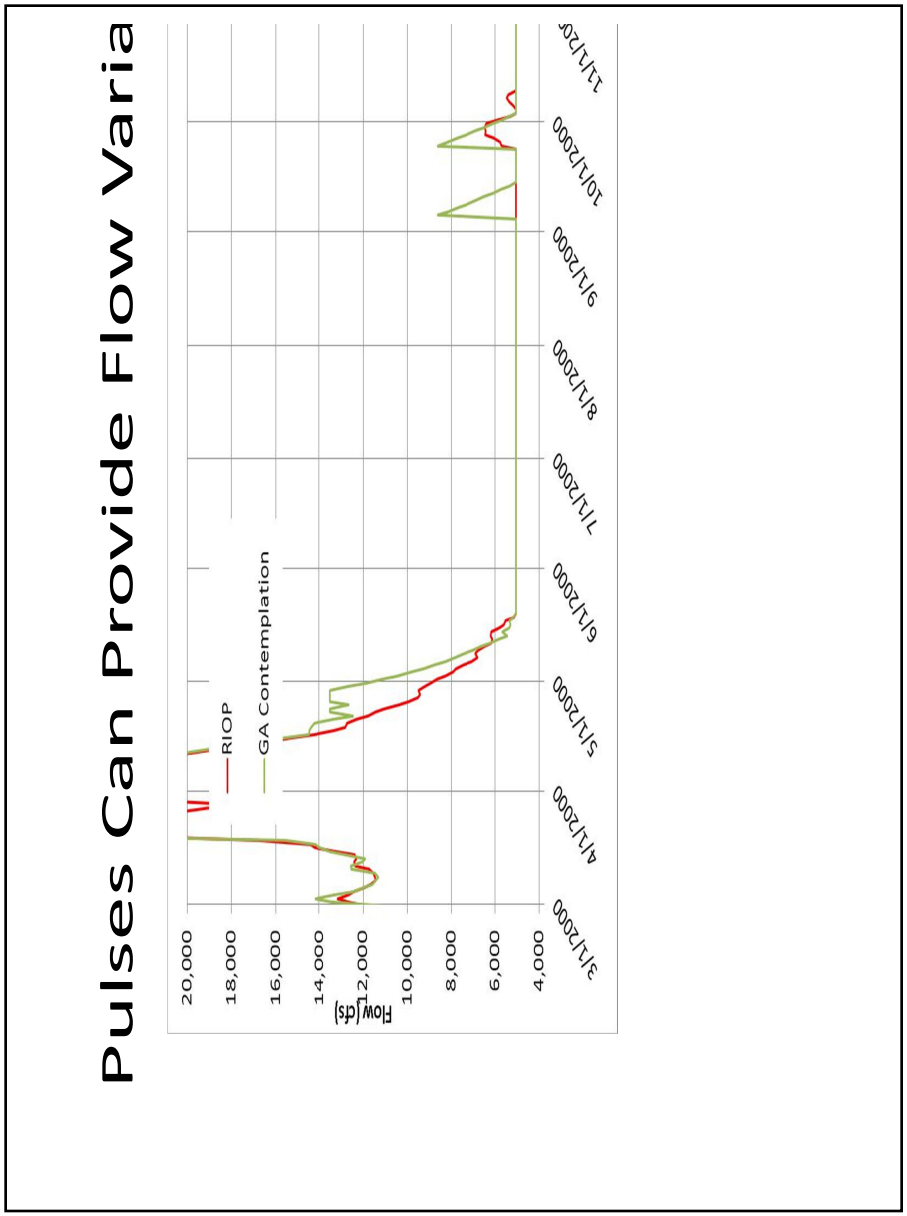

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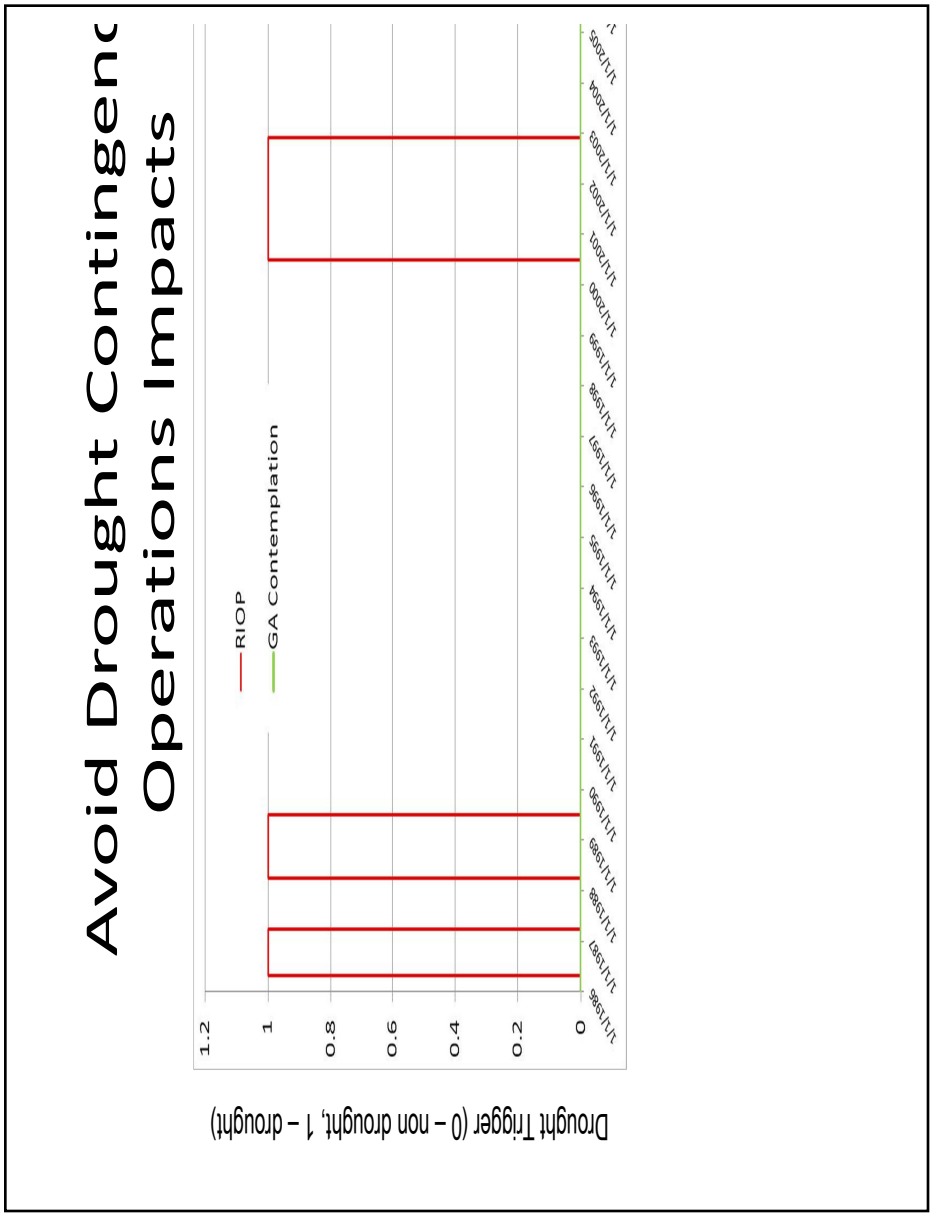

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Timing of Flows

- Reservoirs shift the timing of flow
- Reservoirs do NOT create additional wa

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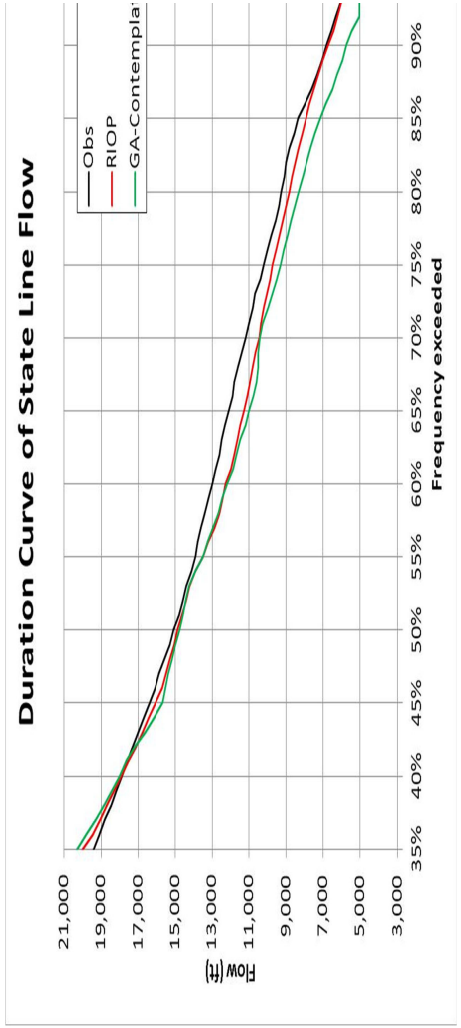
Benefits Achieved Despit
Lowering Flow Duration Cu



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Flows Shift to Potentially M
Ecologically Beneficial Perio

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Performance Measures fo
Authorized Purposes

- Power Generation
- Water Supply
- Recreation
- Navigation

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Hydropower Impacts

- The current version of the proposed rul not provide for single purpose hydropo releases
- Even so, impacts on both generation ar revenue are very small
- HydroLogics experiments lead us to bel that almost all of the minor revenue an generation gap can be closed with mini impact on other performance measure

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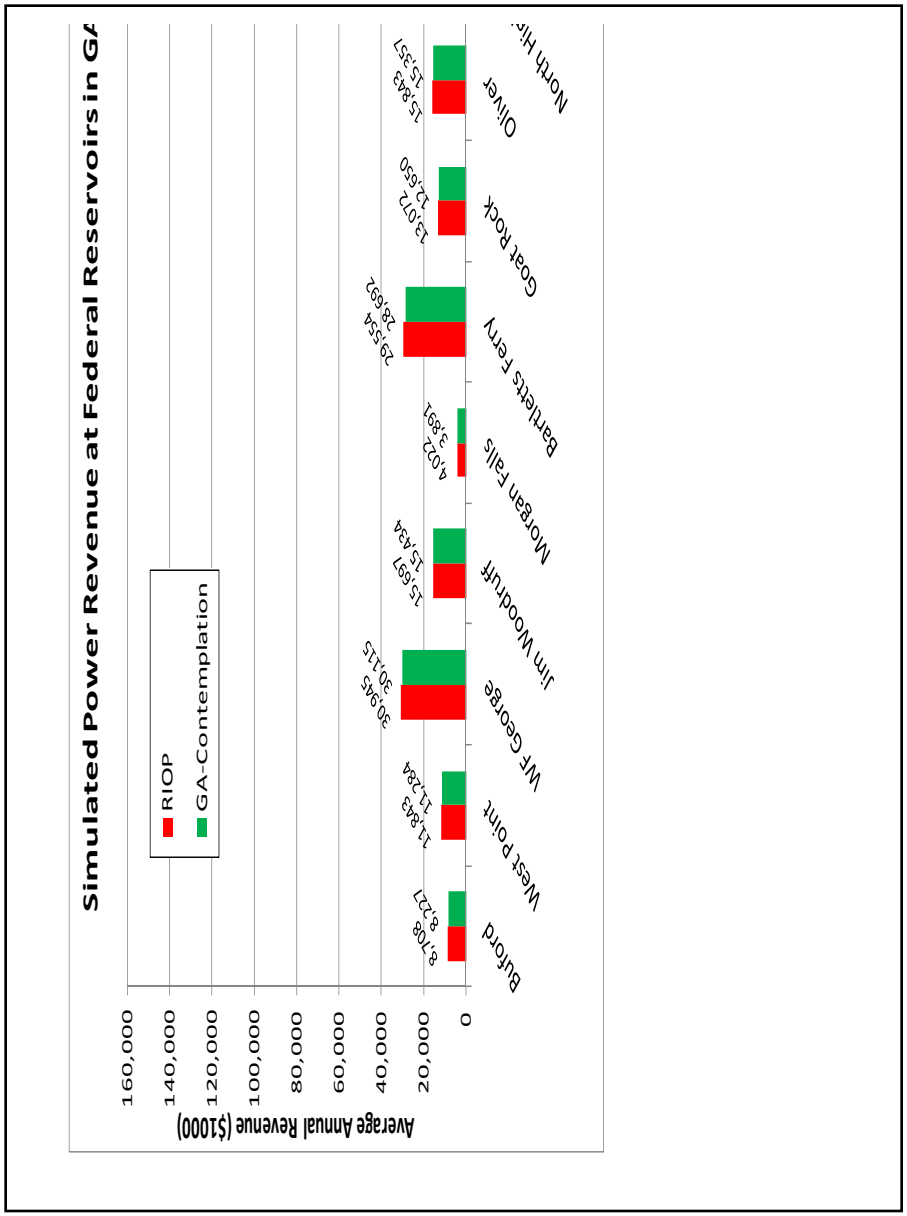

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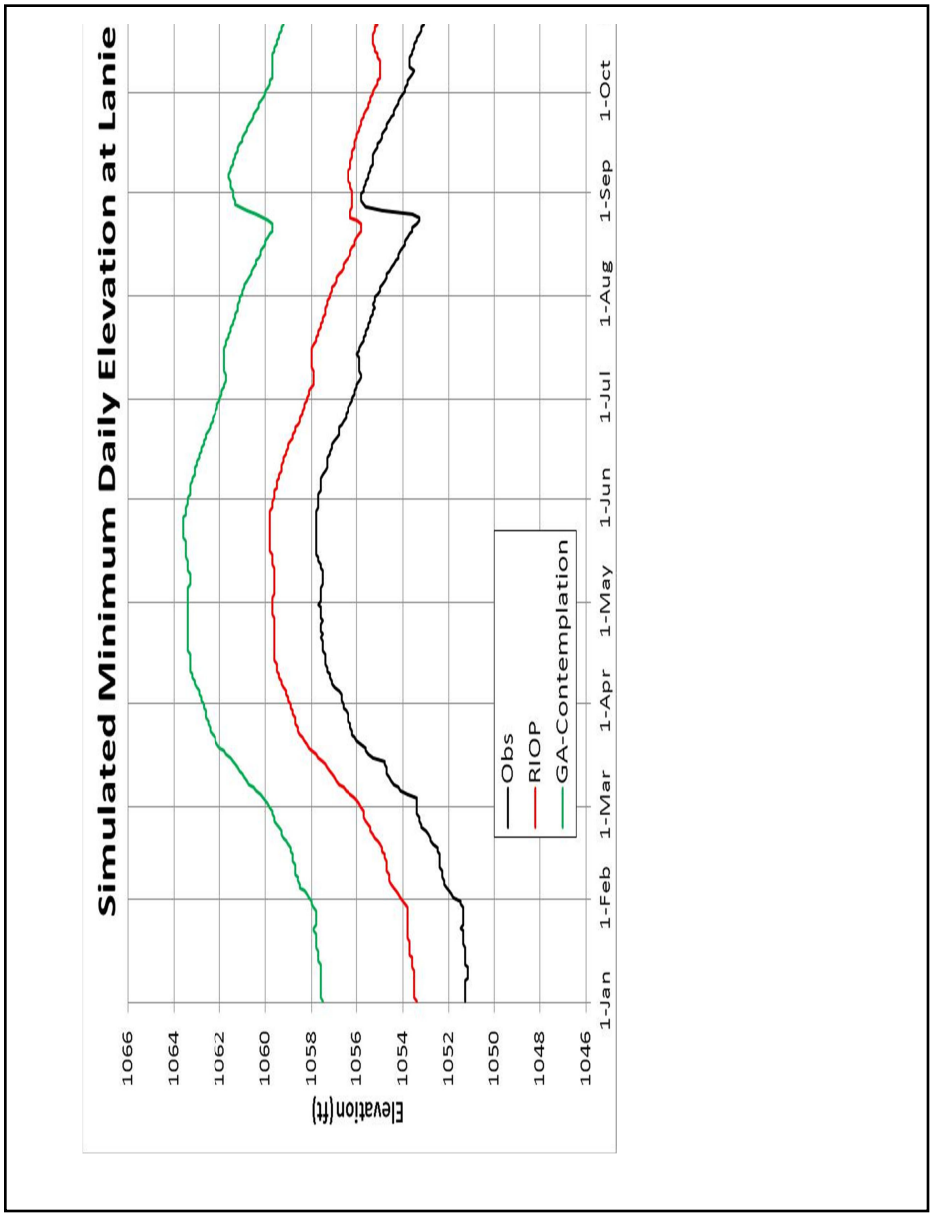

