APPENDIX D PUBLIC SCOPING MEETING MATERIALS

Welcome

The U.S. Army Corps of Engineers (USACE) is currently SCOPING to obtain feedback on **(1)** reallocation of water storage at Allatoona Lake for water supply and **(2)** Water Control Manual (WCM) Updates for the Weiss and Logan Martin Reservoir Projects for flood risk management. Efforts will be combined into an integrated report and Supplemental Environment Impact Statement (SEIS).



The Oostanaula River, flowing through downtown Rome, GA, terminates where it meets the Etowah River (flowing in from the left at the top of the photo).

STEP 1: Please sign in at the information table

STEP 2: Visit displays placed around the room in any order to learn more

STEP 3: Provide comments on the Allatoona Lake water supply storage reallocation study and the updates to the Weiss and Logan Martin reservoir project WCMs by one of the following means:

- Submit comments on comment forms.
- Provide input on posters where specified.
- Provide verbal comments at the court reporter station.
- Email comments to **ACT-ACR@usace.army.mil**.
- Mail comments to the USACE Mobile District Commander.

Comments will be collected through August 15, 2018 for consideration in the next phase of the study process.

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Purpose and Need

Purpose:

- Evaluate the 2018 water supply request from the State of Georgia seeking to reallocate water storage out of Allatoona Lake
- Evaluate proposed revised operations at two Alabama Power Company (APC) projects: Weiss and Logan Martin projects
- Update any Water Control Manuals (WCMs), as necessary, as a result of changes in operations

Need:

- Respond to the State of Georgia's request for water supply by March 1, 2021 pursuant to the Northern District of Georgia's January 9, 2018 Order
- Produce a Feasibility Report* with an Integrated Supplemental Environmental Impact Statement (SEIS) addressing water supply storage and flood operations
- Produce updated project water control manuals as required by regulation
- Produce an updated Memorandum of Agreement for Alabama Power Company Projects

* Though not required to meet all requirements of a cost-shared feasibility study, this study utilizes aspects of the SMART Planning Feasibility Study Process Framework

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Water Control Manuals

What Are Water Control Manuals?

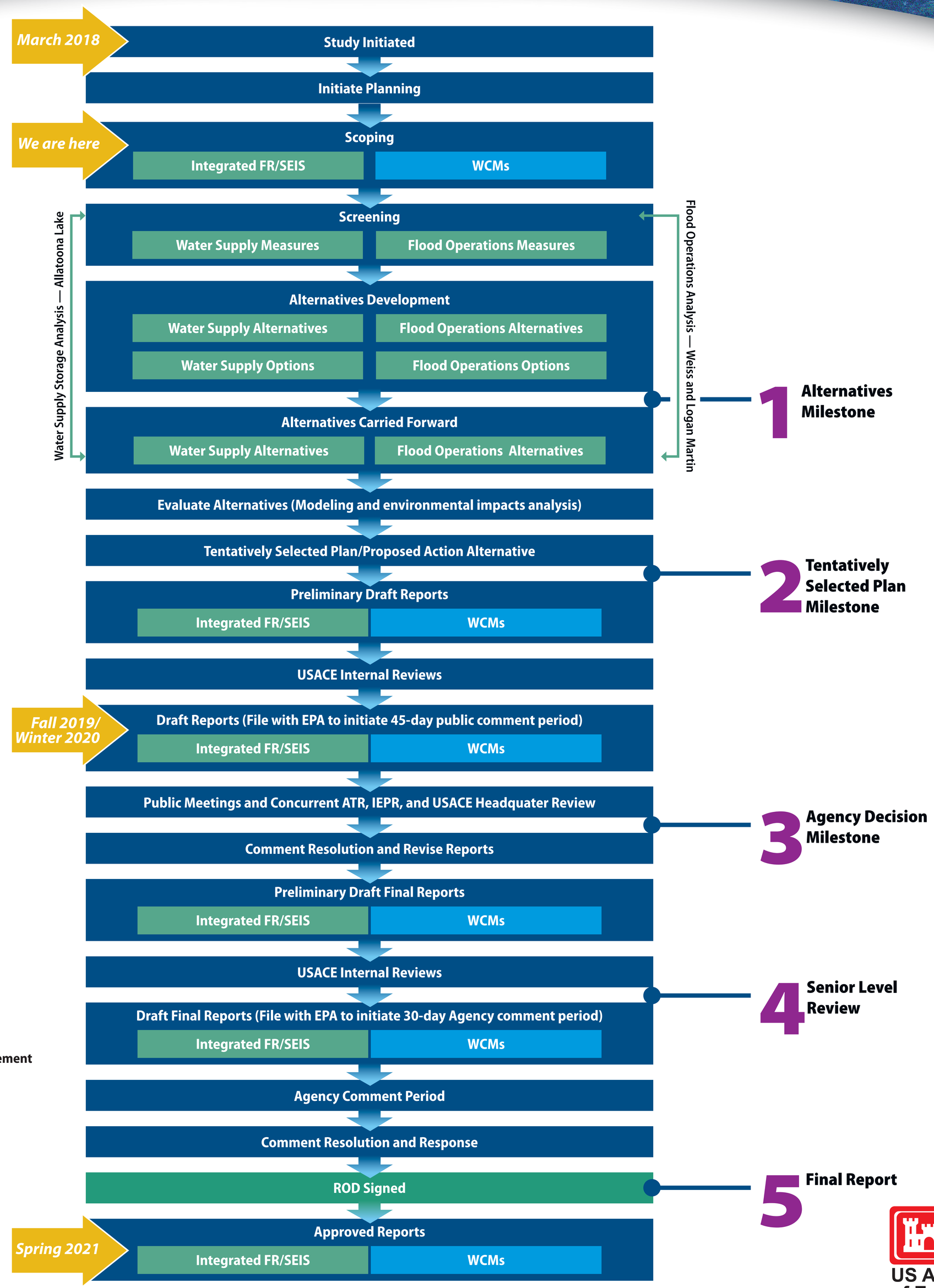
The operations at each federal reservoir managed by the U.S. Army Corps of Engineers (USACE) are described in water control manuals (WCMs). These manuals outline regulation schedules for each project (including operating criteria, guidelines and guide curves for varying conditions) and specifications for storage and releases from the reservoirs. USACE approved the current Master WCM and individual WCMs for the Alabama-Coosa-Tallapoosa (ACT) River Basin, except Weiss and Logan Martin, in May 2015.

Why Are Water Control Manuals Updated/Revised?

- To comply with existing federal laws and regulations and established USACE policy
- To capture:
  - Changes in basin hydrology and consumptive demands
  - Changes made in project operations or downstream of projects
  - Improvements in technology
  - New legislation
  - New environmental requirements

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Study Process and Schedule



Legend:

DMP – Decision Management Plan

FR – Feasibility Report

SEIS – Supplemental Environmental Impact Statement

WCM(s) – Water Control Manual (s)