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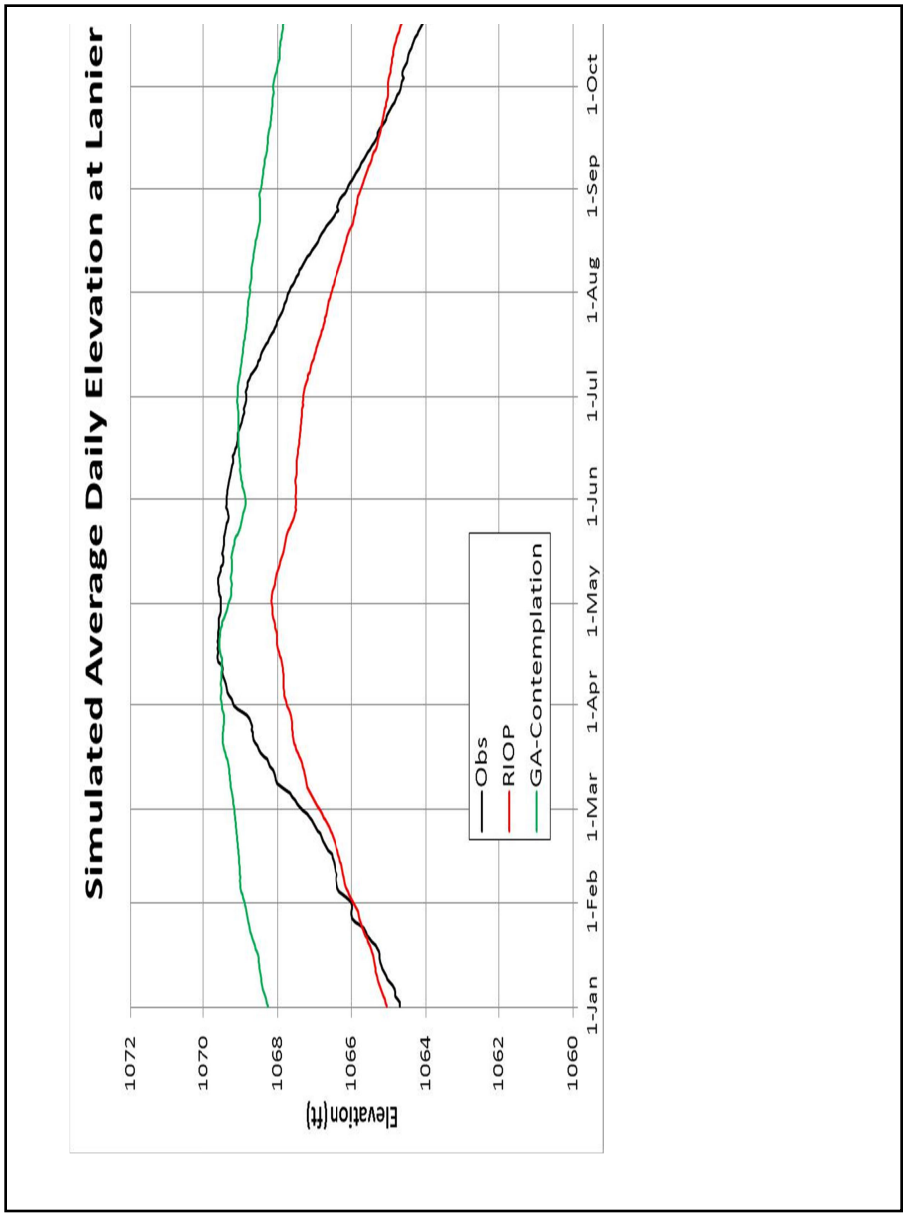

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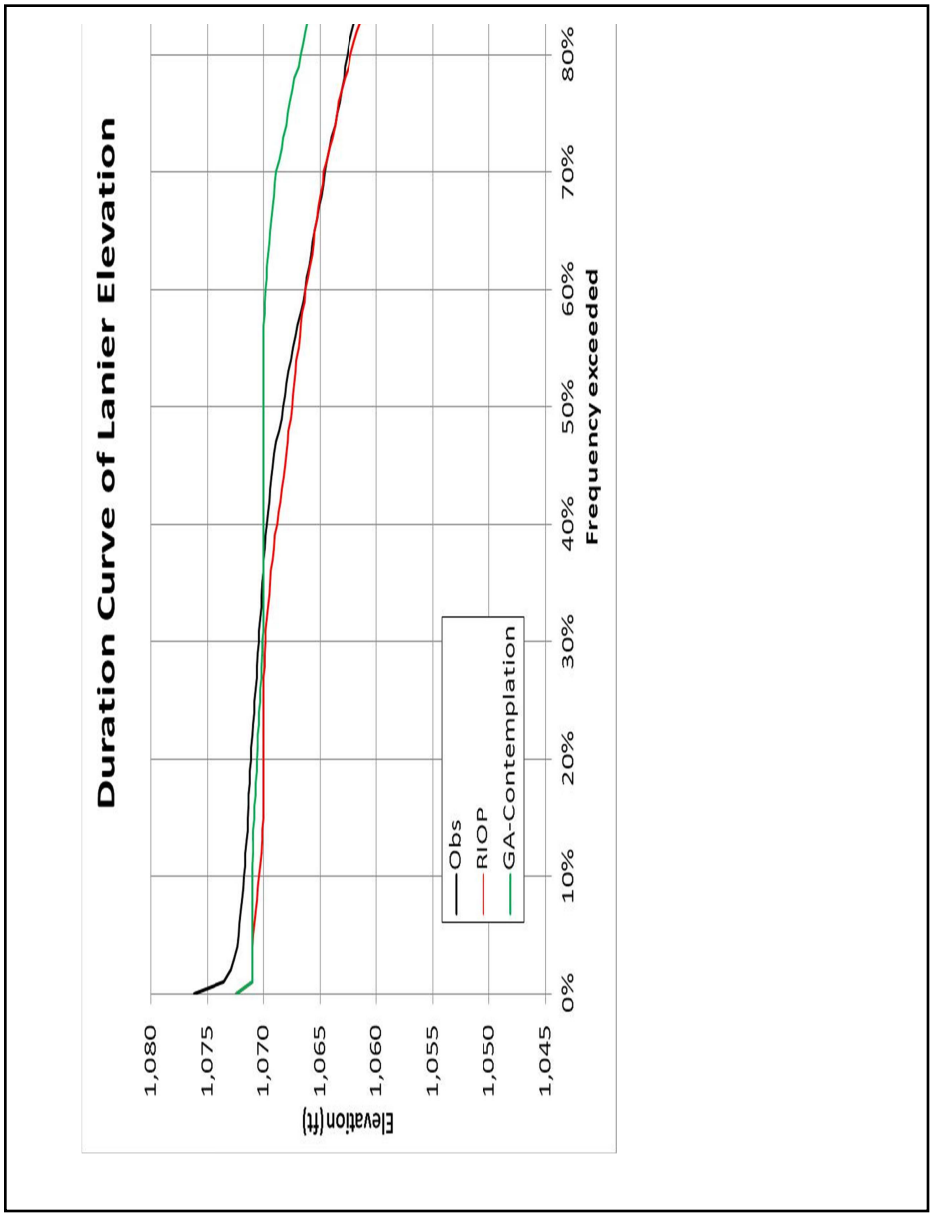

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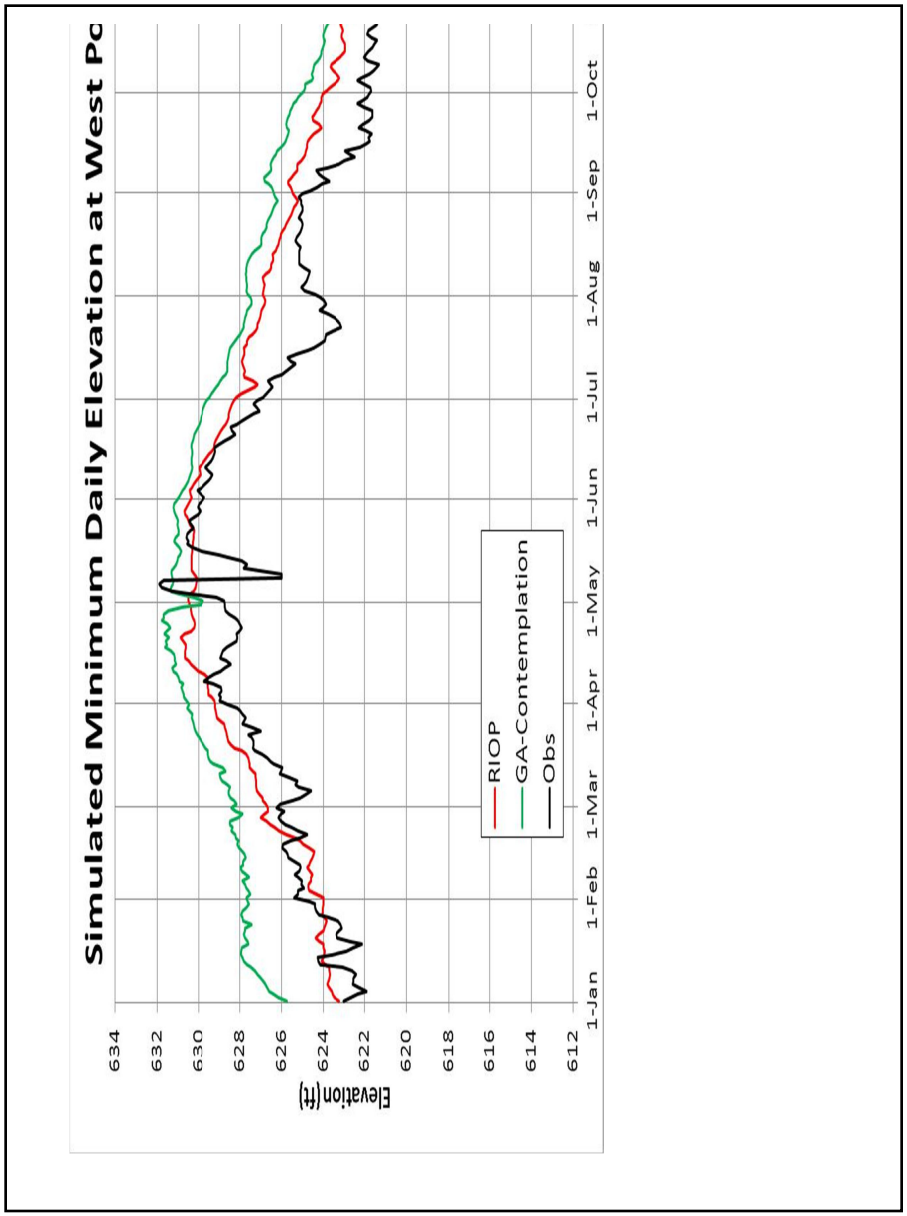

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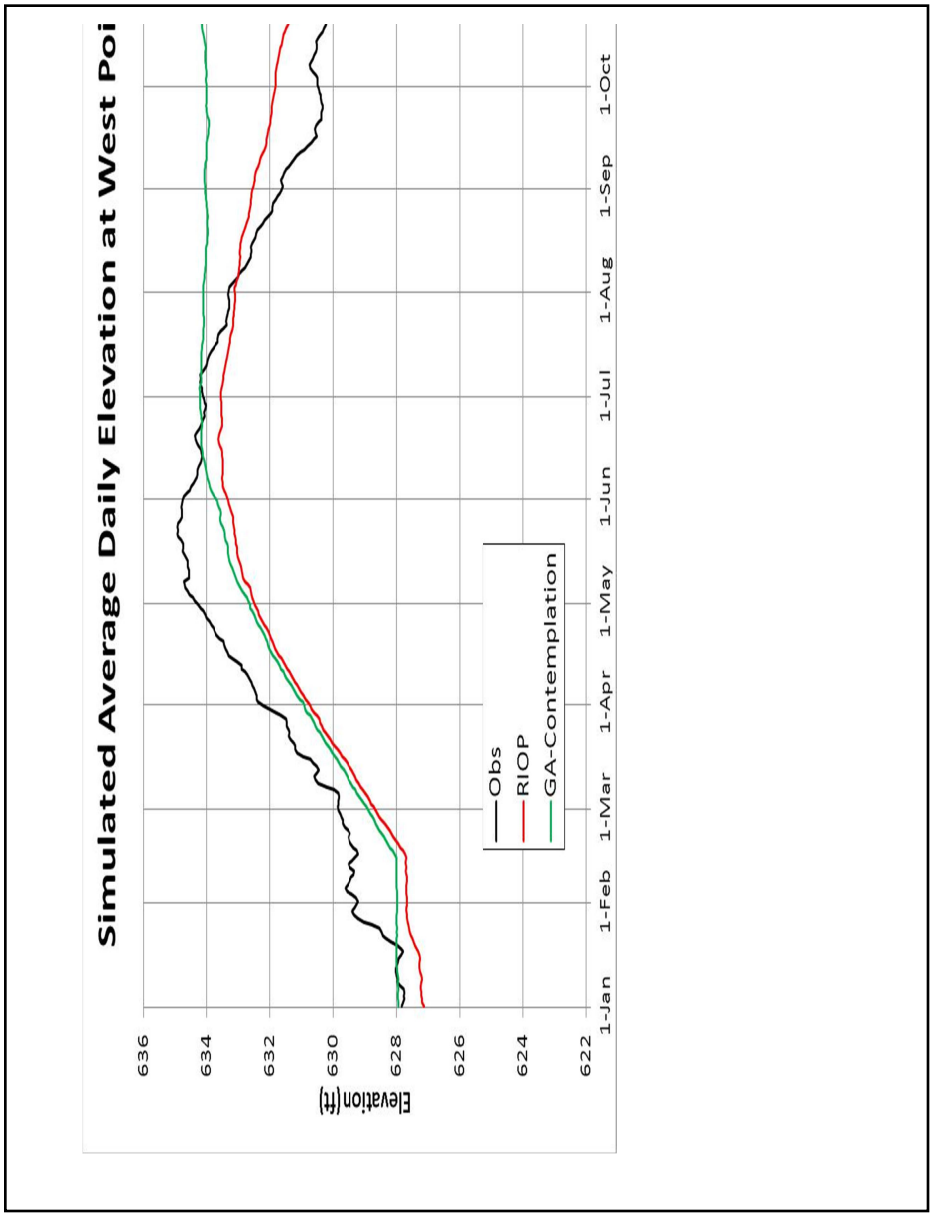

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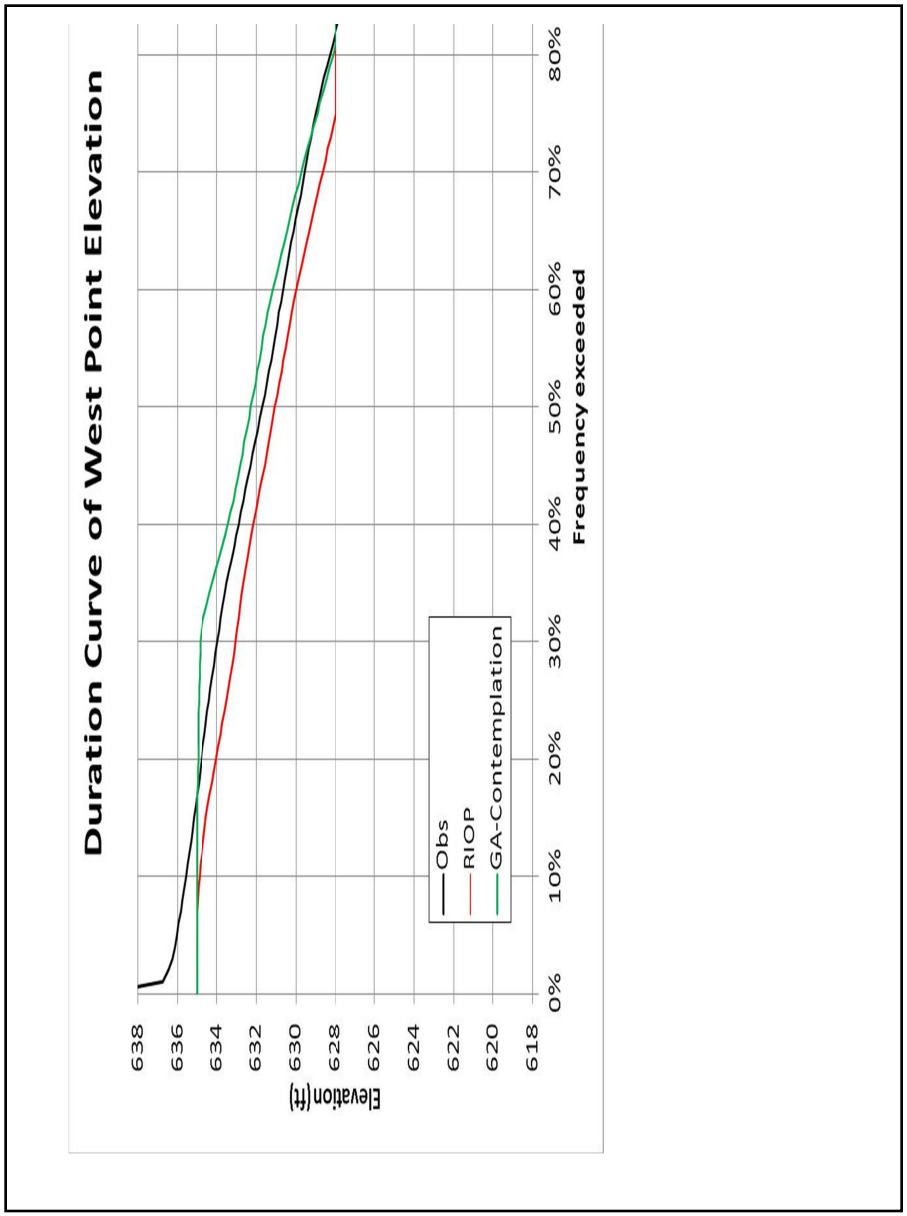