USACE – U.S. Army Corps of Engineers

ATR – Agency Technical Review

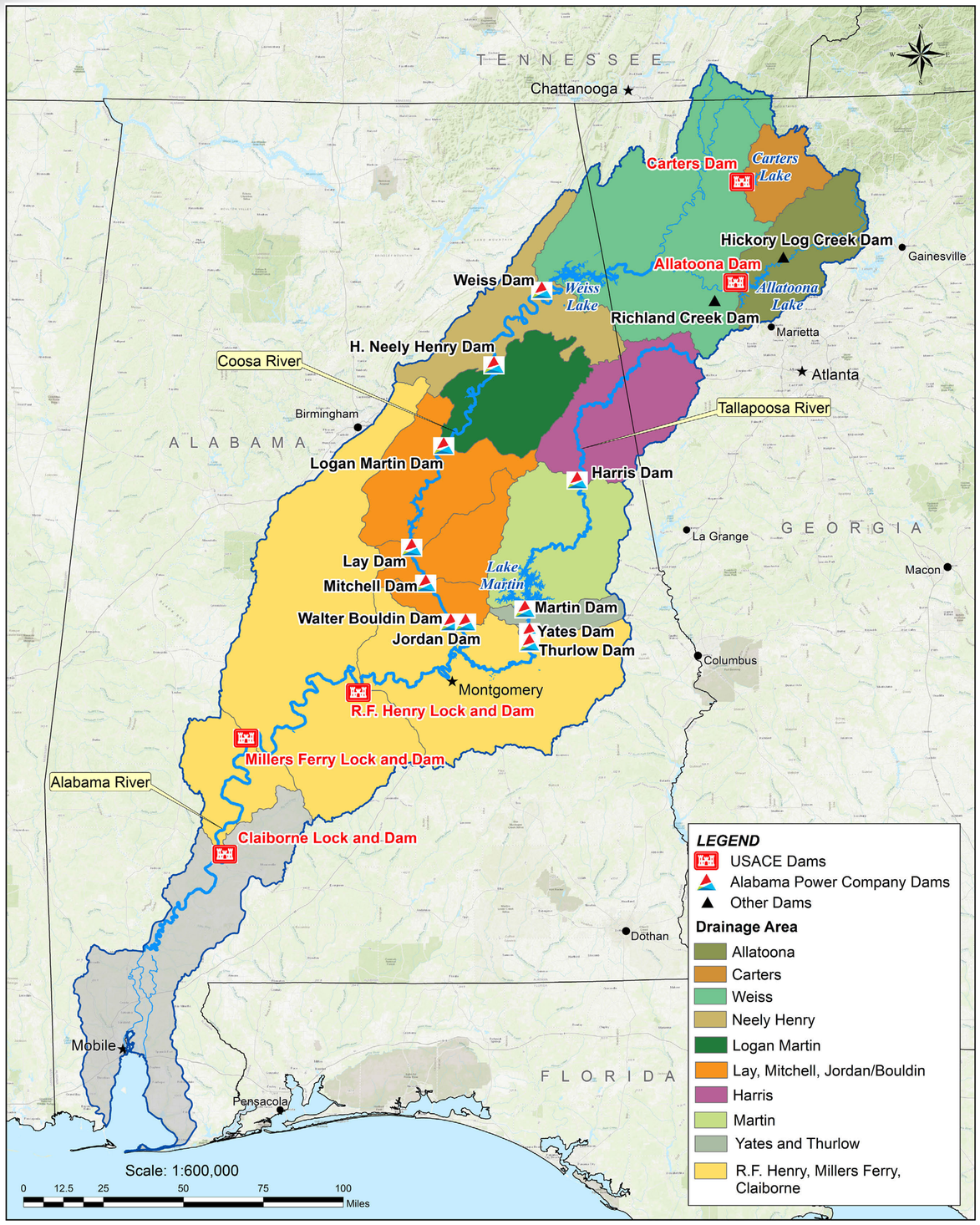
IEPR – Independent External Peer Review

ROD – Record of Decision

EPA – U.S. Environmental Protection Agency

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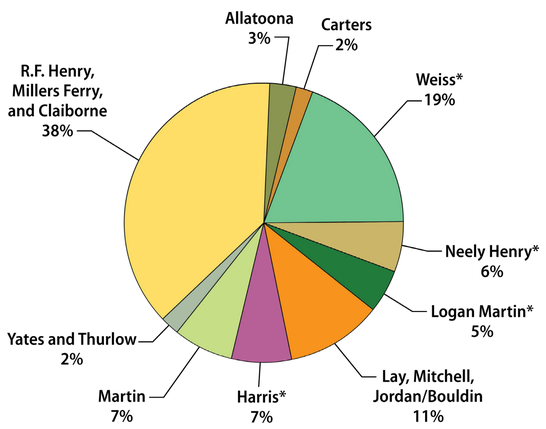
ACT River Basin



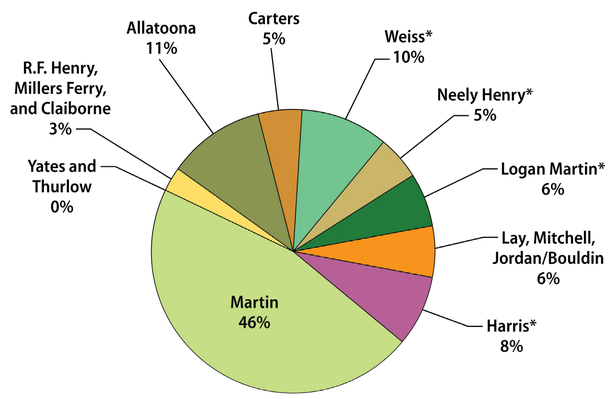
Federally Authorized Purposes	Flood Risk Management	Hydropower	Navigation	Recreation	Water Supply	Water Quality	Fish & Wildlife
USACE Projects							
Carters Dam and Lake	●	●	●	●	●	●	●
Allatoona Dam and Lake	●	●	●	●	●	●	●
Robert F. Henry Lock and Dam/ R.E. "Bob" Woodruff Lake		●	●	●		●	●
Millers Ferry Lock and Dam/ William "Bill" Dannelly Lake		●	●	●		●	●
Claiborne Lock and Dam and Lake			●	●		●	●
Alabama Power Company (APC) Projects *							
Weiss Dam and Lake	●		●				
Logan Martin Dam and Lake	●		●				
H. Neely Henry Dam and Lake	●		●				
Harris Dam and Lake	●		●				

* USACE has oversight of these four Alabama Power Company projects pursuant to Public Law 83-436, approved June 28, 1954.

Drainage Area



Conservation Storage (acre-feet)





Carters Dam



Allatoona Dam



Weiss Dam



Logan Martin Dam



R.F. Henry Lock and Dam



Millers Ferry Lock and Dam



Claiborne Lock and Dam

Water Supply Storage Reallocation Considerations

What is a municipal and industrial (M&I) water supply?

- A water that is provided for consumption by residential, commercial, institutional, and industrial users



Who are M&I water supply users?

- Residential users — single- and multi-family dwellings
- Commercial and industrial users — retailers, restaurants, manufacturing plants, and agricultural plants (processing plants)
- Institutional users — schools, universities, and hospitals
- Other users — public water needs (fire fighting and street cleaning)

What is a water supply storage reallocation study?

- An investigation of various water supply measures to reallocate storage under the authority of the 1958 Water Supply Act
- Addresses a water supply request
- Identifies the most likely- least costly water supply alternative compared to reallocation out of the reservoir
- Provides a tentative recommendation for reallocation in terms of quantity and cost

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SMART Planning Feasibility Study Milestones*

36 Months

Concurrent public, technical, policy, and legal review

Scoping (3–6 months)

Alternative Formulation & Analysis (6–13 months)

Feasibility-Level Analysis (6–13 months)

Final Report (3–4 months)

1 Alternatives Milestone
USACE Vertical Team concurrence on array of alternatives

2 TSP Milestone
USACE Vertical Team concurrence on Tentatively Selected Plan (TSP)

3 Agency Decision Milestone
USACE endorsement of recommended plan

4 Senior Level Review
Release Report for State and Agency Review

5 Final Report
Final Report Approved and Record of Decision signed

SMART planning is:

S: Specific **M**: Measurable **A**: Attainable **R**: Risk Informed **T**: Timely

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*Though not required to meet all requirements, this study utilizes aspects of the SMART Planning Feasibility Study Process Framework

Socioeconomics

Social Effects

Allatoona and Carters projects provide benefits for the surrounding social environment through project purposes such as recreation, navigation, hydropower, municipal and industrial water supply, and flood control.



Carters Lake

Recreation

The Allatoona and Carters projects provide significant benefits through recreational opportunities such as boating, camping, fishing, hunting, picnicking, sightseeing, and waterskiing. The ACT River Basin federal projects had approximately 7.4M project visits in 2016.

Navigation

There are no specific regulation requirements to support navigation at the Allatoona or Carters projects. The seasonal variation in reservoir storage does redistribute downstream flows, however, and other operations at Allatoona provide a benefit to downstream navigation south of Montgomery, Alabama.



Carters Dam

Hydropower

Electricity is generated from the projects during periods of high usage to assist in meeting peak power demands, reducing the cost of power generation, and reducing the need for additional sources of power production. In 2017, the ACT River Basin federal projects (Allatoona was online for a partial year) produced 1.1M mega watt hours representing $50 million in revenue.

Municipal and Industrial Water Supply

- Water storage from Allatoona Lake is allocated for withdrawal for the City of Cartersville, Georgia, and the Cobb County-Marietta Water Authority.
- Water storage from Carters Project is allocated for withdrawal for the City of Chatsworth, Georgia.

Flood Risk Management

A major benefit of the Allatoona and Carters projects is their capacity to store water and later release it in moderate amounts to prevent downstream flooding impacts.

Flood Damages Prevented Downstream from Allatoona and Carters Projects

Year	Allatoona w/Rome	Carters w/Rome
1987	$10,504,000	$0
1990	$58,480,400	$219,100
1991	$1,014,276	$1,037,157
1992	$1,646,639	$1,076,319
1993	$5,063,316	$5,076,316
1994	$878,077	$736,434
1995	$13,554,749	$10,207,062
1996	$148,249,653	$148,161,613
1997	$26,155,013	$26,155,013
1998	$89,575,134	$84,483,008
2003	$1,077,822	$144,401
2004	$11,405,309	$425,559
2009	$8,721	$3,364
2010	$20,330,262	$285,474
2013	$27,195,304	$255,367
2014	$10,794,432	$1,104,165
2015	$4,402,686	$324,055
2016	$16,164,471	$273,497
2017	$540,273	$307,337
Total	**$465,395,428**	**$280,303,526**
Average	**$15,012,756**	**$9,042,049**

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State of Georgia's Updated Water Supply Request



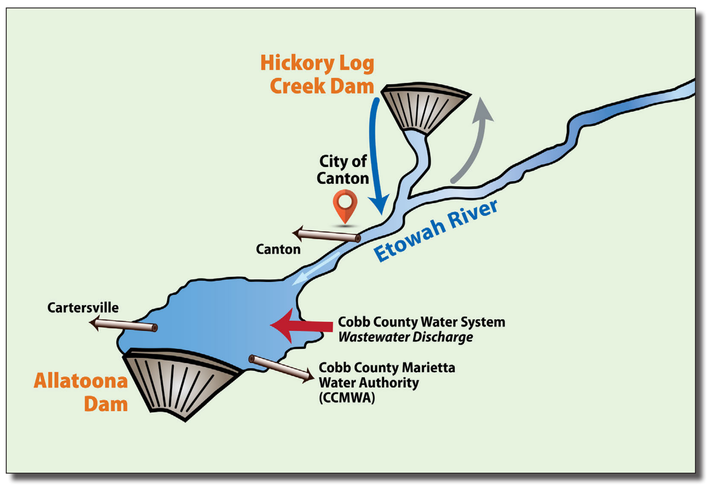
Hickory Log Creek Reservoir



Allatoona Dam

- Received March 30, 2018
- 2050 water supply need from Allatoona Lake is 94 million gallons per day (mgd), including current water supply contract amounts:
  - 57 mgd for Cobb County-Marietta Water Authority
  - 37 mgd for City of Cartersville
- Assumes full credit for Hickory Log Creek Reservoir releases

- Requests that USACE consider:
  - Alternative storage accounting methodology
  - Utilization of pass-through conveyance
  - Providing full credit for return flows



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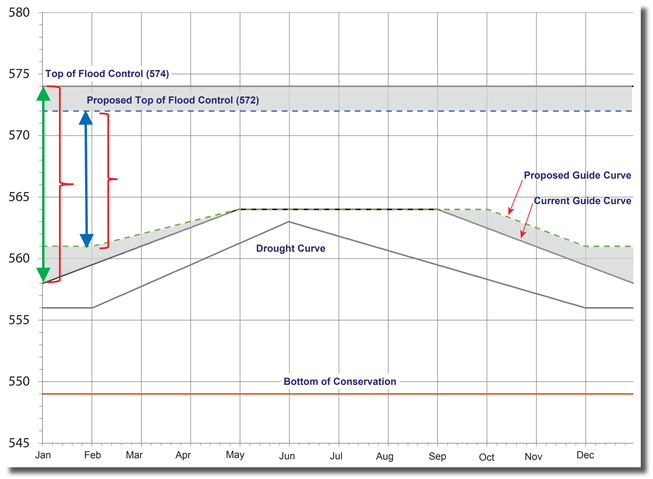
Weiss and Logan Martin Projects

USACE

- Has oversight of four Alabama Power Company projects for the authorized purposes of navigation and flood risk management:
  - Harris Dam (Water Control Manual [WCM] updated in 2015)
  - H. Neely Henry Dam (WCM updated in 2015)
  - Logan Martin Dam (WCM update required)
  - Weiss Dam (WCM update required)

Alabama Power Company

- Proposes to lower top of flood control level at Weiss and Logan Martin projects
- Proposes to raise winter level at Weiss and Logan Martin projects



- Current reservoir easements at Weiss and Logan Martin projects are below the required maximum surcharge elevations

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Preliminary Identified Measures[1]

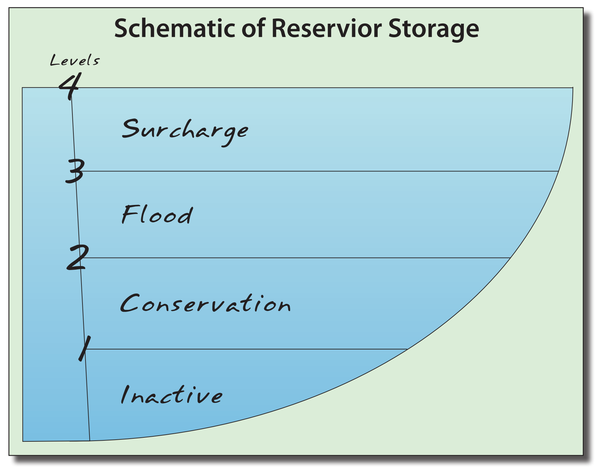
Water Supply at Allatoona Lake

- Conservation
- Groundwater
- Desalination and pumping to service areas
- Other existing surface water sources
- Reallocation from Allatoona Lake flood storage pool
- Reallocation for Allatoona Lake inactive storage
- Reallocation from Allatoona Lake conservation storage
- Hickory Log Creek Reservoir
- Other new reservoir construction

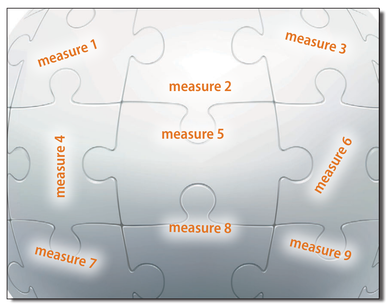
Flood Operations at APC Projects[2]

- Raise winter pool levels
- Lower top of flood pool levels
- Modify induced surcharge operations
- Acquire additional property interests

[2] Only non-structural measures are being considered for Alabama Power Company (APC) projects



Alternative "A"

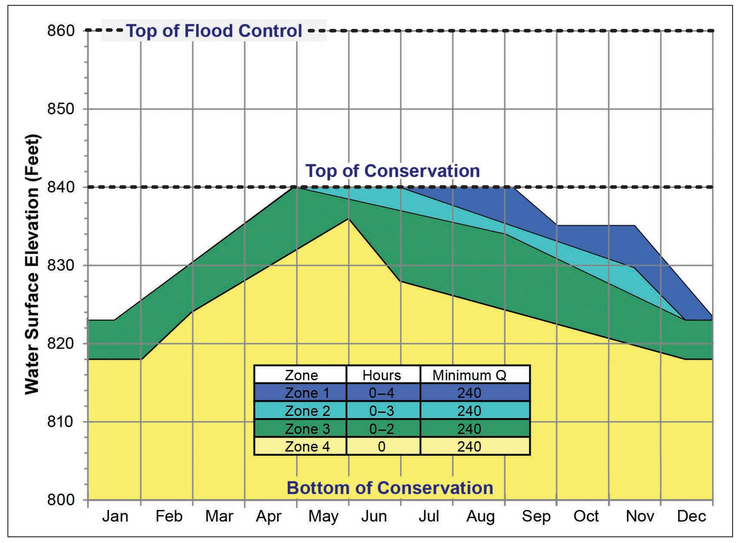


[1] Measure = A solution that addresses a problem; a component of an alternative

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Summary of Current Operations

- **Alabama Power Company (APC):** Projects operate pursuant to the current operations, current approved USACE WCMs at APC projects, and the current approved Alabama, Coosa, Tallapoosa (ACT) River Basin Master Water Control Manual (WCM).
- **Guide Curves:** Operate using existing guide curves, includes Allatoona fall step-down and higher winter level at H. Neely Henry
- **Action Zones:** Operate using existing action zones: Allatoona (Zone 4), Carters (Zone 2)
- **Drought Operations:** Defined drought intensity levels and associated drought triggers, dam releases/flow targets provide for reduced levels of service
- **Navigation:** Seasonal navigation releases to support commercial navigation (9.0-ft or 7.5-ft channel depth), provided sufficient basin inflow above the APC projects is available
- **Minimum Flows:**
  - Allatoona continues to provide for a 240-cubic-feet per second (cfs) minimum flow.
  - Carters
    - Zone 1 – minimum flow releases equal to the seasonal minimum flow based on the mean monthly flow upstream of Carters Lake
    - Zone 2 – minimum flow releases would be 240 cfs
- **Hydropower:** Typical hydropower peaking hours vary by action zone
- **Federal Water Supply:** 19,511 acre-feet allocated to water supply storage agreements
- **Fish & Wildlife:** Seasonal minimum flow when Carters is in Zone 1