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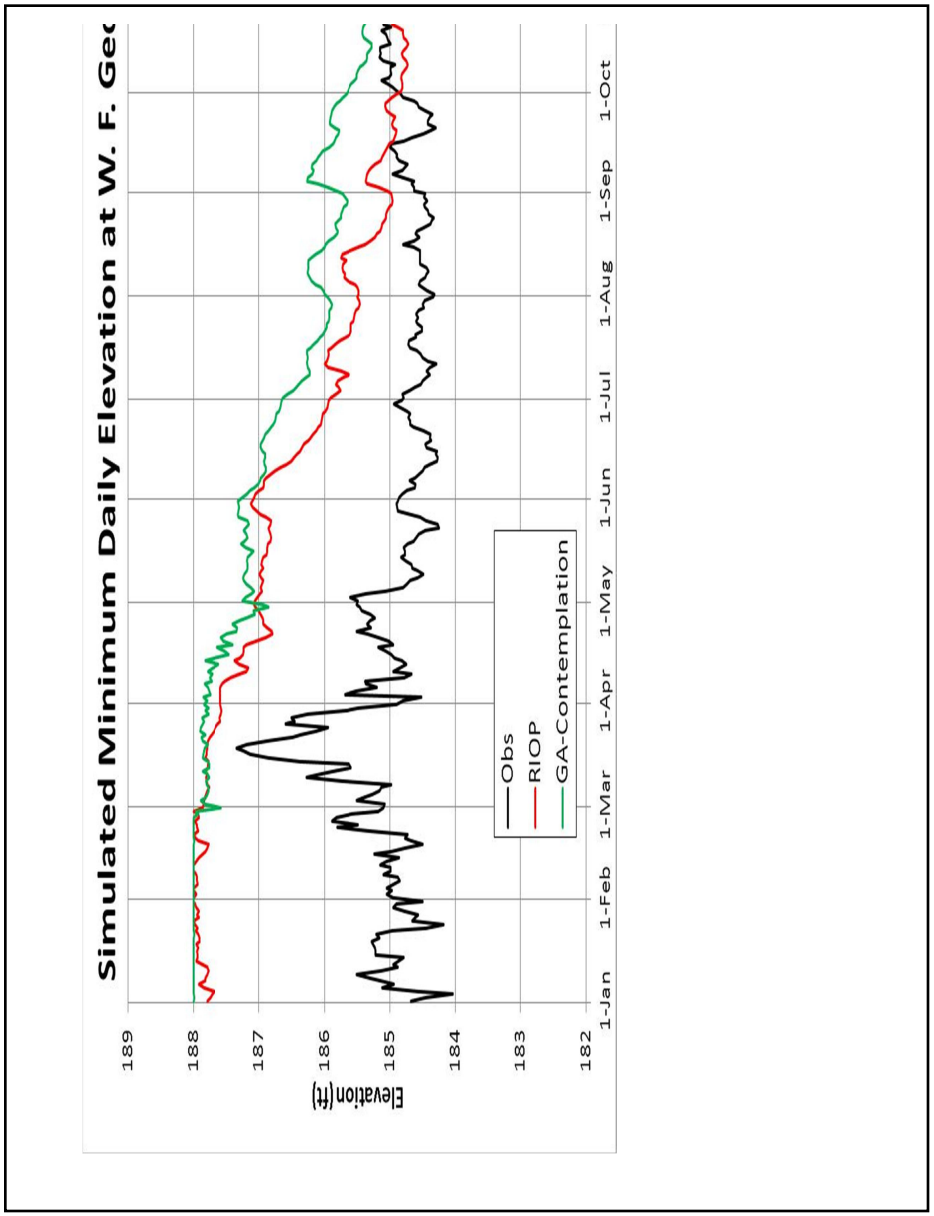

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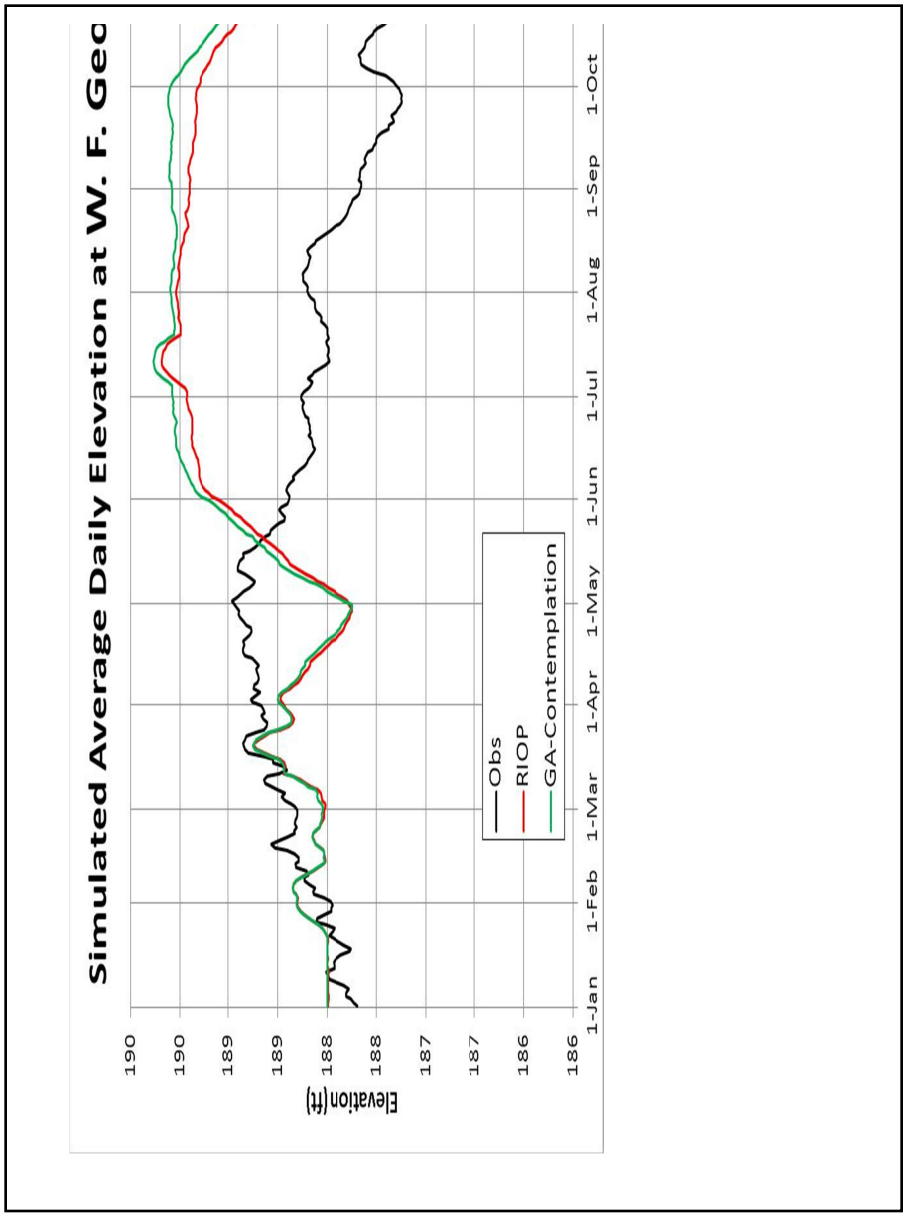

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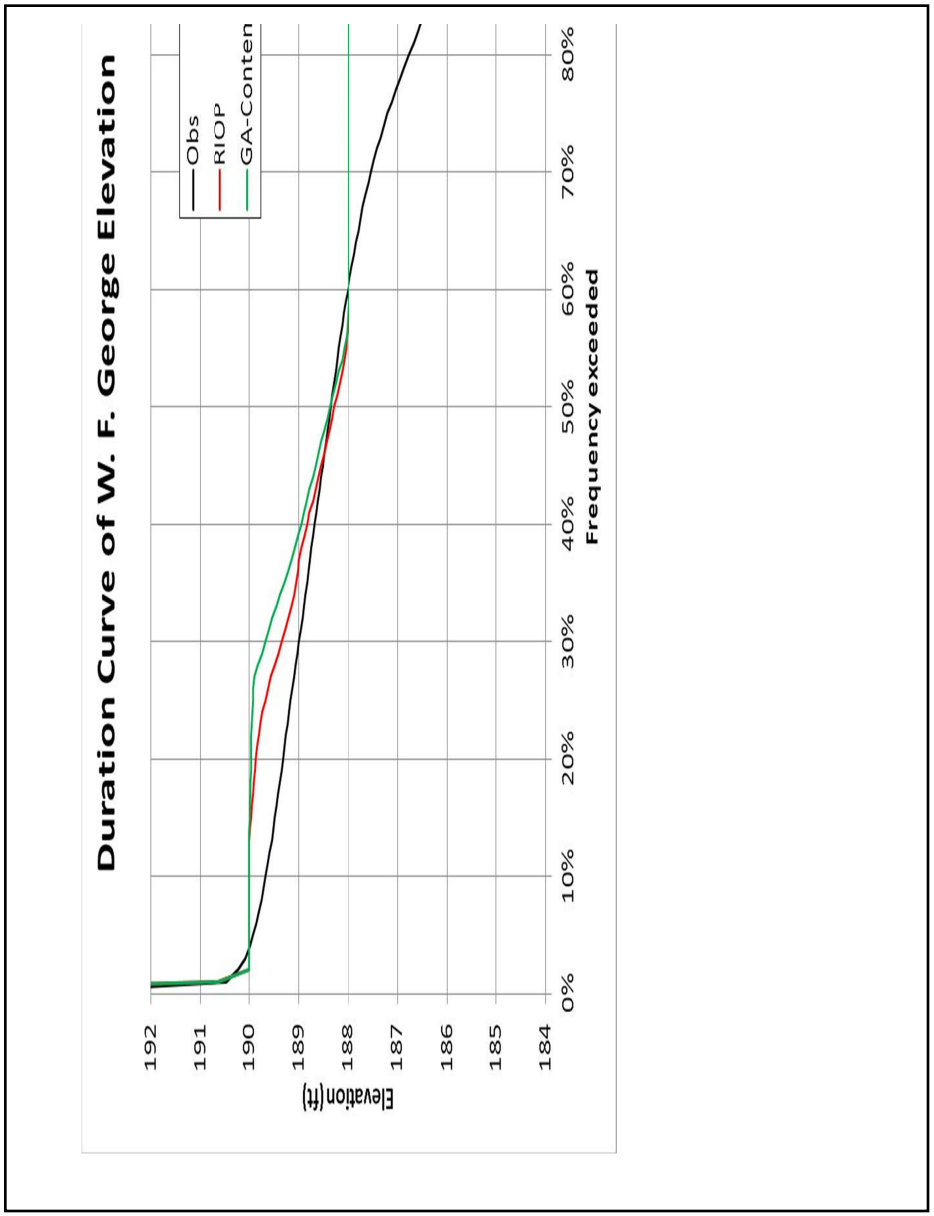
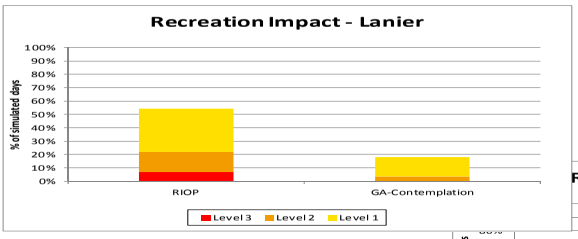
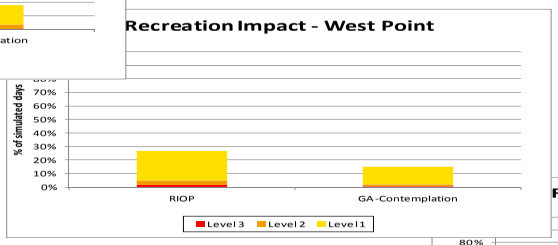
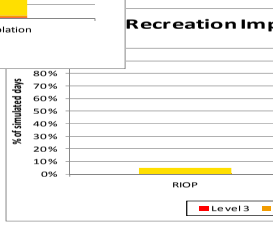


Recreation Im
Performance M







	Lanier	West Point	W.F. George
Initial Impact Level	1066 ft	632 ft	187 ft
Recreation Impact Level	1063 ft	628 ft	185 ft
Water Access Limit	1060 ft	627 ft	184 ft

What Kinds of Rules Achieve Th
Results: Sturgeon Spawning Habit
Floodplain Connectivity

- Tailor support to need
  - e.g., since 30-days is significant, according to FWS, use stor
    maintain spawning habitat/floodplain connectivity for the
    weeks of biologically significant period
- Select a sustainable level of support
  - Trial and error with simulation model
  - 22,500 cfs for floodplains, 10,500 cfs for sturgeon spawnin
- Do not provide this support during drou
  - e.g., antecedent inflows, forecasts, or storage below thresh

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What Kinds of Rules Achieve T
Results: Summer Flows

- Design summer flow mechanism to ma
  the amount of mussel habitat availabili
  - See resulting performance measure
- Also avoid plateaus in flows
  - Provide release pulses
  - Pulse magnitude varies by month and BI

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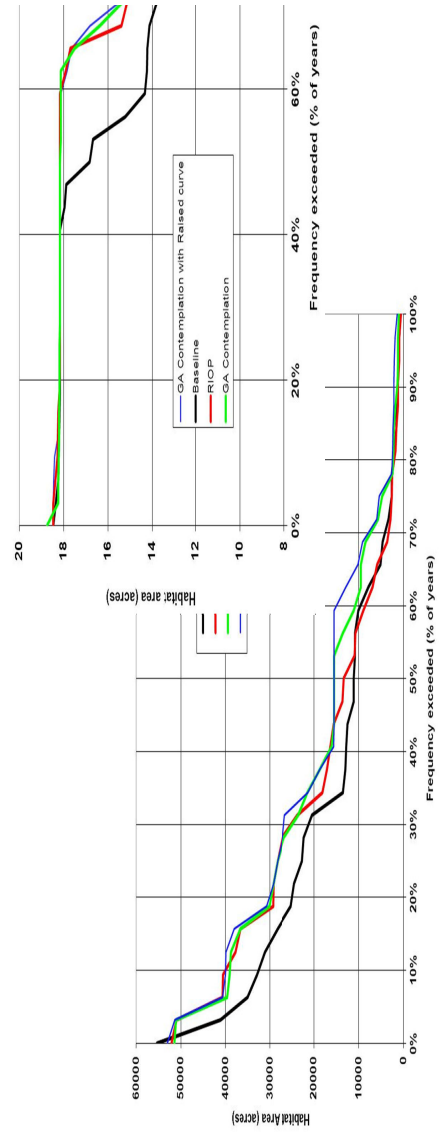
Also Possible to Reconsider I
Curves



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Summary

- Philosophical Approach
  - Design performance measures for aspects (interests/stakeholders) ir basin
  - Design operating rules that target performance measures
  - Use specific performance measure ways of evaluating operation alter

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Summary

- Better biological performance (sturgec habitat and floodplain connectivity) ca achieved with an alternative operatior scheme
- Better biological performance in muss habitat availability – a performance m based on bathymetric data strongly su

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Summary

- Very little difference between different operational alternatives in simulated sa for gulf sturgeon or at oyster bed in the Apalachicola Bay
- Direct performance measure of bay sali strongly suggested to replace surrogate

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Summary

- Subjecting peaking power generation to delivery needs has very little impact on hydropower generation and revenue
- Substantially improved reservoir storage Lanier, West Point, and Walter F. George
- Much lower recreation impact at Lanier, Point, and Walter F. George
- Healthier storage conditions ensure less frequent drought contingency operation avoids Drought Zone operation (4,500 c

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Summary

- Georgia EPD/ARC/Hydrologics will cont work with other partners to develop additional mussel habitat information
- Georgia EPD/ARC/Hydrologics urge USF use direct mussel habitat performance measures instead of surrogates in evalu operational alternatives

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Summary

- Georgia EPD will work with the Corps a USFWS to seek operation alternatives i WCM update process, so the basin as a can benefit from these findings

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Thank You

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Appendix: Biological Opinion Fig
and Other References

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Back to Ma

Frequency of Habitat Availak

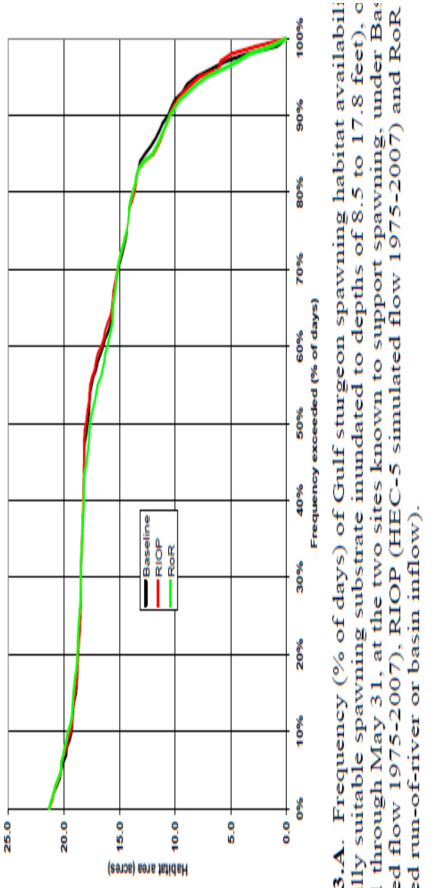

Figure 4.2.3.A. Frequency (% of days) of Gulf sturgeon spawning habitat availabili potentially suitable spawning substrate inundated to depths of 8.5 to 17.8 feet), c March 1 through May 31, at the two sites known to support spawning, under Ba (observed flow 1975-2007), RIOP (HEC-5 simulated flow 1975-2007) and RoR simulated run-of-river or basin inflow).

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Back to Ma

Frequency of Continuous Habitat Availability

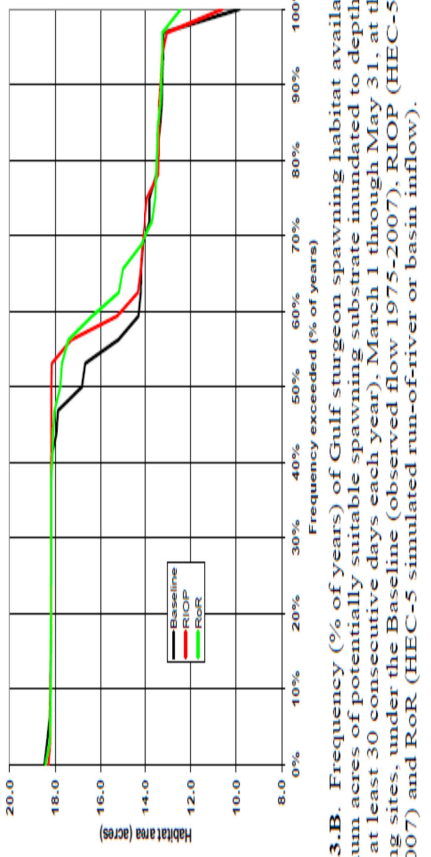

Figure 4.2.3.B. Frequency (% of years) of Gulf sturgeon spawning habitat availabi (maximum acres of potentially suitable spawning substrate inundated to depths feet for at least 30 consecutive days each year), March 1 through May 31, at the spawning sites, under the Baseline (observed flow 1975-2007), RIOP (HEC-5 si 1975-2007) and RoR (HEC-5 simulated run-of-river or basin inflow).

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Surrogate to Mussel Habitat Availability

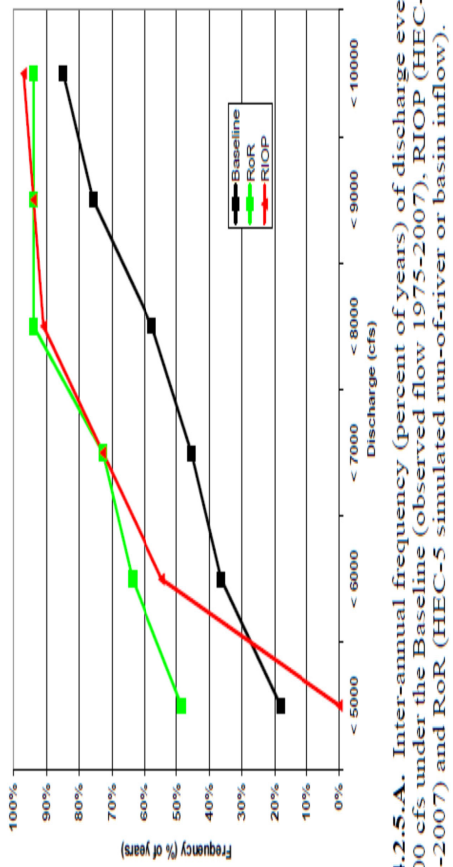

Figure 4.2.5.A. Inter-annual frequency (percent of years) of discharge events les 10,000 cfs under the Baseline (observed flow 1975-2007), RIOP (HEC-5 sim 1975-2007) and RoR (HEC-5 simulated run-of-river or basin inflow).

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Back to Ma

Frequency of Floodplain Connec

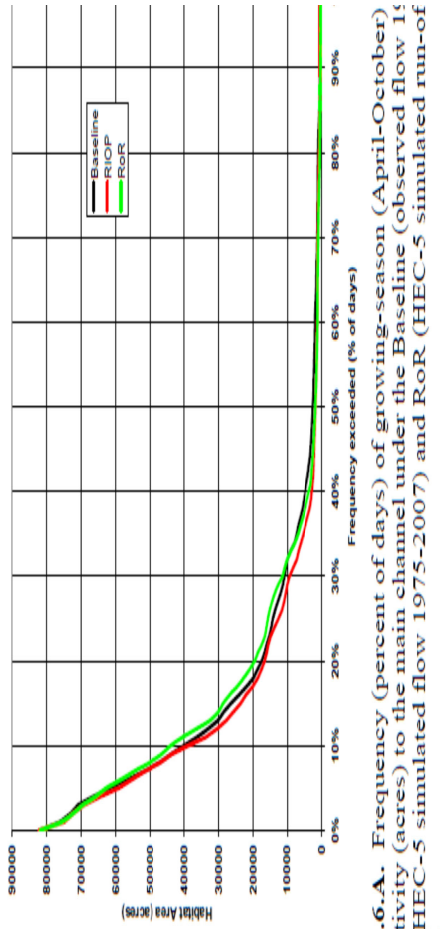

Figure 4.2.6.A. Frequency (percent of days) of growing-season (April-October) connectivity (acres) to the main channel under the Baseline (observed flow 19 RIOP (HEC-5 simulated flow 1975-2007) and RoR (HEC-5 simulated run-of inflow).

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Inter-annual Frequency of Flood Connectivity

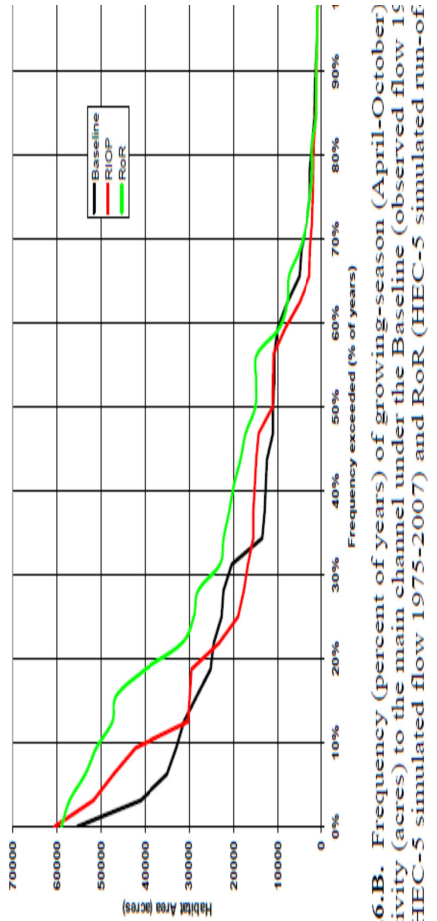

Figure 4.2.6.B. Frequency (percent of years) of growing-season (April-October) connectivity (acres) to the main channel under the Baseline (observed flow 1 RIOP (HEC-5 simulated flow 1975-2007) and RoR (HEC-5 simulated run-of inflow).

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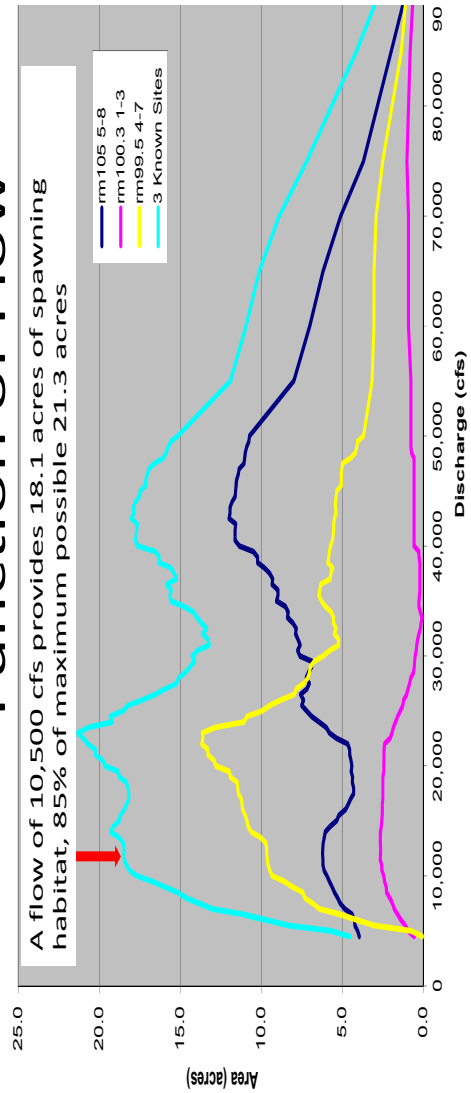
Sturgeon Spawning Habitat a Function of Flow



Back t

2012 USFWS Biological Opini
Fat Threeridge in Areas < 3 Feet

(Figure 3.4.1.1.B). The recolonization of these areas in the absence of summe events and corresponding levels of sediment aggradation instead supports our that the mussels respond to changing water levels by actively moving in searcl

habitat conditions. In general, active movement appears to be much more com previously assumed based on observations made in 2005-2008. Therefore, we the primary reason for shifts in fat threeridge distribution (in moderately depos that they move in response to changing water levels to maintain optimal habita which are associated with a depth of about 1 m. Sediment deposition may alsc more research is needed to assess the degree to which sediment deposition or s influence mussel movement.

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Back t

2012 USFWS Biological Opini
Appropriate Slopes at Mussel Ha

The well-documented main channel habitats typically occupied by the fat threeri moderately depositional hydraulic eddies of the channel usually downstream of p general, these aggrading sites have banks that are not eroding, slopes that are nei nor too steep (10-40%), firm silty-sand substrate, and are often associated with p willow (*Salix nigra*) stands.

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2012 USFWS Biological Opini
Mortality vs. Slope of Mussel Ha

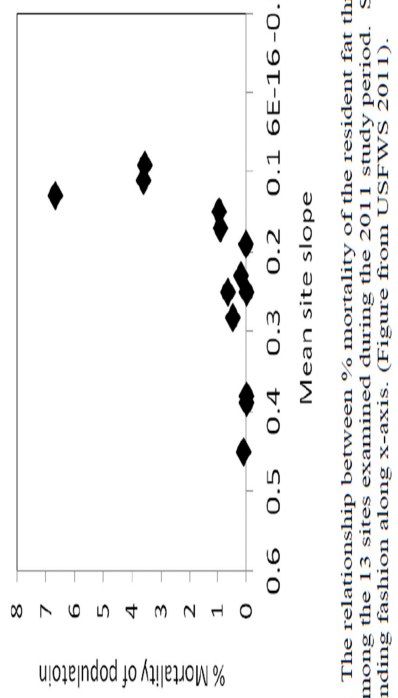

Figure 3.4.1.2.B. The relationship between % mortality of the resident fat threeridge and mean slope among the 13 sites examined during the 2011 study period. Slope val arranged in descending fashion along x-axis. (Figure from USFWS 2011).

Turner, Judson

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Back t

2012 USFWS Biological Opini
Mortality vs. Slope of Mussel Ha

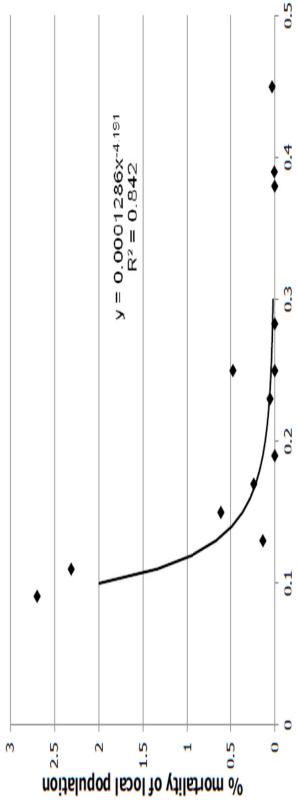

Figure 3.4.1.2.C. Relationship between percent mortality of the local fat threeridge I and mean site slope from mortality that occurred when releases were less than 5,000 (Chattahoochee in May and June 2011.

Turner, Judson

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Back to

Shoreline Recession Analysis in 2C

We used our 2011 assessment to evaluate the influence of fall rates on fat threeri and mortality. We calculated the linear distance of exposed bank (i.e., the distai must move to maintain its depth of position) over a range of stage declines for a gradients (5–45% slopes) (Figure 3.4.1.2.A). This model provides a convenient hypothetical risk of exposure among sites related to slope and drawdown factors site RM 44.5 had a mean slope of 28%. A decline of water surface elevation of the prescribed fall rate in the Corps' current operations) on a 25% slope grade ex approximately 30 cm of bank per day, requiring mussels located in this zone to r distances to remain submerged at comparable depth. We observed that mussels than 50 cm/day, which may be sufficient to avoid exposure on slope gradients o drawdown rate of 0.25 ft/day. This relationship may explain why very little exp mortality was observed at RM 44.5. On the other hand, site RM 44.3 had a mea 9%, requiring mussels to move 77 cm per day at a drawdown rate 0.25 ft/day. A demonstrated the ability to move such distances, slopes at the upper end of this s stranding and mortality occurred, were actually <5%. Such drawdown on 5% sl linear cm of bank per day, and our data show that these distances exceeded the n capacity of many mussels at RM 44.3. Fall rates are likely particularly importan reach of the Apalachicola River where fat threeridge density is high, but many si shallow-sloped, especially at the upstream-most portions as described above.

Turner, Judson

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Shoreline Recession Analysis in 2C

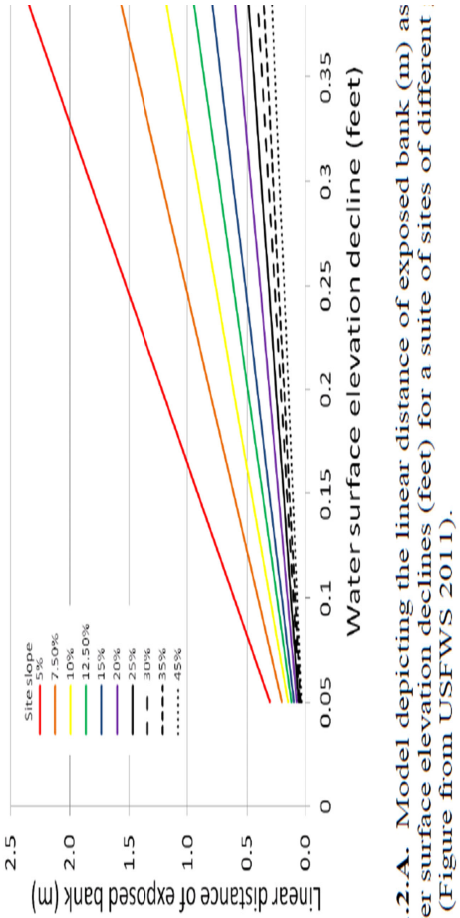

Figure 3.4.1.2.A. Model depicting the linear distance of exposed bank (m) as range of water surface elevation declines (feet) for a suite of sites of different 45% slopes) (Figure from USFWS 2011).

Unknown, Unknown

Page 1 of 2

12/14/12

Tetra Tech
Attention: ACF-WCM
61 St. Joseph Street
Suite 550
Mobile, AL 36602-3521

Scoping Comments for ACF Water Control Manual

I submit the following comments in the recently reopened public scoping period:

1) There is a definitive need for additional storage in the ACF Basin; and that storage is readily and safely available in West Point Lake. Recent studies submitted to the USACE demonstrate that West Point Lake (WPL) can be maintained at a minimum 632.5 MSL year round; and if managed differently, the risk of downstream flooding during major rain events can actually be reduced! The trifecta is there to be won: Increased storage + Better management = Reduced flooding!

2) WPL is specifically authorized by Congress for Recreation and Sport Fishing/Wildlife Development in addition to Flood Control, Navigation, and Hydropower. Flood Control can be improved as outlined in the Operations Study referred to in #1 above and which study has been previously submitted to the USACE. Hydropower and Navigation both benefit from the availability of increased storage. The USACE must deliver and honor the Recreation and Sport Fishing/Wildlife Development Authorizations stipulated under law by Congress.

3) In order to accomplish #1 and #2 above, the Rule Curve needs to be adjusted upward to a minimum 632.5 MSL and the Action Zones need to be modified upward as well to a minimum 630.0 at the bottom of Action Zone 4. The parameters of 632.5 and 630.0 MSL are significant because they represent the initial and second recreation impact levels respectively as defined by the USACE.

Unknown, Unknown

Page 2 of 2

2.

4) The economic damages to the WPL communities and the lack of economic development due to unnecessarily low and undependable lake levels need to be assessed and stopped. Small businesses have gone bankrupt and others have been stretched to keep their doors open. Major fishing tournaments have been cancelled damaging hotels, restaurants, marinas, and lake related businesses. Visitation is down and campgrounds have been closed. Land specifically set aside for a hotel, conference center, golf course, etc. has never been developed. We are blessed with a moderate climate and WPL should be managed as a 52 week a year lake with the corresponding benefit of a 52 week a year lake related economy! WPL needs a dependable and reliable lake level to provide for economic development and stop the economic harm.

5) Environmental harm to WPL needs to be documented. Due to wildly vacillating lake levels, the fish spawn has suffered significantly in 3 of the last 5 years and the quality of the fishery, specifically the bass and crappie, has declined. Thousands, if not hundreds of thousands of mussels have been killed threatening water quality; erosion has increased the cost of water treatment; and siltation continues to eliminate valuable storage.

6) USFWS needs to be challenged to provide their science and document the need for 5,000 cfs for endangered species. Why 5,000 cfs? Why not 2,000 cfs? How many of each endangered species are there? Do they exist in deeper water than previously thought? What is the Recovery Plan? Are they still endangered, threatened, or neither? Can they be relocated to other areas where water is more plentiful and the economic damages are less. Who is looking out for the welfare of the small businessman? Common sense would seem to dictate that the needs of man should be balanced with the needs of the critters. The RIOP needs close analysis as part of the EIS to see what changes can be made to avoid destroying the economic, environmental, and recreational value of WPL during all times other than "extreme" drought!