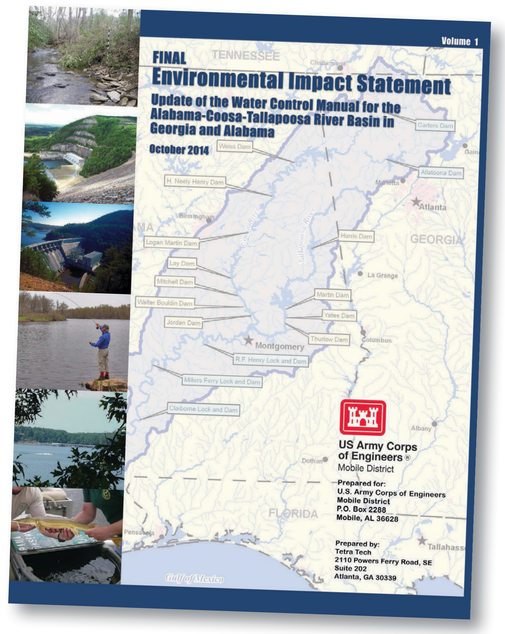


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What is the *Supplemental Environmental Impact Statement?*

The Supplemental Environmental Impact Statement (SEIS) will:

- "Supplement" the existing *Final Environmental Impact Statement (EIS) Update of the Water Control Manual for the Alabama-Coosa-Tallapoosa (ACT) River Basin in Georgia and Alabama* (October 2014)



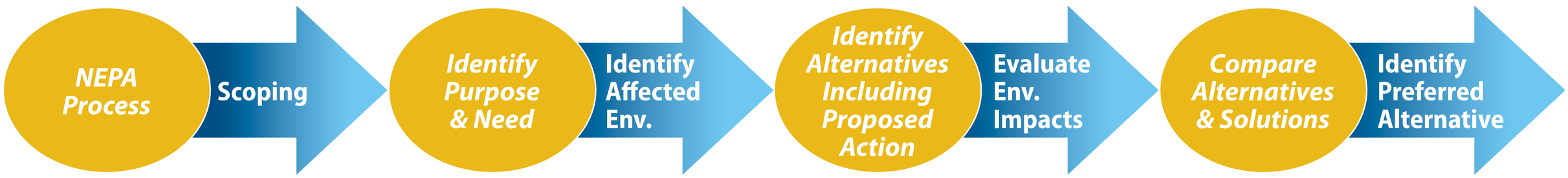
- Consider additional environmental impacts in the natural environment or communities based upon a water supply storage reallocation at Allatoona Lake and a flood operation analysis at Alabama Power Company's Weiss and Logan Martin Reservoirs
- Include an analysis of effects of the proposed action (s) and alternatives on resources such as: natural resources (water, air and wildlife), cultural resources, land use, recreation, aesthetics, and socioeconomic impacts, etc.
- Include a description of the baseline conditions of the affected environment against which effects of the proposed action are evaluated

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Major NEPA Milestones

Opportunities for public involvement in the feasibility study* and integrated SEIS process:

- Public Scoping Meetings (2018)
- Public Review of Draft SEIS (2019)
- State and Agency Review of Final SEIS (2020)



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Environmental Considerations

Authorized Purposes in ACT River Basin

- Fish and Wildlife Conservation
- Flood Risk Management
- Hydropower
- Navigation
- Recreation
- Water Quality
- Water Supply

Water Resources

- Groundwater
- Historical, Present, and Future Water Quantity Needs
- Surface Water Reservoirs
- Water Quality

Natural and Biological Resources

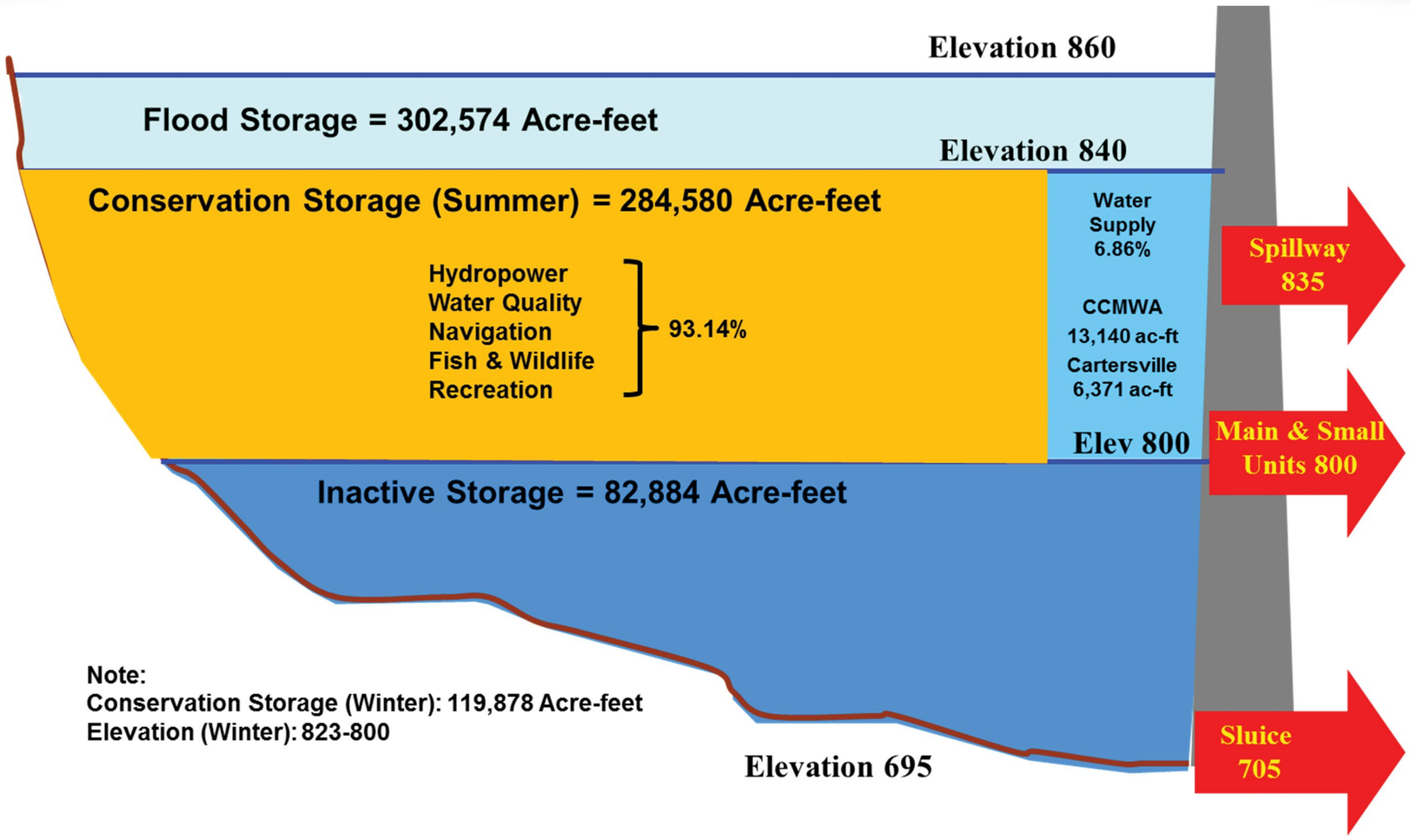
- Air Quality
- Cultural Resources
- Fish and Aquatic Resources
- Land Use
- Terrestrial and Wetland Vegetation
- Threatened & Endangered Species
- Wildlife

Socioeconomic Resources

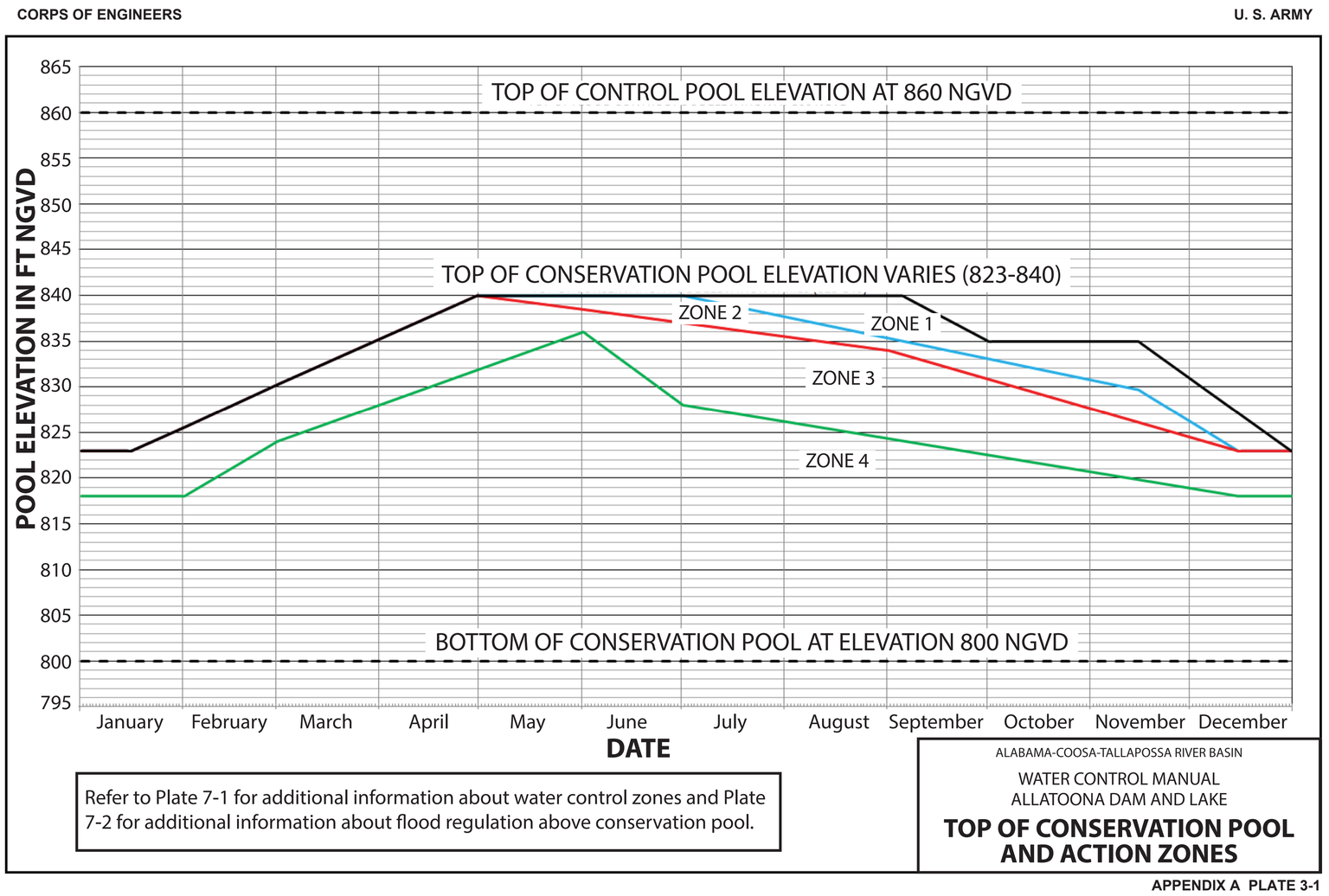
- Environmental Justice and Protection of Children
- Flood Risk Management Concerns
- Population

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Allatoona Lake



Current Storage Allocation



Guide Curve

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ACT Basin Project Overview Map





Allatoona Dam and Lake

- Reservoir with full summer conservation pool at elevation 840 feet msl
- 82.2 megawatt (MW) power plant



Weiss Dam and Lake

- Reservoir with full summer power pool at elevation 564 feet msl
- 87.75 MW power plant



Logan Martin Dam and Lake

- Reservoir with full summer power pool at elevation 465 feet msl
- 128.25 MW power plant

Legend

- Withdrawal
- Pump
- Release
- Wastewater Return

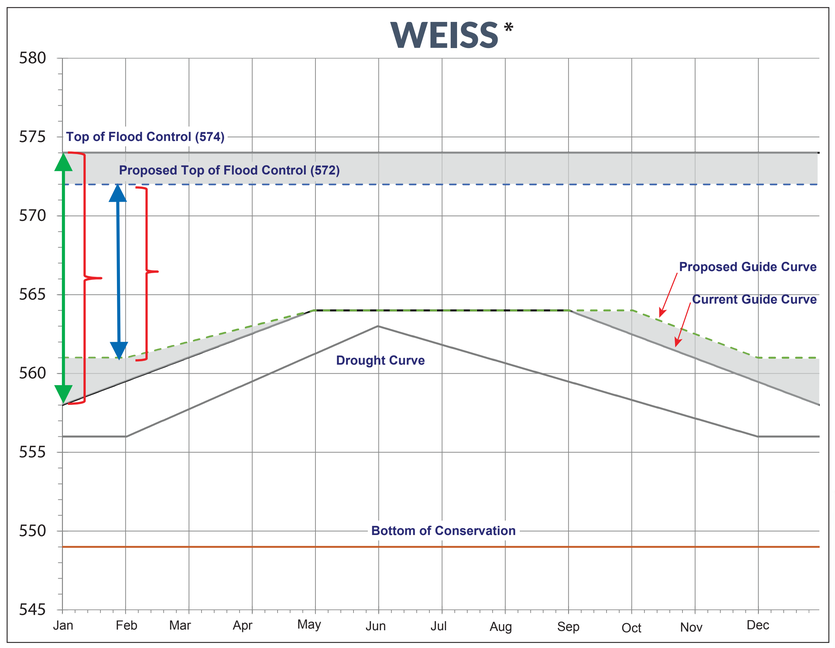
Not to scale

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Alabama Power Company Proposed Changes

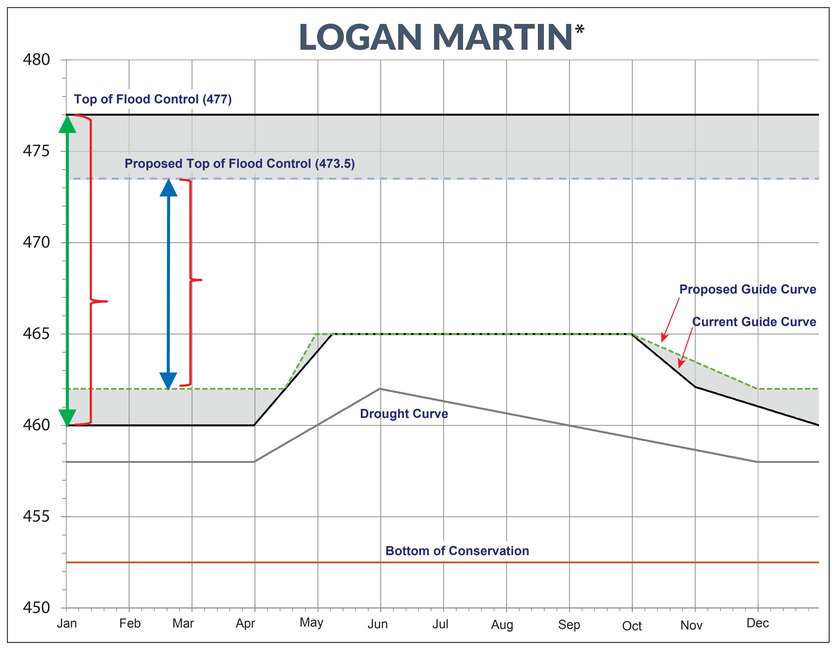
Weiss Proposal

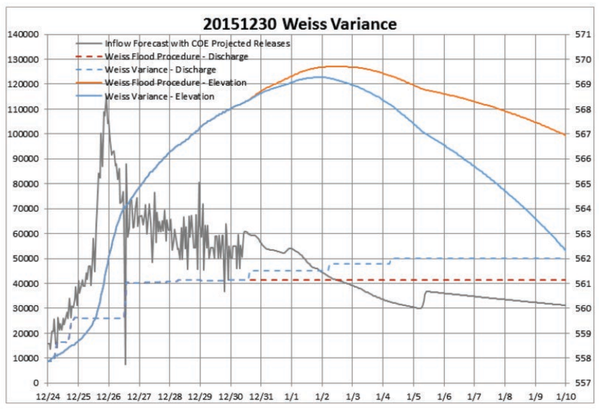
1. Raise Winter Level from **558** to **561**
2. Lower Top of Flood Control from **574** to **572**
3. Results in 30% reduction in Winter Flood Control Storage
4. Results in 24% reduction in Summer Flood Control Storage
5. During Surcharge Operation, Increase releases at same reservoir elevations