I thank you for the opportunity to comment and ask that the above issues be submitted and studied during the EIS period.

Sincerely,

Unknown 1 (Illegible), Unknown 1 (Illegible)

Page 1 of 3

11/18/12

Tetra Tech
Attention: ACF-WCM
61 St. Joseph Street
Suite 550
Mobile, AL 36602-3521

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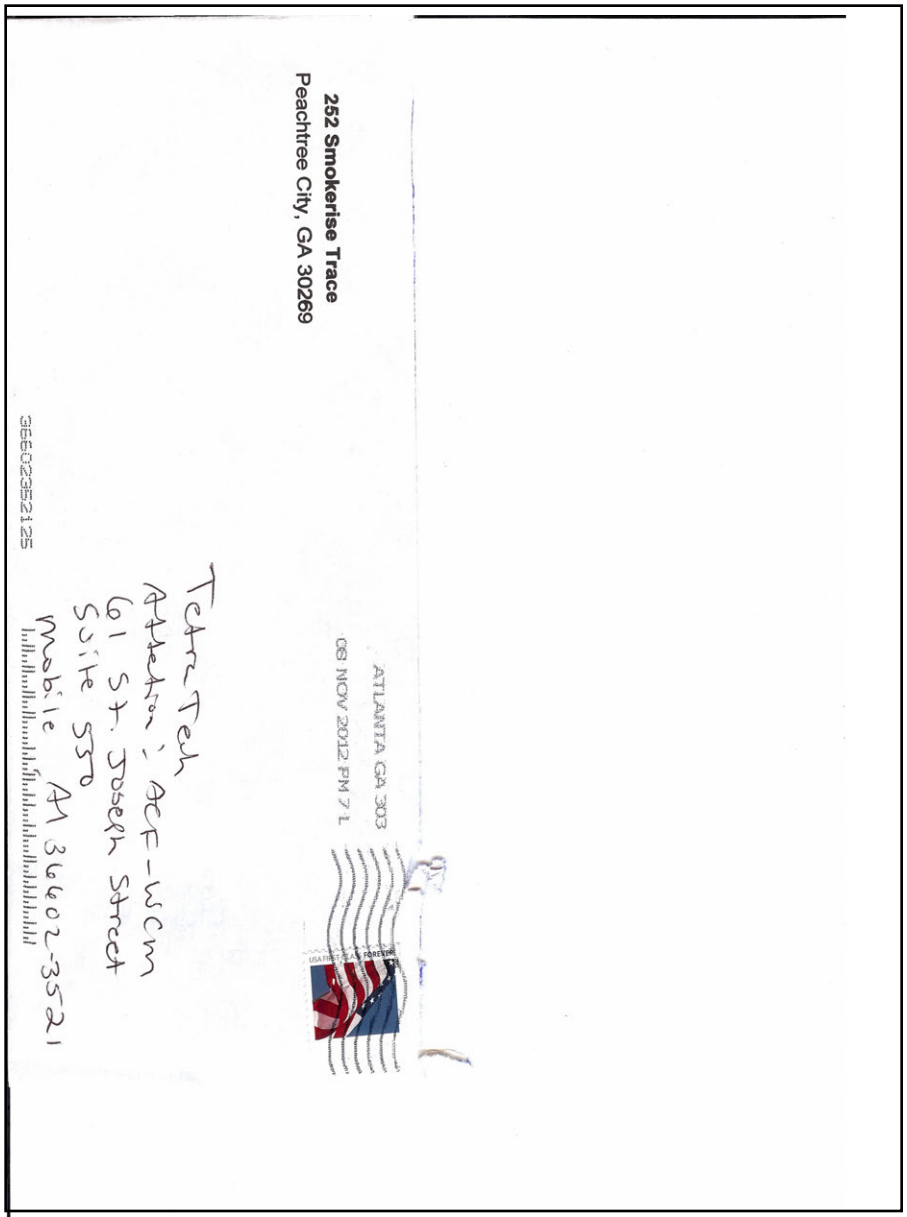

Unknown 2 (Illegible), Unknown 2 (Illegible)

Page 1 of 2

11/8/12

Tetra Tech
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Unknown 2 (Illegible), Unknown 2 (Illegible)

Page 2 of 2

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Unknown 3 (Illegible), Unknown 3 (Illegible)

Page 1 of 2

11/24/12

Tetra Tech
Attention: ACF-WCM
61 St. Joseph Street
Suite 550
Mobile, AL 36602-3521

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Unknown 3 (Illegible), Unknown 3 (Illegible)

Page 1 of 2

Typed version of Comment 2012-0097 (copy of original handwritten letter follows on next page):

December 10, 2012

Dear US Army Corp:

Please allow more water to flow to Apalachicola Bay Florida

You know all the reasons. Please don't let the Atlanta developers kill a beautiful, productive or – rather – once productive gift of nature and [illegible] those who live on the Bay.

You have so much power. Please use it wisely.

Sincerely,

T [illegible]
A retired lawyer with no secretary

Unknown 3 (Illegible), Unknown 3 (Illegible)

Page 2 of 2

December 10, 2012

Dear US Army Corps:

Please allow more water to flow to Apalachicola Bay Florida

You know all the reasons. Please don't let the Atlanta developers kill a beautiful, productive or rather once productive gift of Nature and impoverish those who live on the Bay.

You have so much power. Please use it wisely.

Sincerely,

Tom H. [illegible]
a retired lawyer
with no seafood

Unknown 6, Unknown 6 (Illegible)

Page 1 of 2

1/11/13

Tetra Tech
Attention: ACF-WCM
61 St. Joseph Street
Suite 550
Mobile, AL 36602-3521

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Unknown 6, Unknown 6 (Illegible)

Page 2 of 2

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Sincerely,

1-11-13

Urbanick, Burton

Page 1 of 1

1/14/2013

COMMENTER: Burton Urbanick
3130 edgewater dr
Gainesville, GA 30501

ORGANIZATION:

COMMENTS: Lake Lanier needs class action suit to protect the rights of citizens against the ABUSE we have suffered for the "Damage to our economy and our personal property". We need to hold the U.S. Govt liable for 30 years of "Negligence" in propagating careless management of Water levels behind the archaic laws that have been used to defend their indifference in Washington. Send Georgia some of the ludicrous $$ you spend on third world countries for their building programs. FILE OUR CLASS ACTION SUITS IN WASHINGTON !

Vannes, Joan

Page 1 of 2

12/6/12

Tetra Tech
Attention: ACF-WCM
61 St. Joseph Street
Suite 550
Mobile, AL 36602-3521

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Vannes, Joan

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Sincerely,

Joan Vannes

Vizzini, Tom

Page 1 of 2

1/14/2013

COMMENTER: Tom Vizzini
2659 Freedom PKWY #183
Cumming, GA 30041

ORGANIZATION: Essential Skills

COMMENTS: The water Management at Lake Lanier does not fill the needs of those around the lake or the Atlanta area.

We are currently trapped by 2 contradictory policies.

1 That Lake Lanier should be used to supply a demand that is not regulated down stream. The withdrawal of water in Alabama and Florida along with the increasing withdrawal from increasingly water dependent crops for down stream farming make using Lake Lanier and unsustainable lake. There is always going to be a higher demand for water than there is a supply for the lake.

I suggest that in low level conditions that the release of water be tied to a percentage of the measured inflow. This will allow the lake to replenish itself while supplying down stream needs.

2 When we are lucky enough to get sufficient rain we are currently limited to a full pool of 1071. That has proven to be too low to sustain the lake in today's climate. With the amount of silt deposited in the lake the capacity for what it can hold has certainly been decreased on the 50 years the lake has been here. Unless a dredging program for increased capacity can me implemented, at great expense I imagine, the easiest and most cost effective was to increase capacity is to raise full pool to 1073.

As of now nothing at all has been done.

The frustration come from living in the lake area when we have strict water restrictions and seeing that other states have none and can pull as much out of the system as they desire. This drains our lake and puts pressure on our lake economy.

Thousands of jobs have been lost due to low lake conditions. Also the lake has become more and more unsafe due to low water levels.

I also agree with other positions like:

- The 5,000 cfs minimum flow required at the state line is not representative of the true lowest historical flows in the ACF and is not sustainable.

- Lanier was never designed to support ALL downstream demands and can't be expected to because the dams originally proposed on the Flint River were never built.

Vizzini, Tom

Page 2 of 2

- The Corps' current operating rules require more water to be released from Lanier than is necessary and do not allow as much to be stored as is possible. These draw the lake down more than necessary and make it less likely to refill to full pool under contemporary climatic conditions.

- The Endangered Species Act does not require the Corps to augment Apalachicola River flows above run-of-river levels and the practice should not be required because it depletes Lanier unnecessarily.

- Regular navigation is no longer feasible on the ACF and the Corps should not try to support it in view of the other demands on Lanier as a resource of last resort.

Thank you for your consideration.

Voss, Carroll

Page 1 of 1

1/14/2013

COMMENTER: Carroll Voss
3320 Lake Shore Dr.
Cumming, GA 30041

ORGANIZATION:

COMMENTS: I don't believe it is logical for downstream users to receive more water flow than what is provided by normal rain-fall in the Chattahoochie River basin.
Therefore I strongly request the Corp. to reduce the minimum flow to the average five year rain-fall flow.

Wagner, David

Page 1 of 1

1/14/2013

COMMENTER: Dr. David B. Wagner
816 West Gulf Beach Drive
St. George Island, FL 32328

ORGANIZATION:

COMMENTS: I have had a property on St. George Island for over 40 years. I have seen the Bay under many different conditions. The condition of the Bay in 2013 is a great concern. For the first time I had a sinking feeling that the Bay will never be the same. My concerns obviously are that it is not getting enough fresh water. I am also concerned with the change in direction of the agriculture in SW Georgia and the increased use of Pivots to water crop land. This water use is virtually uncontrolled and is having a serious effect on the river levels. It is a complex issue but one thing remains clear. While others use water for many uses, water is critical to the Bay. No one can have as big a loss as the people of Franklin County. Priorities must be set and survival is the very highest of priorities.

Walters, Wesley

Page 1 of 2

11/10/12

Tetra Tech
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61 St. Joseph Street
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Mobile, AL 36602-3521

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1) **There is a definitive need for additional storage in the ACF Basin; and that storage is readily and safely available in West Point Lake. Recent studies submitted to the USACE demonstrate that West Point Lake (WPL) can be maintained at a minimum 632.5 MSL year round; and if managed differently, the risk of downstream flooding during major rain events can actually be reduced! The trifecta is there to be won: Increased storage + Better management = Reduced flooding!**

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3) **In order to accomplish #1 and #2 above, the Rule Curve needs to be adjusted upward to a minimum 632.5 MSL and the Action Zones need to be modified upward as well to a minimum 630.0 at the bottom of Action Zone 4. The parameters of 632.5 and 630.0 MSL are significant because they represent the initial and second recreation impact levels respectively as defined by the USACE.**

Walters, Wesley

Page 2 of 2

2.

4) **The economic damages to the WPL communities and the lack of economic development due to unnecessarily low and undependable lake levels need to be assessed and stopped. Small businesses have gone bankrupt and others have been stretched to keep their doors open. Major fishing tournaments have been cancelled damaging hotels, restaurants, marinas, and lake related businesses. Visitation is down and campgrounds have been closed. Land specifically set aside for a hotel, conference center, golf course, etc. has never been developed. We are blessed with a moderate climate and WPL should be managed as a 52 week a year lake with the corresponding benefit of a 52 week a year lake related economy! WPL needs a dependable and reliable lake level to provide for economic development and stop the economic harm.**

5) **Environmental harm to WPL needs to be documented. Due to wildly vacillating lake levels, the fish spawn has suffered significantly in 3 of the last 5 years and the quality of the fishery, specifically the bass and crappie, has declined. Thousands, if not hundreds of thousands of mussels have been killed threatening water quality; erosion has increased the cost of water treatment; and siltation continues to eliminate valuable storage.**

6) **USFWS needs to be challenged to provide their science and document the need for 5,000 cfs for endangered species. Why 5,000 cfs? Why not 2,000 cfs? How many of each endangered species are there? Do they exist in deeper water than previously thought? What is the Recovery Plan? Are they still endangered, threatened, or neither? Can they be relocated to other areas where water is more plentiful and the economic damages are less. Who is looking out for the welfare of the small businessman? Common sense would seem to dictate that the needs of man should be balanced with the needs of the critters. The RIOP needs close analysis as part of the EIS to see what changes can be made to avoid destroying the economic, environmental, and recreational value of WPL during all times other than "extreme" drought!**

I thank you for the opportunity to comment and ask that the above issues be submitted and studied during the EIS period.

Sincerely,

Wesley F. Walters

Watkins, Linda

From: Linda Watkins <lswatkinsfocus@gmail.com>
Sent: Thursday, November 08, 2012 6:26 PM
To: ACF-WCM
Subject: OUR LAKE

West Point Lake is a landing spot for waterflowl heading south for the winter. I have noticed significantly fewer numbers recently. We are creating a situation where LaGrange will no longer be a place for people to come for recreation, or fishing. Our docks are sitting in mud, people that built docks and bought boats have to go to Alabama for their water sports. Water will bring business and recreation for all. Our property values suffer because of a lake of mud. It will not be long before LaGrange is bypassed altogether because of the lack of water. Past management practices have not worked. Please correct this before it is too late. Linda Watkins LaGrange, GA

Webb, Brenda

From: Brenda Webb <bwebbrn@gmail.com>
Sent: Friday, November 02, 2012 2:38 PM
To: ACF-WCM
Cc: Zack
Subject: Lake levels

I read once again, the article about the low lake levels. In my particular case, it is WestPoint Lake. I am a recreational boater. I own a $250,000 houseboat moored at Southern Harbor Marina. I love the lake, my houseboat, the friends who come to A dock for fun and relaxation. It troubles me each year as the ROLLER COASTER RIDE begins in August as to whether there will be enough water to float my boat in or even take it over to pump out. I think I have reached a point where it would be better to sell it than be concerned year round. However, selling is not an option because I cannot even pay
$5000-6000 to have a mover come pull the boat out since the ramp water is so low. I can only imagine those wishing to sell their homes on WPL.

As has been reported many times, there are endangered mussels and oysters and that is the reason or at least one of them that necessitates the lowering of the lake level. As Mr. Timmerberg said, the small business man is really the "endangered species" . Maybe, maybe not...it is not just the businesses, it is boat owners, house owners, those with and without boats and docks. We all suffer because we cannot use what we purchased.

I am so disappointed in the Corps, the Government, our legislators and even our WPLC. They all talk a good game but there are NEVER any results. We can put a man on the moon but we cannot figure out how to store and release water. Just saying...maybe it is the boat owners, house owners, small business man and others involved that should be asked what the solution is. I think it is a political issue and probably not one high on anyone's priority list. Believe me, it is high on my list. I went out yesterday to check my boat and I had 6 feet of water under a 16 by 80 foot, 3 bedroom, 2 bath boat that I cannot even use. I cannot use the baths because I cannot pump out which certainly limits staying more than a couple of hours. I often wonder how the mussels and oysters survived before the lake came to be developed!!!!! Must have been a miracle....

Because I doubt this will even be read or moved upon, I will stop with my comments.

Brenda Webb
1356 Old Chipley Rd
Pine Mountain, Ga. 31822
706-302-5111

Sent from my iPad

Weeks, Brian

Page 1 of 1

Cannella, Michelle

From: DIV.ACF.EIS
Subject: FW: ACF - Lake WestPoint - Master Water Control Manual Updates Comment

From: Brian Weeks [mailto:bkweeks@fedex.com]
Sent: Friday, December 28, 2012 10:29 AM
To: ACF-WCM
Cc: adelle weeks; gene_sylviadavis@bellsouth.net; Buchanan, DC; Aalderks, Paul; Russ GREENWAY
Subject: ACF - Lake WestPoint - Master Water Control Manual Updates Comment

Dear USACE WCM and Tetra Tech, Inc.,

These comments are in regards to the outdated guidelines and mismanaged reservoir levels on Lake WestPoint.

1.The annual dramatic reservoir level fluctuations on Lake WestPoint create constant shoreline erosion and silt build up. Lake WestPoint is already a shallow lake compared to others in the ACF.
2. The new plan to maintain Lake WestPoint at Full Pool for 90 days each year June 1 to September 1, (while a drastic improvement over current fluctuations), is still a dramatic waste of fresh water, one of our shrinking global natural resources.
3. Lake WestPoint was created not only for conservation efforts, but for public recreation as well. The low lake levels create a hazardous environment for recreation for boaters, skiers, and fisherman due to the close proximity of stumps to the surface during low lake level periods.
4. All lakes on the ACF should be able to be better maintained with higher lake levels each year. Anything under 630 lake level is ridiculous as the low level for Lake WestPoint. There is no data to support anything under 630 as the minimum lake level.
5. The fact that it is going to take 10 years to change and implement the ACF guidelines is another example of the Federal Government and the U.S. Army Corp Of Engineers inability to accomplish any task or goal in a timely manner.

Sincerely,
Brian K. Weeks
171 South Pine Cove Drive
LaGrange, GA 30240
Phone: (404) 918-1615
Email: bkweeks@fedex.com

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Weiler, Caroline

Page 1 of 1

1/12/2013

COMMENTER: caroline weiler
29 8th street
apalachicola, FL 32320

ORGANIZATION:

COMMENTS: All I know is that my town is very dependent on sufficient water coming down the river to keep the estuary alive and well. It seems very important, even to the world, to keep this system healthy. More important than lawns and swimming pools upstream. Yes, I know water is needed for drinking too, but isn't it possible to restrict water usage to only what is necessary? For the good of all?
We should all be able to work together for the best outcome. I do so hope. There is much to lose if not. The livilihood of my community and a treasure for the planet.

Wharton, Ruth

Page 1 of 1

1/13/2013

COMMENTER: Ruth Wharton
2873 Saint Augustine Road
Monticello, FL 32344

ORGANIZATION:

COMMENTS: Please keep the health of the Apalachee Bay in mind before you dig in the Apalachicola River basin. The life of the oysters and other sealife, not to mention the water quality of the gulf is very important to our area

White, Alan

Page 1 of 7

Judge Alan J. White (Ret.)
Helene* B. *White
260 Club Ridge Drive
Marietta, GA 30068-4801
Phone: (770) 971-8780

October 31, 2012

Colonel Steven J. Roemhildt
District Engineer and Commanding Officer
U.S. Army Corps of Engineers
Mobile District
109 St. Joseph Street
Mobile, AL 36602

Sir:

I understand that the Corps of Engineers currently is resuming its long-delayed update of its Master Water Control Manual for the Apalachicola-Chattahoochee-Flint (ACF) Basin now that the Supreme Court has denied the Petitions for Writs of Certiorari to review the Circuit Court Decision concerning Atlanta's water supply. So, I will contribute my two cents.

I will begin by enclosing a copy of my letter dated August 4, 2009, to the Editor of The Atlanta Journal-Constitution that was published almost completely, except for my credentials, which said in effect that Judge Magnuson's decision depriving Atlanta of water from Lake Lanier was essentially wrong and should be appealed. I am enclosing the copy for the portion stating my credentials. A letter to a different Editor predicting that the Supreme Court would deny the Petitions for Writs of Certiorari to review the Circuit Court decision that overturned Judge Magnuson's decision, was not published.

As you are aware, the geographic boundaries of the ACF Basin are finite, and the amount of water it can provide is determined by the quantity and timing of the rainfall over the area. Domestic consumption understandably is the Corps' highest priority use of water, and since the population of the basin is expected to continue to grow into the future, that growth will bring increased domestic consumption as well as an increased agricultural and industrial use for the water.

For the foreseeable present, the Master Water Control Manual can only manage the water in the basin. Construction of reservoirs to release water when it is needed will benefit management of the water supply, but construction of reservoirs to provide shoreline for landowners will provide little, if any, benefit for management. Aquifers might be found or constructed to benefit management. But in the end, our increasing

White, Alan

Page 2 of 7

demands upon the water supply will require an infusion of water from outside the basin and, consequently, the Manual must contain provisions that will look toward that point, and plan accordingly.

As my letter dated August 4, 2009, states, I have read that the Corps has said that the Tennessee River can provide more water than Atlanta needs now and for the future. In the past, I have proposed to others a project that would pump water from the Tennessee River into Carters Lake in northwest Georgia, which would serve as a staging area (1) to release water into the Coosa River, and (2) to convey water to Lake Lanier using the siphon principle at least part of the way. I realized that such a project would be extraordinarily expensive, and as we drifted through the recession that began in 2008 I began to think about a far less expensive project, having leaned during my past work that the Corps has migrated water from one river basin to another. And I have come up with a scheme that would migrate water from the Tennessee River Basin, across and through the Alabama-Coosa-Tallapoosa River Basin, and into the ACF Basin.

My migration scheme would start at the southernmost part of the Tennessee River in Alabama, a withdrawal from Guntersville Lake at an elevation of 595 feet. The water would move through a canal or pipe into Weiss Lake on the Coosa River at an elevation of 564 feet, through Weiss Lake, and then probably by pipe until it is pumped up and into the Tallapoosa River in the vicinity of Tallapoosa, Georgia, at an elevation of 1,138 feet. From there, the water would flow down the Tallapoosa River into Harris Lake at an elevation of 793 feet, and through Harris Lake. It would continue to flow down the Tallapoosa River until the river approaches the elevation of West Point Lake on the Chattahoochee River, 625 feet, at which elevation the water would be migrated by canal or pipe into an arm of West Point Lake.

When implemented, my scheme would allow the Corps to manage the Chattahoochee watershed solely for the benefit of Atlanta and other communities down to West Point Lake, and migrate enough water into the Chattahoochee Basin to serve the entire needs of the basin below West Point Lake. I believe that it would enable a substantial part of the ACF Basin, if not the entire basin, to grow and prosper, as the Erie Canal allowed New York City to grow and prosper, and under a changed name still allows the city to prosper. While the Erie Canal completed a water highway for commerce between the middle United States and New York City, my scheme would provide the southeastern United States with an abundance of water for living and work, as well as for commerce. If the Corps can connect the Tennessee River with Mobile Bay, as it did with the Tennessee Tombigbee Waterway Project, it can connect the Tennessee River with the ACF Basin.

I am aware that federal legislation and financing would be required, as well as modifications to the Alabama-Coosa-Tallapoosa River Basin Compact. But if the Corps looks at my scheme and approves it as a factually and financially feasible way to solve the problem of our growing demands upon the relatively finite quantity of water the ACF basin can provide, that would be a major step toward bringing my scheme into fruition.

White, Alan

Page 3 of 7

Sincerely,

Alan J. White

P.S. And should Atlanta eventually require more water than Lake Lanier can provide, my scheme would provide an infrastructure to migrate Tennessee River water from Weiss Lake and pump it into Lake Allatoona (elevation, 840 feet) and beyond into both the Chattahoochee and Flint rivers.

cc: Sally Bethea
Chattahoochee Riverkeeper
615 Oak Street, Suite 1000
Gainesville, GA 30504

Apalachicola Riverkeeper
P.O. Box 8
232-B Water Street
Apalachicola, FL 32320

Gordon Rogers
Flint Riverkeeper
The Pace Building
211 N. Jefferson Street, Suite 8
Albany, GA 31701

Georgia Water Coalition
c/o April Ingle
Georgia River Network
126 S. Milledge Avenue, Suite E3
Athens, GA 30605

Cindy Lowry, Executive Director
Alabama Rivers Alliance
2027 2nd Avenue North, Suite A
Birmingham, AL 35203

Brian Atkins, Division Director
Alabama Office of Water Resources
401 Adams Avenue
P.O. Box 5690
Montgomery, AL 36130-5690

I am too old to expect to see even the first step toward the migration of Tennessee River water into the ACF Basin. Consequently, I am passing my thoughts to others -- younger people who may nurture and tinker with my scheme should they see merit when the need arises. These letters may be copied and sent to others, people believed to be interested in the ACF Basin.

White, Alan

Page 4 of 7

Judge Alan J. White (Ret.)
Helene* B. *White
260 Club Ridge Drive
Marietta, GA 30068-4801
770-971-8780

August 4, 2009

Julia Wallace, Editor
The Atlanta Journal-Constitution
72 Marietta Street
Atlanta, GA 30303

Re: Atlanta's Water Woes

Dear Ms. Wallace:

I'm tired of the misinformation I read in the AJC about Atlanta's water woes. The politics are horribly uninformed, and the journalism is even worse because neither the politicians nor the journalists have bothered to enlighten themselves as to Atlanta's *legal* water entitlements.

Let me begin by explaining that water law in the east and water law in the west are completely different.

Eastern water law, which includes the law of the original states, is derived from the English common law and may be characterized as a law of riparian rights. Briefly, as in the United Kingdom, it is based on waterways that flow throughout the year. Owners of land through which, and adjacent to which, water flows, have the right to use the water for virtually any purpose. But they are obligated to receive the flows from above, and are also obligated to permit the flows to continue below. However, they can delay the flows by storing the water temporarily (I.e., Lake Lanier), but, as indicated, they must permit the flows to continue below. Lastly, these rights and obligations pass to subsequent owners of the [and.

Western water law may be characterized as a law of prior appropriation and is generally applicable to areas that were once owned by the United States. It is derived from the fact many waterways obtain their flows from the melt of Winter snows and dry up when the melt is gone. Because of federal laws in the 1800s, water rights were separated from the title to lands owned by the United States and, therefore, no water rights pass to subsequent owners of those lands.

Briefly, many years ago a person or entity would appropriate a quantity of water from a waterway for a specified purpose. The first person or entity to do so, would have a right to use the first quantity of seasonal water for that purpose, the second

White, Alan

Page 5 of 7

person or entity, to the second quantity, and so on. If the person or entity with a prior appropriation does not use the appropriation, or for the specified purpose, the second appropriator would become senior, at least for a given season.

The many nuances of both eastern and western water law are beyond my present scope, which is simply to identify some of the basics of each. But since eastern and western water law are so different from one another, and since western water rights largely reflect the Land Laws of the United states as such laws existed on the respective admission dates of the states, I cannot foresee that there can be a national water policy, as our governor would like.

The recent decision concerning Lake Lanier is both correct and incorrect. It is correct insofar as it deprives Atlanta of the benefits of the storage at Lake Lanier because Atlanta did not contribute to the construction of the development. But it is incorrect insofar as it deprives Atlanta of the quantity of Chattahoochee water it was withdrawing when the development was being planned. Atlanta is entitled to that much water under eastern water law, and the matter of interfacing that entitlement with the existing storage benefit of Lake Lanier is properly a matter for the politicians rather than the courts.

The judge is from Minnesota, a state that was once owned by the United States as part of the Louisiana Purchase. Apparently, his rationale paralleled the western law of prior appropriation in which the appropriator of a quantity of water has the right to build a dam on the appropriator's land to store the seasonal water until it is used for the appropriated purpose; and, because Atlanta did not contribute to the development, Atlanta is not entitled to a share of the water.

I don't know what was placed into evidence and have not read the decision, but do not need to because I may well have crafted something similar. I believe that an enlightened federal judge realized that the question of interfacing Atlanta's right to its pre-Lanier withdrawals from the Chattahoochee with Lanier's storage benefits is not a legal issue, but one for the politicians. Consequently, he crafted an opinion that was sure to be appealed (and it should be), while the politicians hammer out a resolution within the likely time frame of the anticipated appeal.

Atlanta's pre-Lanier withdraws from the Chattahoochee are insufficient for today's needs, and for the future. The supply provided by Lake Lanier is relatively finite, and additional local storage developments would likely be subject to the same weather conditions as Lake Lanier. Consequently, I believe that Atlanta's quest for water supplies to supplement its withdrawals from the Chattahoochee, and for the future, should look primarily beyond areas subject to local weather conditions. The Biblical story of Joseph's dream counseled the Pharaoh to save during the seven years of plenty for the seven years of famine, as we should be counseled to prepare immediately for Atlanta's next period of drought.

Mayor Hartsfield led Atlanta out of the Great Depression and unwisely, it now appears, declined to burden the taxpayers with the cost of contributing to the Lake Lanier development. We cannot afford to repeat the same error by failing to pay for our present and future water needs. The politicians obviously will have field days trying to pass the cost to others, but in the end it is we, the consumers, who will have to pay as taxpayers for the water we need.

White, Alan

Page 6 of 7

From what I have read, the Corps of Engineers has said that the Tennessee River can provide more water than Atlanta needs now and for the future. If California can transport water from its north to its south, Georgia can do so over a shorter distance through less difficult terrain, and the consent of only the federal government would be necessary if the water is withdrawn from Lake Nickajack on the Tennessee, which development abuts Georgia. Otherwise, a political deal will have to be worked out to cross lands of Tennessee or Alabama, depending upon the point of withdrawal, as to which Georgia politicians might attempt to cause Tennessee and Alabama politicians to compete with one another to become our supplier.

As for my credentials, I studied law at the Wake Forest College (now University) School of Law where I was taught eastern water law and earned a JD cum laude. And I was employed for nineteen years by the Federal Power Commission/Federal Energy Regulatory Commission where I authored for the Commission numerous important hydroelectric decisions that required application of both eastern and western water law. Consequently, I read numerous legal decisions pertaining to western water law and, in effect, created my own law course on the subject.

The decisions I authored were almost always appealed to the United States Courts of Appeal, and their track record over the years resulted in not more than ten reversals. My most important hydroelectric decision pertaining to the Escondido Project involved western water law and, after being overturned in part by a Court of Appeals, was affirmed by the Supreme Court on every legal issue except one, a complex issue left open by Congress in 1930 that the Supreme Court was unable to overturn and, therefore, resolved the issue by resorting to a sometimes used practice that is considered verboten to the courts -- the Court created (i.e., legislated) a procedure for resolving the issue, and remanded my decision for such a resolution. Additionally, I have the distinction of having authored a decision that was affirmed by a Court of Appeals, and having authored another decision reaching the opposite result on the same issue after the political majority of the Commission changed, which was also affirmed by another Court of Appeals.

It is my hope that you will publish this letter in the AJC for the benefit of the public, the politicians, the journalists, and the lawyers who will appeal the recent decision, and if you do not publish this letter, that you will send copies to pertinent individuals for their guidance.

Sincerely,

Alan J. White

P.S. I hereby withhold permission to edit this letter without first submitting your editorial changes to me for my prior approval, as I am trying to simplify complex interrelated issues and do not want you to get them wrong unknowingly.

Too many years have passed, and I am too old to recall, the citation of the

White, Alan

Page 7 of 7

Supreme Court decision in question. I+ was the first contested relicensing decision in the history of the Commission, and since licenses under the Federal Power Act of 1920 are issued for periods of 50 years, the initial license expired in the early 1970s and the decision I authored reached the Supreme Court in the mid to late1970s. The facts and law had both changed over the 50 years of the initial license, and the exhibits before me occupied a space more than twenty feet standing in book fashion. Involved was a small hydroelectric project in southern California that diverted water from the San Luis Rey River and transported it through rugged terrain by gravity, including the use of a fascinating (to me) siphon effect. I visited the project, which contributed to my knowledge of the transportation of water over distances.

Whitehouse, Alan

Page 1 of 1

From: Alan Whitehouse <tropicalbluewave@yahoo.com>
Sent: Tuesday, October 16, 2012 12:54 PM
To: ACF-WCM
Subject: Comments on ACF Master Control Manual

I don't think it can be any clearer that th Apalachicola Bay is dying. I know it is the people with the most money that write the laws, but I just think it is a shame that we can only stand by and watch it die.

Alan Whitehouse
Wacissa, Florida

1

Whittall, Lloyd

Page 1 of 1

1/14/2013

COMMENTER: Lloyd Whittall
210 Cheltenham Walk
Alpharetta, GA 30004

ORGANIZATION:

COMMENTS: We concur with the Lake Lanier Association's comments which are as follows:

- The 5,000 cfs minimum flow required at the state line is not representative of the true lowest historical flows in the ACF and is not sustainable.

- Lanier was never designed to support ALL downstream demands and can't be expected to because the dams originally proposed on the Flint River were never built.

- The Corps' current operating rules require more water to be released from Lanier than is necessary and do not allow as much to be stored as is possible. These draw the lake down more than necessary and make it less likely to refill to full pool under contemporary climatic conditions.

- The Endangered Species Act does not require the Corps to augment Apalachicola River flows above run-of-river levels and the practice should not be required because it depletes Lanier unnecessarily.

- Regular navigation is no longer feasible on the ACF and the Corps should not try to support it in view of the other demands on Lanier as a resource of last resort.

Wilson, Jessica

Page 1 of 2

12/14/12

Tetra Tech
Attention: ACF-WCM
61 St. Joseph Street
Suite 550
Mobile, AL 36602-3521

Scoping Comments for ACF Water Control Manual

I submit the following comments in the recently reopened public scoping period:

1) **There is a definitive need for additional storage in the ACF Basin; and that storage is readily and safely available in West Point Lake. Recent studies submitted to the USACE demonstrate that West Point Lake (WPL) can be maintained at a minimum 632.5 MSL year round; and if managed differently, the risk of downstream flooding during major rain events can actually be reduced! The trifecta is there to be won: Increased storage + Better management = Reduced flooding!**

2) **WPL is specifically authorized by Congress for Recreation and Sport Fishing/Wildlife Development in addition to Flood Control, Navigation, and Hydropower. Flood Control can be improved as outlined in the Operations Study referred to in #1 above and which study has been previously submitted to the USACE. Hydropower and Navigation both benefit from the availability of increased storage. The USACE must deliver and honor the Recreation and Sport Fishing/Wildlife Development Authorizations stipulated under law by Congress.**

3) **In order to accomplish #1 and #2 above, the Rule Curve needs to be adjusted upward to a minimum 632.5 MSL and the Action Zones need to be modified upward as well to a minimum 630.0 at the bottom of Action Zone 4. The parameters of 632.5 and 630.0 MSL are significant because they represent the initial and second recreation impact levels respectively as defined by the USACE.**

Wilson, Jessica

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2.