Logan Martin Proposal

1. Raise Winter Level from **460** to **462**
2. Lower Top of Flood Control from **477** to **473.5**
3. Results in 35% reduction in Winter Flood Control Storage
4. Results in 35% reduction in Summer Flood Control Storage
5. During Surcharge Operation, Increase releases at same reservoir elevations



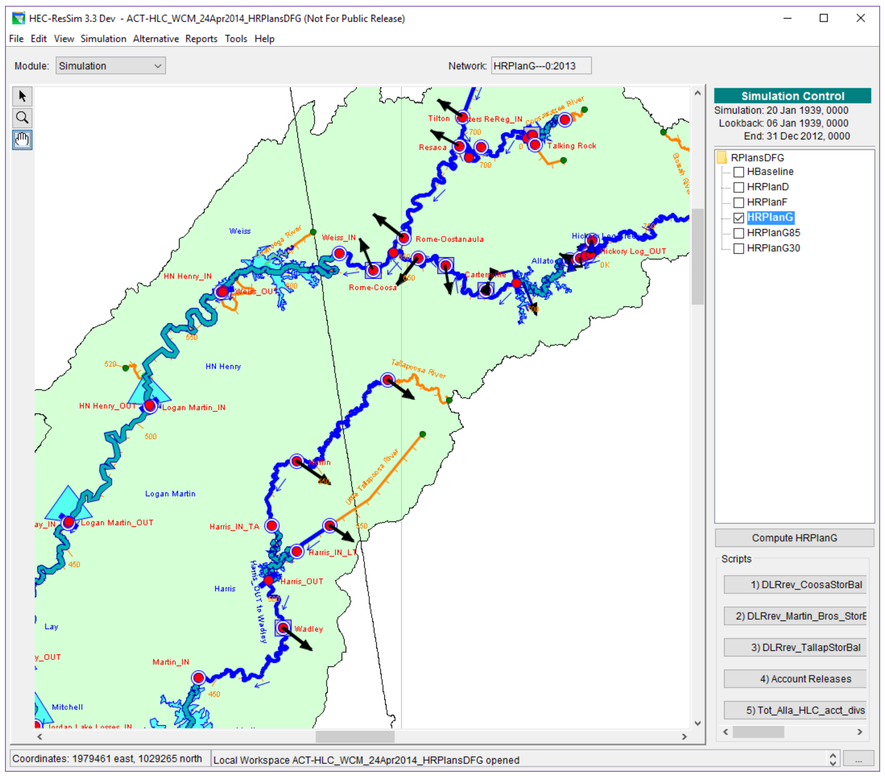


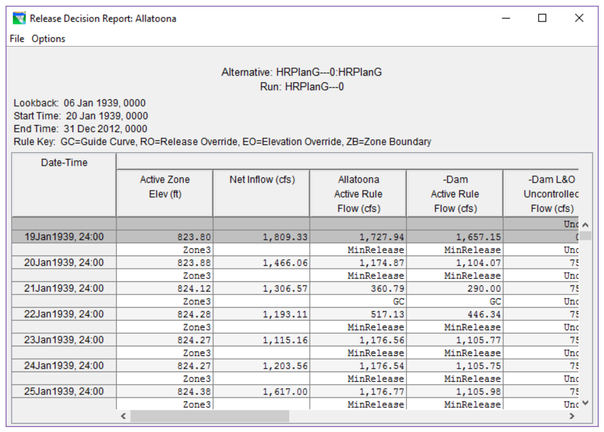
Example

*Shaded areas = Loss in flood storage

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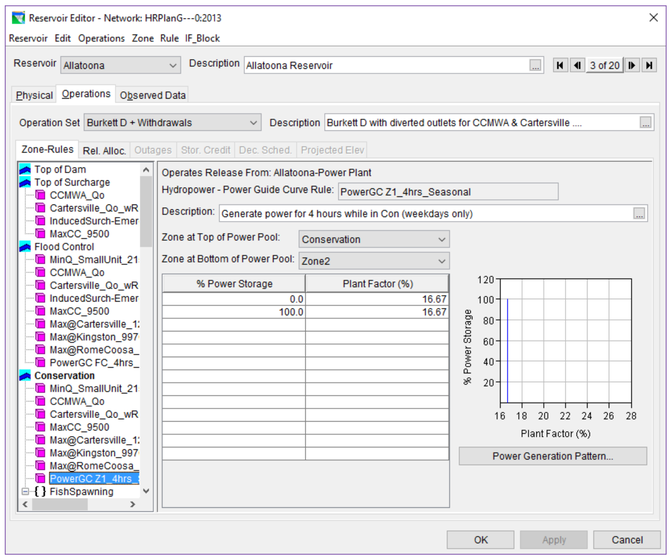
Reservoir System Simulation (HEC-ResSim) Software Developed by the U.S. Army Corps of Engineers

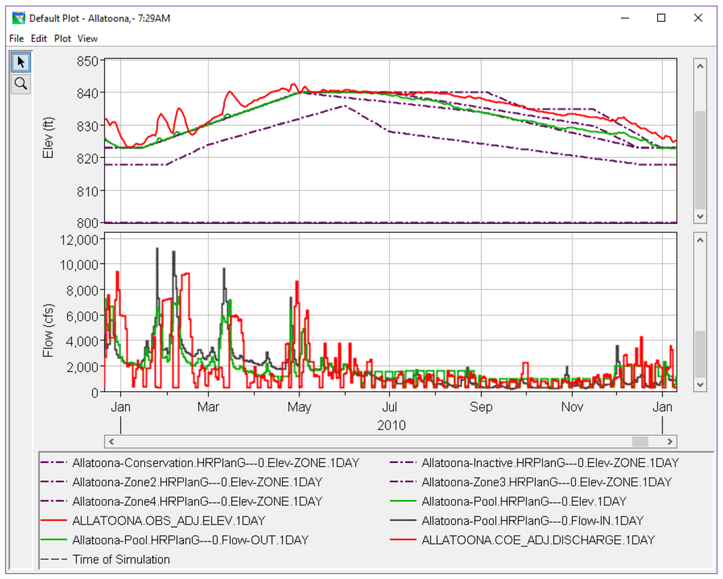


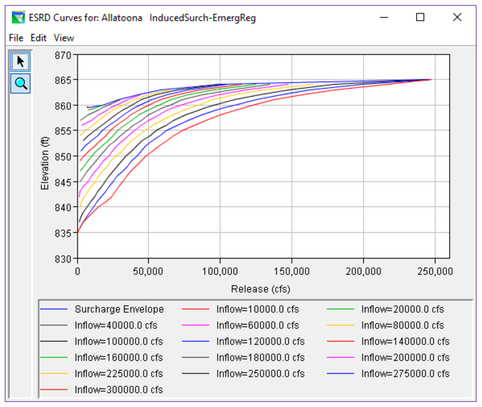


Sample Output Variables

Pool Elevation	Streamflow
Inflow	Stage
Discharge	Storage
Hydropower	Net Withdrawal
Evaporation	State Variable