4) **The economic damages to the WPL communities and the lack of economic development due to unnecessarily low and undependable lake levels need to be assessed and stopped. Small businesses have gone bankrupt and others have been stretched to keep their doors open. Major fishing tournaments have been cancelled damaging hotels, restaurants, marinas, and lake related businesses. Visitation is down and campgrounds have been closed. Land specifically set aside for a hotel, conference center, golf course, etc. has never been developed. We are blessed with a moderate climate and WPL should be managed as a 52 week a year lake with the corresponding benefit of a 52 week a year lake related economy! WPL needs a dependable and reliable lake level to provide for economic development and stop the economic harm.**

5) **Environmental harm to WPL needs to be documented. Due to wildly vacillating lake levels, the fish spawn has suffered significantly in 3 of the last 5 years and the quality of the fishery, specifically the bass and crappie, has declined. Thousands, if not hundreds of thousands of mussels have been killed threatening water quality; erosion has increased the cost of water treatment; and siltation continues to eliminate valuable storage.**

6) **USFWS needs to be challenged to provide their science and document the need for 5,000 cfs for endangered species. Why 5,000 cfs? Why not 2,000 cfs? How many of each endangered species are there? Do they exist in deeper water than previously thought? What is the Recovery Plan? Are they still endangered, threatened, or neither? Can they be relocated to other areas where water is more plentiful and the economic damages are less. Who is looking out for the welfare of the small businessman? Common sense would seem to dictate that the needs of man should be balanced with the needs of the critters. The RIOP needs close analysis as part of the EIS to see what changes can be made to avoid destroying the economic, environmental, and recreational value of WPL during all times other than "extreme" drought!**

I thank you for the opportunity to comment and ask that the above issues be submitted and studied during the EIS period.

Sincerely,

Jessica L. Wilson

Wissinger, Gordon

Page 1 of 12

United States Department of the Interior

NATIONAL PARK SERVICE
Southeast Regional Office
Atlanta Federal Center
1924 Building
100 Alabama St., SW.
Atlanta, Georgia 30303

IN REPLY REFER TO:
ER-12/0756

JAN 14 2013

Colonel Steven J. Roemhildt
Commander, Mobile District
U.S. Army Corps of Engineers
P.O. Box 2288
Mobile, Alabama 36628-0001

Dear Colonel Roemhildt:

In accordance with the Notice of Intent (NOI) published in the Federal Register on October 12, 2012, the National Park Service (NPS) formally submits comments and requests participation as a cooperating agency in developing the Draft Environmental Impact Statement (EIS) for Updating the Water Control Manual (WCM) for the Apalachicola-Chattahoochee-Flint (ACF) River Basin, for all phases of the study which have the potential to affect the Chattahoochee River National Recreation Area (CRNRA).

Regulations implementing the procedural provisions of the National Environmental Policy Act of 1969 (NEPA), call for agency cooperation in the NEPA process with the ultimate goal of "…decisions that are based on understanding of environmental consequences, and … actions that protect, restore, and enhance the environment." 40 C.F.R. §1500.1. The regulations specifically define a cooperating agency as "…any Federal agency other than a lead agency which has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal (or a reasonable alternative) for legislation or other major Federal action significantly affecting the quality of the human environment." 40 C.F.R. §1508.5.

The NPS has special expertise regarding the resources and values of the CRNRA and the surrounding areas, which would aid the United States Army Corps of Engineers (USACE) in its environmental impact analysis and ultimate decision regarding the update of the WCM for the ACF River Basin. Specifically, the NPS requests cooperating agency status in developing the Draft EIS and WCM in order to ensure that pertinent NPS mission statements, legislative authorities, and policies are duly considered when developing any alternatives, related management actions, or options that could potentially effect units of the NPS. The NPS' cooperating agency status and level of involvement would not preclude our independent review and comment responsibilities under Section 102(2)(C) of NEPA. Similarly, our being a

Wissinger, Gordon

Page 2 of 12

cooperating agency would not imply that the NPS would necessarily concur with all aspects of the USACE findings.

The NPS and CRNRA would like to submit the following attached preliminary scoping comments on the planned updates to the USACE WCM for the ACF River Basin. The purpose of the WCM updates is to identify operating criteria and guidelines for managing water storage and release of water from USACE reservoirs within the ACF Basin. The scope of the WCM includes Lake Lanier and the operation of Buford Dam, which forms the upper boundary of CRNRA. The attached comments provide relevant background on the CRNRA and highlight specific issues that should be evaluated and considered in the Draft EIS and WCM update. They are intended to supplement comments submitted by NPS during previous scoping periods in 2008 and 2009.

We appreciate your consideration of our comments and this request to become a full cooperating agency and partner in developing the Draft EIS. Should you have any questions, or need additional information concerning this request, please contact Patty Wissinger, Superintendent, Chattahoochee River National Recreation Area, by calling (678) 538-1211.

Sincerely,

for Gordon Wissinger
Acting Regional Director
Southeast Region

Enclosure

Wissinger, Gordon

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National Park Service
Comments

Notice of Intent to Develop a Draft Environmental Impact Statement (EIS) for Updating the Water Control Manual (WCM) for the Apalachicola-Chattahoochee-Flint (ACF) River Basin

January 14, 2013

We welcome the opportunity to cooperate with the United States Army Corps of Engineers (USACE) in preparation of the Draft Environmental Impact Statement (EIS) for Updating the Water Control Manual (WCM) for the Apalachicola-Chattahoochee-Flint (ACF) River Basin.

The National Park Service (NPS) offers the following comments on the subject Notice of Intent:

CRNRA Legislation and Authority

Chattahoochee River National Recreation Area (CRNRA) was established in 1978 when Congress determined that the "natural, scenic, recreation, historic, and other values of a 48-mile segment of the Chattahoochee River … are of special national significance, and that such values should be preserved and protected from developments and uses which would substantially impair or destroy them." CRNRA consists of 48 miles of river and a series of 16 land-based park units located between Buford Dam and Peachtree Creek, just north of Atlanta, Georgia. The park provides over 70% of the public green space in the greater Atlanta area and outdoor recreation activities for over three million visitors per year. The Chattahoochee River forms the backbone of the park, and CRNRA has a vested interest in the operations of Buford Dam, as the timing of water releases and related flows in the river directly impact the ability of park managers to preserve the "natural, scenic, recreation, historic, and other values" of the park, as mandated by Congress.

Congress did not specifically identify the "values of special significance" to be preserved, but the NPS has identified and defined values of special significance within the recreation area, which serve as priorities for management action and protection. The values encompass seven categories of resources, including ecological, cultural and historic, recreational, scenic, geologic, water quality and water quantity (NPS, in draft). Most of these resource categories, including water quantity, ecology, water quality, recreation, geology, and culture and history are directly affected by the operation of Buford Dam. As such, our comments during this scoping period focus on these six categories of resources and highlight specific issues that should be evaluated and considered in the Draft EIS and WCM update.

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Water Quantity

In keeping with its mandates, the NPS seeks to optimize flows below Buford Dam in order to protect and enhance the entire riverine ecosystem. To accomplish this over a broad river system, seasonal and interannual variation, including base flows punctuated by sporadic high and low flow events that mimic the natural (pre-dam) hydrograph, are essential. The United States Fish and Wildlife Service, sister agency to the NPS within the Department of the Interior, will be addressing such broad-scale ecological interests within their comments. Although the NPS strongly supports the broader interests of improving flows within the greater ACF River Basin, our comments specifically address the 48-mile reach of the Chattahoochee River directly downstream of Buford Dam that encompasses the CRNRA.

Historically, the operation of Buford Dam has resulted in river flows with extreme fluctuations in daily and/or hourly flows that represent an extreme deviation from the natural hydrograph. Figures 1-4 depict a typical 7-day hydrograph for each of the four seasons within the last 12 months. Together they demonstrate the extreme fluctuation in daily, and even hourly, flow rates that typify the highly unnatural conditions that exist within CRNRA. While the cold, hypolimnetic releases from Buford offer some benefit to the trout fishery, the extreme fluctuation in flows are arguably a detriment to all species—native or introduced. As such, the primary interests of the NPS with respect to the development of a new Water Control Manual are to seek and evaluate operational alternatives that mitigate the extreme nature of short-term (daily/hourly) flow fluctuations while at the same time ensuring ample minimum flows to maintain water quality, waste assimilation, and improve conditions for aquatic flora and fauna.

Figure 1 – Winter Hydrograph

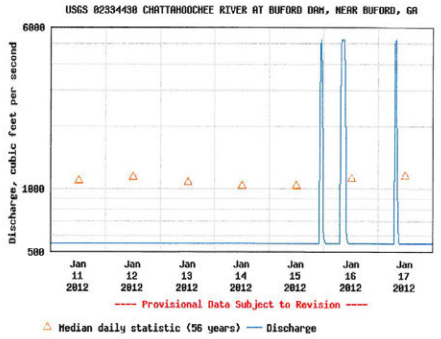

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Figure 2 – Spring Hydrograph

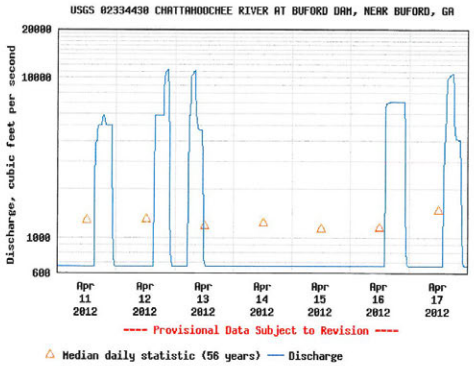

Figure 3 – Summer Hydrograph

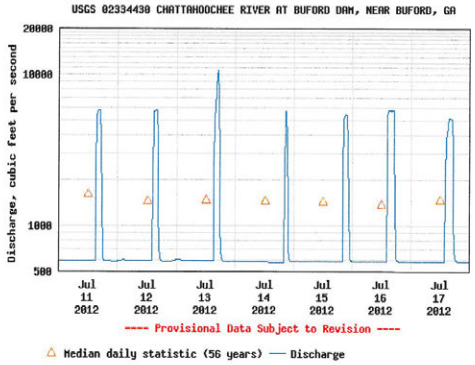

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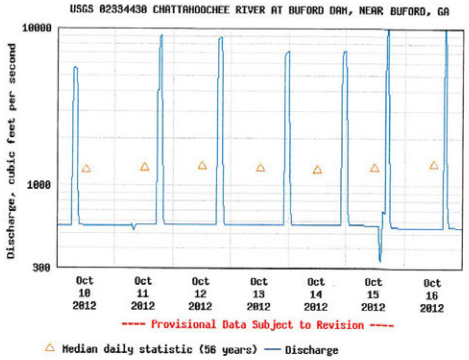
Figure 4 – Fall Hydrograph



In addition to evaluating the operational alternative to mitigate frequent, short-term fluctuations in flow, the NPS would also like the Draft EIS to evaluate operational measures that could be adopted to ensure that increasing incidence of regional drought and/or growing demand for water within the Chattahoochee Basin does not result in unexpected or unavoidable dips in flow within CRNRA. In recent years, historically unprecedented and sometimes dramatic reductions in flow have occurred within the central reach of the CRNRA, most notably in the area upstream of Morgan Falls Dam. It has been documented by CRNRA and the United States Geological Survey (USGS) that flows at the Roswell gage above Morgan Falls Dam have reached extremely low levels (450-500 cfs) periodically over the past few years, even as the 750 cfs minimum flow requirement at Peachtree Creek has been maintained. This suggests that the current minimum flow standard is not protective of the flows required to support recreational uses and ecological needs throughout CRNRA. The NPS recommends that the Draft EIS evaluate the possibility of establishing a flow standard or modeling node within the central reach of the CRNRA (e.g., at the existing Norcross or Roswell gage) to ensure that Buford Dam is operated to maintain sufficient flows throughout the recreation area.

The impacts of lower flows within the central reach of CRNRA are most visible and acute on Bull Sluice Lake, located just upstream of Morgan Falls Dam. Morgan Falls Dam, operated by Georgia Power, serves a key role in re-regulating flow from Buford Dam and other upstream sources to ensure that minimum flows at Peachtree Creek are maintained. However, because neither Buford Dam nor Morgan Falls Dam is geared toward regulating flows between the two facilities, there have been instances in which precipitous drops in water levels have occurred in Bull Sluice. On July 29, 2012, and again on October 18, 2012, gaps in communication and coordination between the USACE and Georgia Power, resulted in extremely low flows and a rapid drop in water levels in Bull Sluice Lake, leaving fish trapped on mud flats and resulting in stranded

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recreational paddlers and lost income for rental companies. These incidents highlight a disconnect between the decision-making framework that guides releases from Buford Dam and the on-the-ground affect those decisions have on flows within CRNRA. Establishing an intermediate flow standard or decision-making/modeling node within the central reach of the park would introduce an additional measure of reliability into the system, potentially improving recreational and ecological conditions in the process.

Ecology

The Chattahoochee River supports a diverse assemblage of species including native fishes, aquatic invertebrates, plants, and semi-aquatic vertebrates such as great blue heron, muskrats, and amphibians, and the EIS should evaluate the impact of various flow alternatives on these species, particularly those most directly affected by river flows. Among the river's notable native species is the shoal bass (*Micropterus cataractae*). A member of the black bass family shoal bass are native only within the Chattahoochee and Flint rivers, their range historically encompassing nearly the entire basin. Today, the species has been reduced to a handful of isolated populations due in large part to the development and operation of dams throughout the basin that have fragmented habitat and altered flows. Because of this modern condition, Sammons and Maceina (2009) suggest that the species is at risk of extinction unless immediate actions are taken to improve flows.

Porta (2006) points out that low water temperatures correlated with releases from Buford Dam have a negative effect on recruitment and survivorship of young shoal bass. Although water temperatures moderate somewhat moving downstream through CRNRA, particularly below Morgan Falls, cold temperatures during the spring and summer spawning period contribute to lackluster recruitment of shoal bass and likely other native species as well. Interannual discharge variability in free flow rivers has been shown to enhance species diversity by favoring one species in one year, a different species the next, and so on, depending on the flow characteristics within a given year. In a regulated system like the Chattahoochee, interannual variability is diminished, further contributing to decline of native species such as shoal bass. The Draft EIS should evaluate opportunities for varying discharges from Buford Dam to support a broad range of species within CRNRA, including shoal bass and other native species.

In addition to native species, the Chattahoochee River immediately below Buford Dam supports an introduced and naturally reproducing population of trout; the southeastern-most population in the United States and a popular recreational resource. A number of scientific studies have examined the effects of varying flow regimes on fish species within rivers. One study on trout reproductive success (Nestler, 1986) was completed by the USACE during an evaluation of a proposed reregulation dam at river mile 342. This report found that rainbow and brown trout habitat was optimal at flows of 1000 - 1500 cfs. A more recent report by Peterson and Craven (2007) stated that "discharge characteristics affected riverine fishes recruitment … during both spawning and rearing periods." During the spring spawning period, the study found that higher discharges (> 3500 cfs) positively influenced reproductive success and concluded that reproductive

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success could be increased if suitable discharges were maintained during critical time periods. However, the report also found that high flow pulses that do not mimic natural seasonal precipitation events have substantial negative influence on fish species, particularly during the summer rearing period. The high velocity of currents created by the pulses of water is detrimental to the survival of juvenile and young of year fishes because of the increased metabolic rate associated with swimming in these currents.

Water Quality

Water releases from Buford Dam play an important role in supporting water quality within CRNRA for a number of parameters, including temperature, dissolved oxygen, bacterial levels, and turbidity. Any alternative contemplating a reduction, even seasonally, of the current mandated minimum flow of 750 cfs at Peachtree Creek should clearly and credibly evaluate the effects on water quality within CRNRA. As noted in background materials provided by the USACE, Buford Dam has historically been managed to release base flows of up to 1500 cfs to meet water supply needs and downstream water quality standards. If dam operations are modified to institute or accommodate lower base flows, water quality within CRNRA would likely deteriorate due to a reduction in the positive influence of clean water released from Buford Dam.

Currently, over half of the 48-mile CRNRA is 303d-listed for not meeting fecal coliform standards under the state designation as a recreational water body. A USGS study in 1995-96 showed that the density of fecal coliform bacteria; the recognized indicator bacteria in Georgia, regularly exceeds the U.S. Environmental Protection Agency guidelines for recreational waters. Because of the large number of people who use the river for water-based recreation and the historically high levels of indicator bacteria in the Chattahoochee River, the USGS, in partnership with several federal, state, and local agencies, began the BacteriALERT monitoring program in October 2000. The BacteriALERT program has now been in operation for more than a decade and has documented widespread variability in water quality within the Chattahoochee River, with bacterial spikes occurring during rain events when the proportion of surface water to dam releases is highest. These results highlight the importance of releases from Buford in maintaining water quality in CRNRA.

Another source of water quality concern is the increasing number and capacity of wastewater treatment plants operating within the boundaries of CRNRA. Three wastewater facilities currently exist and a third (Forsyth County Shakerag WTP) is slated for construction in the near future. The Georgia State Environmental Protection Division has used historic flow regimes to model the river's capacity to assimilate wastewater discharges. If the Draft EIS considers the potential for lower baseline releases, there needs to be a corresponding evaluation of the potential negative effects of wastewater discharges on water quality within CRNRA. Since past studies on the assimilative capacity of the river would be invalidated by changes to the flow regime, the Draft EIS should clearly evaluate water quality impacts due to wastewater discharges.

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A final water quality concern relates to Dissolved Oxygen (DO) levels downstream of Buford Dam. Based on the classification of this segment of the Chattahoochee River as a secondary trout stream, the state water quality standard for DO is a minimum daily average of 6.0 mg/l and an instantaneous minimum of 5.0 mg/l. The Georgia Department of Natural Resources operates a trout hatchery a few miles downstream of the dam and regularly monitors DO levels in the tailrace. They have found that in the fall during periods of low/minimum flows, DO levels have been below 5.0 mg/l for extended periods of time and have fallen and remained below 3.0 mg/l at times. These low levels of DO can negatively impact the health of fish and other aquatic organism, which has secondary impacts on recreational users and local economies. The Draft EIS should analyze the impact of low DO on the recreational and ecological conditions in the upper Chattahoochee River and evaluate operational changes that could elevate seasonal DO levels in the tailwater.