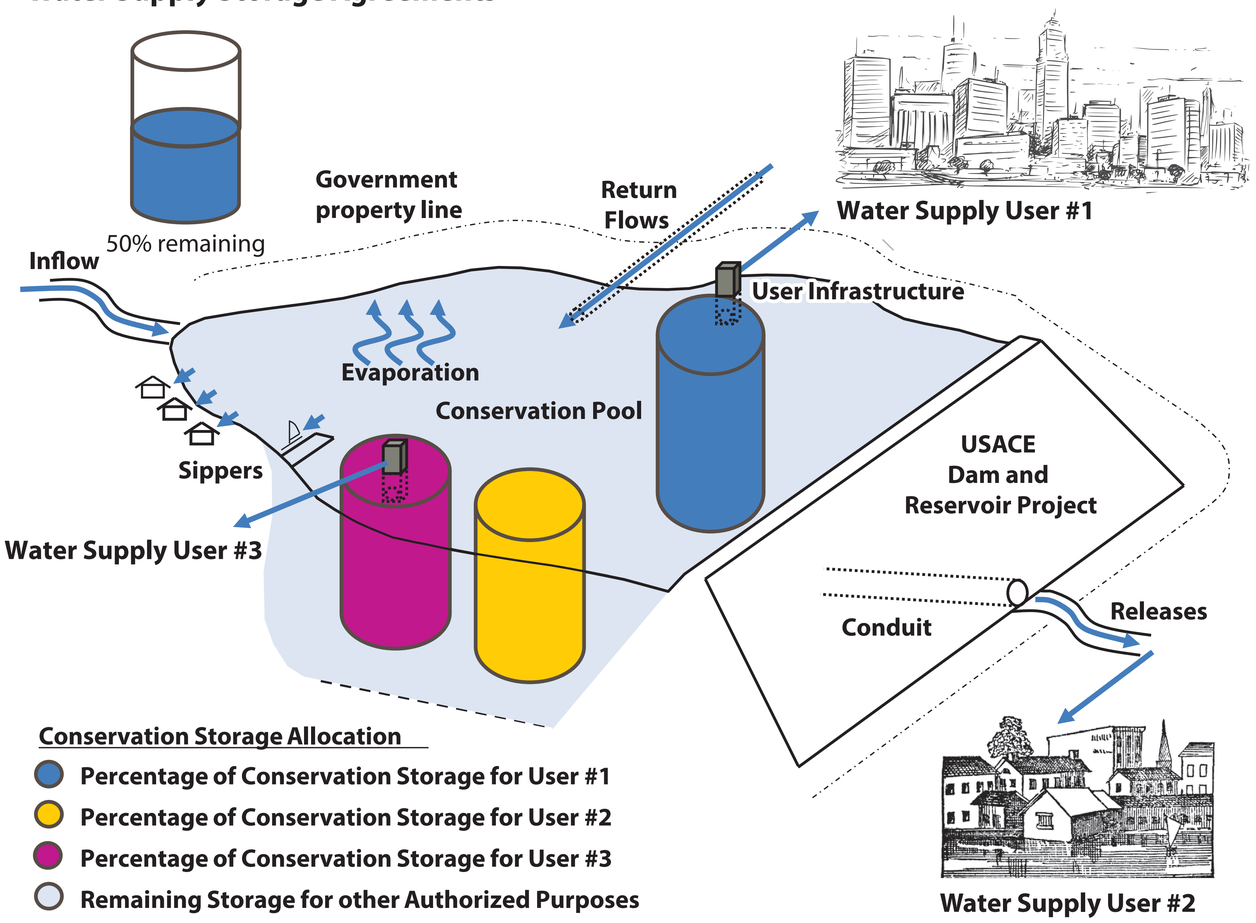




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Proposal for Storage Accounting

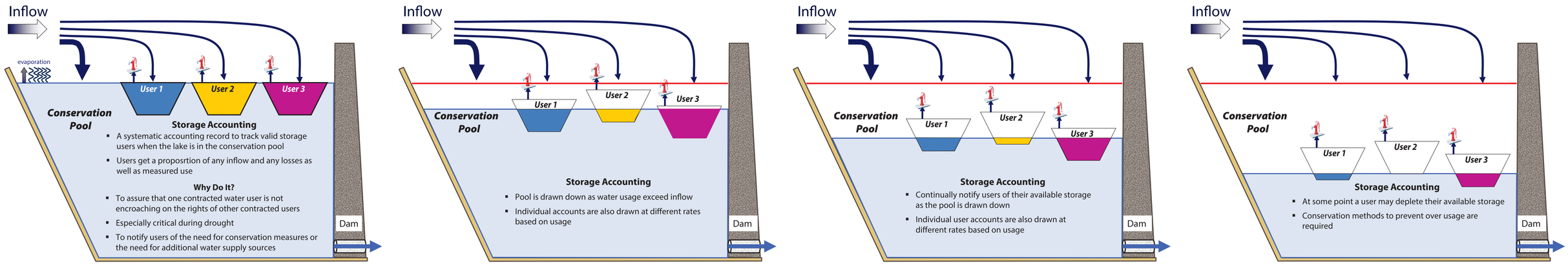
Water Supply Storage Agreements



Conservation Storage Allocation

- Percentage of Conservation Storage for User #1
- Percentage of Conservation Storage for User #2
- Percentage of Conservation Storage for User #3
- Remaining Storage for other Authorized Purposes

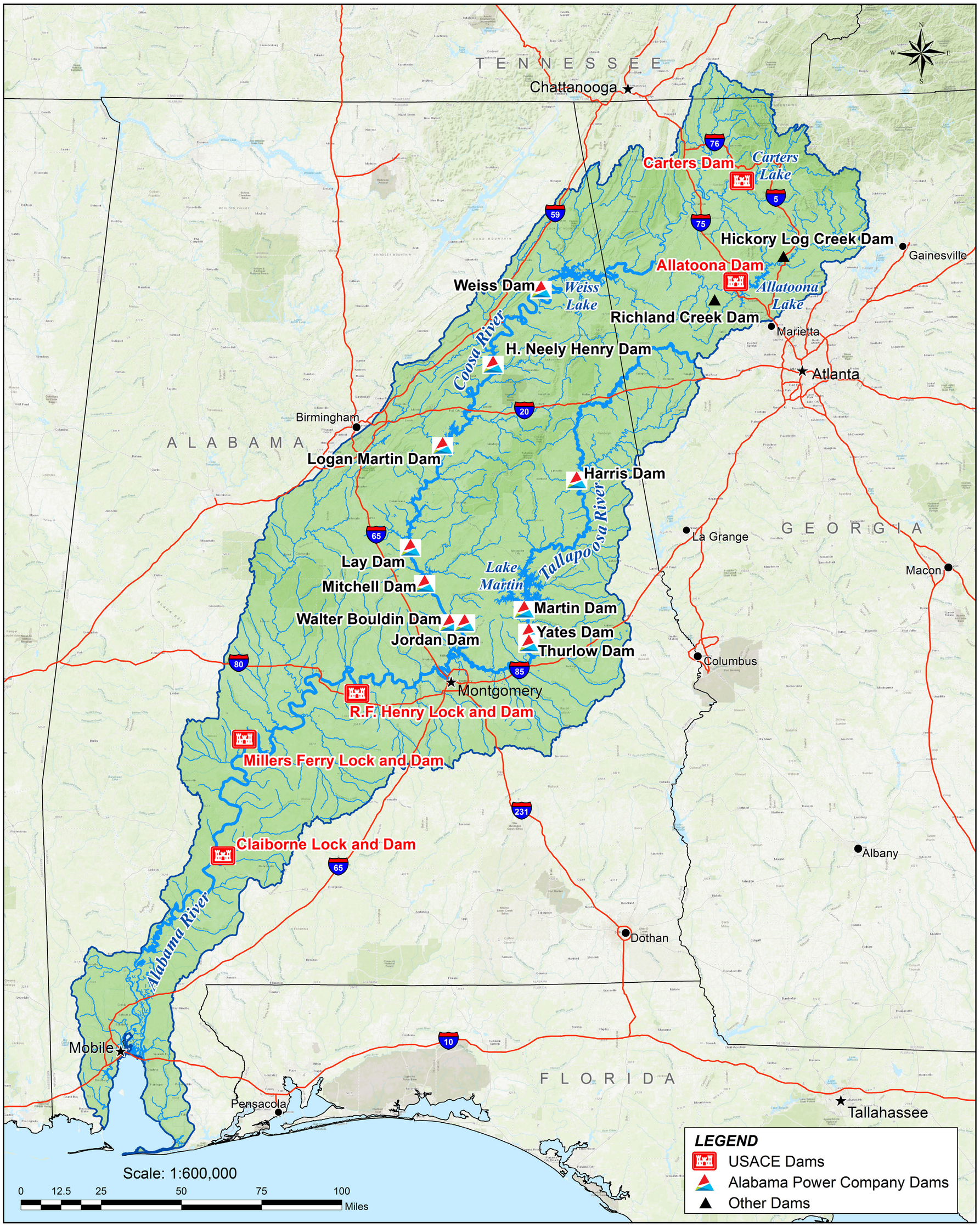
Storage Accounting Example



Formula: End Storage = Beginning Storage + Inflow Share – Loss Share – User's Usage

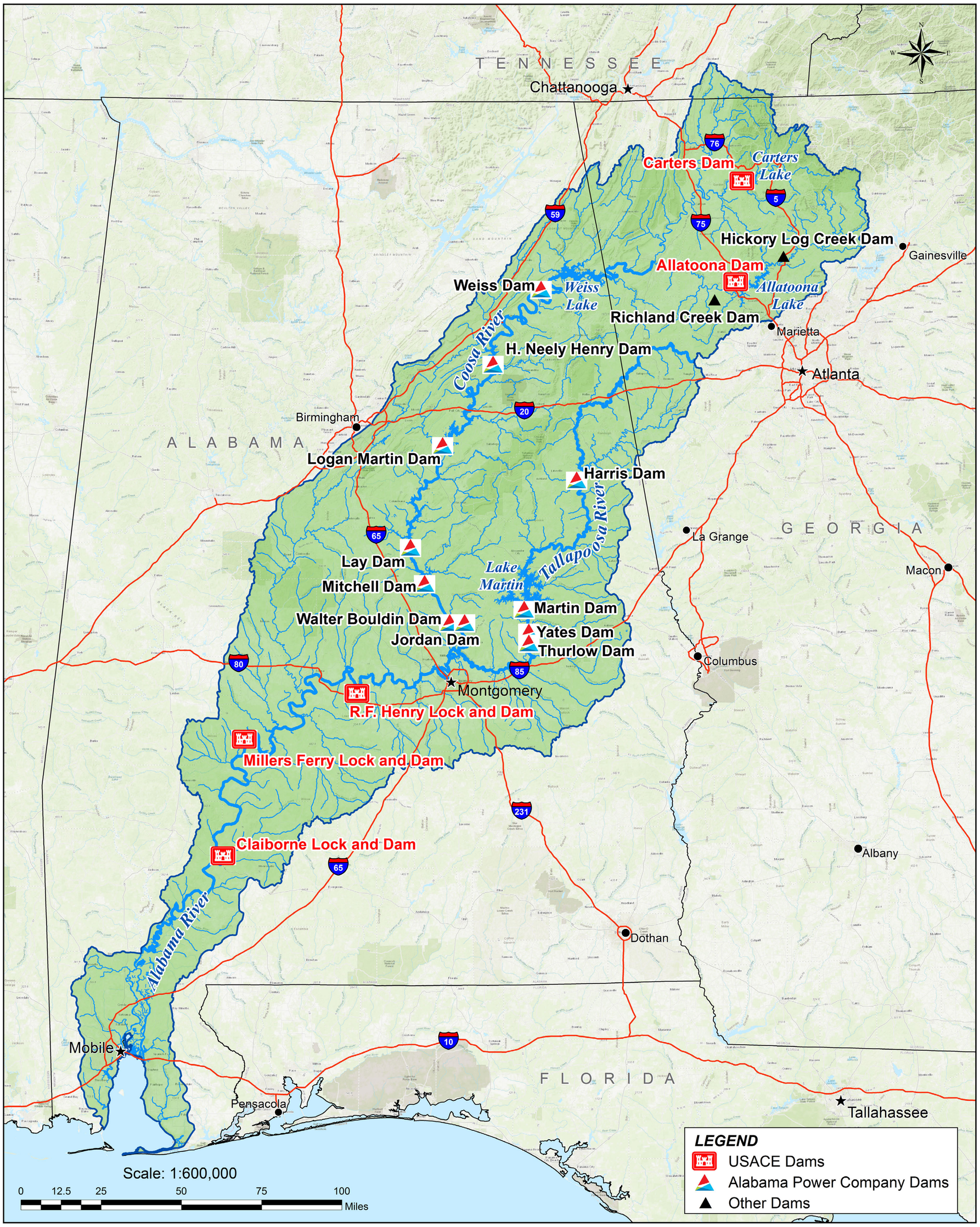
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ACT River Basin



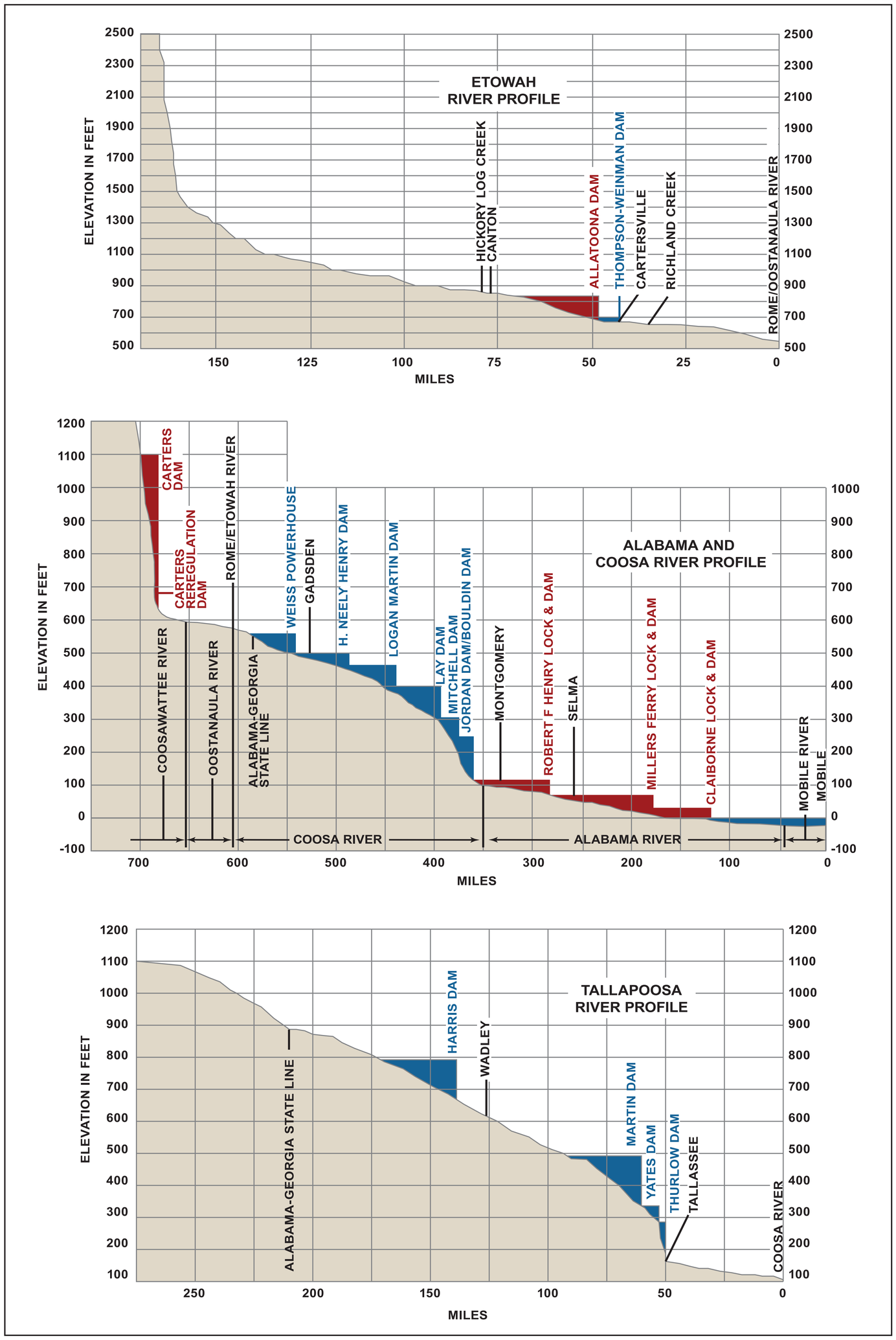
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ACT River Basin



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ACT River Basin Profiles



Legend	
	Federal Reservoir
	Non-federal Reservoir

The **river profile** shows how a river's gradient (or slope) changes as it flows from its source to its mouth. The river profile is created by plotting the elevation of the river above sea level at various points over its entire course. These river profiles also depict key locations and features along the length of the river, such as reservoirs, dams, cities, state lines, and confluences with other major tributaries and rivers.

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Submit Comments

Submit your scoping comments on the Allatoona Lake Water Supply Storage Reallocation Study and the Updates to the Weiss and Logan Martin Reservoirs Project WCMs by August 15, 2018, in one of the following ways:

- Submit comments on comment forms
- Provide verbal comments at the court reporter station
- Email comments to **ACT-ACR@usace.army.mil**
- Mail comments to:

  USACE Mobile District Commander
  ATTN: PD-EI (ACT-ACR)
  P.O. Box 2288
  Mobile, AL 36628-0001

US Army Corps of Engineers
Mobile District

Court Reporter

If you would like your verbal comments to become part of the public record, please make your statement to the court reporter. If you prepared a written statement, please leave it with the court reporter.

US Army Corps of Engineers
Mobile District