Recreation

CRNRA is a heavily used recreational resource that attracts over 3 million visitors a year; approximately a third of whom engage in some form of water-based recreation, including boating, fishing, canoeing, kayaking, rowing, tubing and swimming. The NPS' principal concern related to recreational use of the river is public safety. Over the past few years, the USACE and NPS have worked closely with other stakeholders to improve the safety of visitors engaged in water-based recreation within the CRNRA. A key component of this effort has been raising awareness of the hazards associated with the release of high flows from Buford Dam. A decrease in documented incidents and accidents in 2012 suggests that this effort may be working, but there will always be opportunities to do more. In light of the overriding importance of public safety, the Draft EIS should address the safety of water-based recreation within CRNRA, including an evaluation of alternatives for modifying dam operations to improve public safety.

Past studies of recreational uses within CRNRA have demonstrated that water-based recreational activities would benefit from moderate and more consistent flows. According to a Recreation Flow Preference Report completed for the NPS (CH2M Hill, 2000), the preferred recreation flows for wade/float fishing, rowing and power boating is between 1,000 to 1,200 cfs. This report further documented that the ideal recreational flow of 1000 – 1200 cfs was available less than 1 percent of the time during the period studied (summer of 1997 and 2000). A USACE report by Nestler (1986) identified optimal canoeing conditions for all user levels as occurring between 1250 cfs – 7000 cfs. Both of these studies provide strong support that higher baseline flows, particularly during the summer recreational season, would enhance the recreational values envisioned by Congress when CRNRA was established.

The NPS has specific concerns related to adequate flows for weekend recreation in the summer, when the park has its greatest number of visitors. Since Buford Dam operations have not historically involved regularly scheduled weekend releases, it will be important for the Draft EIS to evaluate the possibility of supplemental releases to support weekend recreational activities. As noted in the Water Quantity section above, current base flows

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are not always supportive of recreational uses of the Chattahoochee River, and the potential for insufficient flows is increased on the weekends, when hydropower releases aren't regularly scheduled.

Geology

Prior to the construction of Buford Dam, naturally-occurring water level fluctuations within the Chattahoochee River would have been relatively slow and gradual. Conversely, the operation of Buford Dam, as dictated by hydropower generation, results in abrupt and dramatic changes in water levels for short periods of time. Over time, this has resulted in severe bank erosion and collapse, not only along the main stem of the Chattahoochee River, but also within tributary confluences due to backwash effects. The Draft EIS should evaluate the geomorphological impact of frequent but short-term high flow conditions, with particular emphasis on the accelerated erosion of river and tributary banks. It will be important to quantify the expected short-term and long-term loss of stream banks in order to accurately analyze the environmental, social and economic effects of accelerated erosion.

The environmental effects of severe bank undercutting and erosion include increased siltation, which concerns the NPS because it leads to long-term habitat alterations that may negatively impact aquatic species. In particular, the Draft EIS should evaluate the impact of dam operations on organisms that benefit from a gravel or rocky substrate, including trout, shoal bass, mussels, and macroinvertebrates. A USGS research biologist noted the deleterious effect of accumulated silt on shoal bass and their habitat within the Chattahoochee River above Morgan Falls Dam (J. Long, pers. comm.). In addition, increasing sediment in Bull Sluice Lake has created a shallow water body optimal for the growth of exotic aquatic plant species.

The social and economic effects of rapid bank erosion in a highly populated and heavily developed metropolitan area are becoming increasingly apparent. Over the past few years, CRNRA has worked with a growing number of municipalities, businesses, homeowner associations, and individual property owners to stabilize banks along the Chattahoochee River and its tributaries in order to prevent loss of property. In most cases, erosion has progressed over a number of years, then reached a tipping point marked by rapid bank loss and/or threatened infrastructure. The social and economic costs associated with property loss and bank stabilization efforts are an emerging issue in communities along the Chattahoochee River. In evaluating alternatives for the operation of Buford Dam, the EIS should consider the future impacts of bank erosion and the growing cost of measures taken to protect private and public property and facilities.

Culture and History

Cultural and historic resources within CRNRA are similarly impacted by water releases from Buford Dam. The Ivy Mill ruins in Roswell, Georgia date back to the 1830's and are listed on the National Register of Historic Places. Ivy Mill is prone to flooding during protracted high water releases from Buford dam. In addition to Ivy Mill, the NPS

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has documented dozens of archaeological sites within the boundary of CRNRA; many of which occur adjacent to the Chattahoochee River and its tributaries. These archaeological sites are at high risk of damage from accelerated erosion caused by the fluctuating releases from Buford Dam. A number of historic fish weirs within CRNRA are also threatened or lost due to siltation, erosion, and flooding related to the current water regime (Gerdes and Messer, 2007). The Draft EIS should consider the impacts of rapidly fluctuating water levels on archeological and historic sites within CRNRA.

In summary, the national importance of the Chattahoochee River corridor as an ecological, recreational, and historic resource was established through its inclusion into the National Park system. In order to ensure park resources are "preserved and protected from developments and uses which would substantially impair or destroy them," the NPS would like to work cooperatively with the USACE to manage flows within the Chattahoochee River. The preservation of base flows in the Chattahoochee River for ecological and recreational purposes is critical. The NPS would encourage the USACE to evaluate the possibility of establishing a flow standard within the central reach of the park (e.g., at the Norcross or Roswell gage) to ensure that water quality and minimum flows are preserved throughout the recreation area. The USACE should also fully consider potential modifications to the operation of Buford Dam to allow for more gradual increases and decreases in water levels or to mitigate the effects of sudden and dramatic changes in river levels. As the USACE prepares the Draft EIS and updated WCM, the NPS requests that impacts to CRNRA be fully evaluated and considered.

Citations

CH2M Hill. 2000. Recreation Flow Preference Report, Chattahoochee River National Recreation Area. Prepared for the National Park Service, Atlanta, Georgia.

Gerdes, M. and S. Messer. 2007. Chattahoochee River National Recreation Area Historic Resource Study. Prepared for the National Park Service, Atlanta, Georgia.

National Park Service. In draft. Chattahoochee River National Recreation Area Values of Special Significance Workshop Report. U.S. Department of the Interior, Chattahoochee River National Recreation Area, Georgia.

Nestler, J.M., et al. 1986. Effects of flow alterations on trout, angling, and recreation in the Chattahoochee River between Buford Dam and Peachtree Creek. Technical Report E-86-10, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Miss.

Peterson, J.T. and S. W. Craven. 2007. The development of a quantitative decision models for evaluating the effects of river regulation and water use on native fishes in the Chattahoochee River National Recreation Area. Report to the National Park Service, Atlanta, Georgia.

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Porta, M.J.. 2006. Effects of Environmental Variation on Conservation-Stocking Success of an Endemic Black Bass Species in the Chattahoochee River, Georgia. Thesis. Frostburg State University.

Sammons, S.M. and Maceina M.J. 2009. Conservation status of shoal bass in Alabama: distribution, abundance, stocking efficiency, and possible effects of sympatric congeneric black bass in selected tributaries of the Chattahoochee River, Alabama. Alabama Division of Wildlife and Freshwater Fisheries. Montgomery, AL.

Wood, Pearle

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1/14/2013

COMMENTER: Pearle Wood
700 E. Bayshore Dr.
St. George Island, FL 32328

ORGANIZATION:

COMMENTS: Please update the manual in accordance with the best possible results for the Apalachicola River and Bay to stay healthy, including using best schedule practices for the Woodruff Dam, and remembering the water is shared.

Woodard, Cre

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1/12/2013

COMMENTER: Cre Woodard
P.O. Box 21
Empire, MI 39630

ORGANIZATION:

COMMENTS: To protect the River and Bay, citizens can advocate for the scope of the Water Control Management Plan EIS to include:
1. An assessment and consideration of the freshwater needs that will sustain the health of the Apalachicola River and Bay. 2 Increased water release from Woodruff Dam at appropriate timing and duration to sustain Apalachicola River and Bay 3. An ACF basin wide sustainable water management plan that protects the Apalachicola River and Bay and equitably shares the water of this basin.

Wright, Elizabeth

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1/13/2013

COMMENTER: Elizabeth Wright
239 8th Street
Apalachicola, FL 32320

ORGANIZATION:

COMMENTS: As a resident of Apalachicola, FL, wildlife biologist, and former congressional staffer who worked on energy and water development issues, I urge the Corps to include the following within the scope of its revised ACF Master Water Control Management Plan EIS:

1) An quantitative assessment of the downstream flows needed to sustain Apalachicola River and Bay ecosystems in an ecologically healthy condition;

2) Increased water releases from Woodruff Dam of appropriate timing and duration to sustain Apalachicola River and Bay ecosystems, in accordance with said assessment; and

3) Development of an ACF basin-wide sustainable water management plan which protects the ecological integrity of Apalachicola River and Bay, and equitably distributes ACF basin water resources.

The "Last Great Bay" is dying of thirst! This remarkably pristine and productive estuarine ecosystem displays signs of mounting ecological stress due to lack of sufficient freshwater input. Both scientists and lifelong oystermen/women have reported a noticeable increase in abundance of marine predators in the bay resulting from increased salinity, as well as increasing prevalence of a devastating oyster disease (Dermo).

It's quite clear that our previously thriving oyster populations have declined as a result, threatening to topple the entire bay ecosystem by reducing the number of filter-feeders. We've seen this happen in the Chesapeake Bay -- please don't let Apalachicola Bay go the same way!

In addition to oysters, crabs, shrimp, finfish, and other aquatic species, oyster die-off likely will contribute to a long-term decline in populations of a state-listed shorebird species, the American Oystercatcher (FL-threatened). As its name suggests, this species relies heavily on oysters as a food source, and uses exposed bars as places to rest, preen, and escape disturbance -- some even nest on the bars! Many other shorebird species also rely on oyster bars in similar ways. If Apalachicola Bay's oysters continue to die off, multiple species of shorebirds whose populations are already in decline will lose critically important foraging, roosting, and breeding habitats.

And what about the federally-listed (ESA) mussel species found in this area? It seems they're simply being ignored in the Corps' water management decisions. What's happened to Section 7 here is no less than shameful.

Productivity of the bay also is no doubt being adversely affected by a lack of nutrient input from the backswamps upriver because, in the absence of sufficient mainstem flows, these areas have not experienced in several years their typical winter flood cycle. Thus, nutrients produced in the remarkably

Wright, Elizabeth

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large and intact bottomland hardwood forests which buffer the Apalachicola River are not being transported to the Bay. In addition, backswamp tree species such as water tupelo, which need "wet feet" for a portion of the year, are clearly experiencing ecological stress longtime observers say they're dying -- as a result of this lack of seasonal flooding.

The Corps' current water management policies for this basin are rapidly driving Apalachicola River and Bay ecosystems to a tipping point: these ecosystems can still be saved and returned to functional integrity, but the time to act is now! Otherwise, it will be too late.

Without increased freshwater flows, I predict they'll enter a state of irreversible decline like America's other great bays (most notably, the Chesapeake, with which I'm quite familliar). And then we'll spend tens of millions of taxpayer dollars pretending to "save" another bay, when in reality it will no longer be ecologically feasible.

Destruction of Apalachicola River and Bay ecosystems, in turn, will destroy the economy of my county (Franklin Co., FL) and its various municipalities including Apalachicola, Eastpoint, and St. George Island. Our county's economy relies heavily on the seafood industry and tourism (charter fishing, ecotourism, maritime heritage tourism, etc.) associated with our awe-inspiring river and bay. If we lose our world-famous oysters, our hospitality industry will collapse as well.

Also threatened is production of our world-famous tupelo honey, produced by local beekeepers who deliver their hives to the backswamps while the water tupelos are in bloom. Unhealthy tupelos mean less tupelo honey; dead tupelos mean no tupelo honey.

We don't have any large corporations here. All the businesses I mention above are true small businesses, mostly family-owned. Our watermen/women and honey producers learned their trades from the parents, grandparents, and great-grandparents. We produce marketable goods like oysters and honey in truly sustainable ways -- the way they used to do it "back in the day."

Is the Corps really willing to continue threatening the ecological integrity of the Last Great Bay, and the economic health of local communities and their residents who love and rely upon our river and bay?

Like many of this areas newer residents, I moved to Apalachicola because I fell in love with the river and bay at first sight. The Corps seemingly deliberate failure to protect these remarkable natural resources is like a slap in the face to me.

Humans upstream can reduce their water use. Apalachicola River and Bay ecosystems can't. It's as simple as that.

Thank you for considering my comments.

Elizabeth A. Wright
M.S. in Wildlife Ecology and Management
(12 years' field experience working in southeastern bottomland forest and coastal ecosytems)

Wylie, Clarence

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Tetra Tech
Attention: ACF-WCM
61 St. Joseph Street
Suite 550
Mobile, AL 36602-3521

Scoping Comments for ACF Water Control Manual

I submit the following comments in the recently reopened public scoping period:

1) There is a definitive need for additional storage in the ACF Basin; and that storage is readily and safely available in West Point Lake. Recent studies submitted to the USACE demonstrate that West Point Lake (WPL) can be maintained at a minimum 632.5 MSL year round; and if managed differently, the risk of downstream flooding during major rain events can actually be reduced! The trifecta is there to be won: Increased storage + Better management = Reduced flooding!

2) WPL is specifically authorized by Congress for Recreation and Sport Fishing/Wildlife Development in addition to Flood Control, Navigation, and Hydropower. Flood Control can be improved as outlined in the Operations Study referred to in #1 above and which study has been previously submitted to the USACE. Hydropower and Navigation both benefit from the availability of increased storage. The USACE must deliver and honor the Recreation and Sport Fishing/Wildlife Development Authorizations stipulated under law by Congress.

3) In order to accomplish #1 and #2 above, the Rule Curve needs to be adjusted upward to a minimum 632.5 MSL and the Action Zones need to be modified upward as well to a minimum 630.0 at the bottom of Action Zone 4. The parameters of 632.5 and 630.0 MSL are significant because they represent the initial and second recreation impact levels respectively as defined by the USACE.

(3a) WHY SHOULD MORE WATER EVER BE RELEASED FROM WPL (ASSUMING MIN WATER LEVELS) THAN COMES INTO THE BASIN FROM IT'S HEADWATERS?

Wylie, Clarence

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4) The economic damages to the WPL communities and the lack of economic development due to unnecessarily low and undependable lake levels need to be assessed and stopped. Small businesses have gone bankrupt and others have been stretched to keep their doors open. Major fishing tournaments have been cancelled damaging hotels, restaurants, marinas, and lake related businesses. Visitation is down and campgrounds have been closed. Land specifically set aside for a hotel, conference center, golf course, etc. has never been developed. We are blessed with a moderate climate and WPL should be managed as a 52 week a year lake with the corresponding benefit of a 52 week a year lake related economy! WPL needs a dependable and reliable lake level to provide for economic development and stop the economic harm.

5) Environmental harm to WPL needs to be documented. Due to wildly vacillating lake levels, the fish spawn has suffered significantly in 3 of the last 5 years and the quality of the fishery, specifically the bass and crappie, has declined. Thousands, if not hundreds of thousands of mussels have been killed threatening water quality; erosion has increased the cost of water treatment; and siltation continues to eliminate valuable storage.

6) USFWS needs to be challenged to provide their science and document the need for 5,000 cfs for endangered species. Why 5,000 cfs? Why not 2,000 cfs? How many of each endangered species are there? Do they exist in deeper water than previously thought? What is the Recovery Plan? Are they still endangered, threatened, or neither? Can they be relocated to other areas where water is more plentiful and the economic damages are less. Who is looking out for the welfare of the small businessman? Common sense would seem to dictate that the needs of man should be balanced with the needs of the critters. The RIOP needs close analysis as part of the EIS to see what changes can be made to avoid destroying the economic, environmental, and recreational value of WPL during all times other than "extreme" drought!

I thank you for the opportunity to comment and ask that the above issues be submitted and studied during the EIS period.

Sincerely,

Clarence R. Wylie
6 BEAUREGARD COURT
FAYETTEVILLE, GA 30215
PHONE 404-384-9011

ALSO A PROPERTY OWNER ON WEST POINT LAKE

Zelznak, Rick

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1/11/2013

COMMENTER: Rick Zelznak
8794 Megans Lane
Tallahassee, FL 32309

ORGANIZATION:

COMMENTS: As you update your Master Water Control Manual, please ensure the restoration and sustainability of the flow on the Apalachicola River and the impacts on the Bay. Significant negative economic and biological impacts have been experienced along the Apalachicola for years. I hope you take this opportunity to address these impacts by increasing flows above and beyond the minimal amount of 5000 cfs from Woodruff Dam. Thank you for the opportunity to comment.

Zumwalt, Bob

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1/15/2013

COMMENTER: Bob Zumwalt
3615 Lodgehaven Circle
Gainesville, GA 30506

ORGANIZATION: Lake Lanier Association

COMMENTS: If the "endangered species" survived the drought-stricken years, before dams were built on the Chattahoochee, they would have experianced much dryer situations than now. It's obvious that this is all about more recent commercial species.