Apalachicola-Chattahoochee-Flint (ACF) River Basin

Water Control Manual Update
and
Environmental Impact Statement
Interagency Scoping Meeting

October 9, 2008

U.S. Army Corps of Engineers
Mobile District

US Army Corps of Engineers® Mobile District

WELCOME

- Meeting Overview
  - Introductions
  - Agenda
  - Planning Tool Results
  - Meeting Goals
    - Project background
    - Framework for Environmental Impact Statement and Process
    - Overview of public involvement approach
    - Agency comments and level of involvement
    - Input on tools, methodology and other discussion
    - Schedule for continuing coordination

ACF River System

Pete Taylor
Mobile District

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History

- 1989 Proposed Reallocation of Lanier
- 1990 Alabama Files First Lawsuit
- 1991-1992 Letter/Memorandum of Agreement – "live and let live"
- 1992-1996 Comprehensive Study
- 1997 ACF Compacts
- 2000 Southeast Federal Power Customers (SEFPC) Lawsuit
- 2001 Georgia Lawsuit
- 2003 Settlement Reached in SEFPC Litigation
- 2003/2004 Compacts Expire
- 2006
  - Formal Consultation with USFWS resulting in Interim Operations Plan (IOP)
  - Court Orders Mediation
  - Georgia Lawsuit reference Gage and IOP/Biological Opinion (BiOP)
- 2007
  - Drought Worsens – Teleconferences (Open Dialogue)
  - ACF Lawsuits Consolidated due to Multiple Districts
  - Court Ordered Mediation Ends
  - SEFPC Settlement Invalidated by D.C. Circuit; Lawsuit Transferred to Multi District Litigation (MDL)
- 2007/2008 Executive Branch Led Negotiations
- 2008 Secretary of the Army Directs ACF Manual Update

Challenges

WE RECOGNIZE THE SIGNIFICANT CHALLENGE!

- History
  - (comprehensive study, compacts, mediation, litigation, water allocation, etc)
- Expectations
  - (stakeholders, “revision”)
- Environmental
  - Endangered Species Act
  - Water Quality
- Engineering
  - Modeling
  - Data Availability
- Multi-State Involvement
- Public Involvement
- Multi-Year Drought

ACF Water Control Manual (WCM) Background

- ACF WCM Update Process
- What is a Water Control Manual?
- Baseline Conditions
- Proposed Action and Alternatives

Randall Harvey
Mobile District

ACF Water Control Manual

Today's water manager must be a software systems technician, data base manager and administrator, a programmer, an engineer, a hydrologic forecaster, a meteorologist, a modeler, a news reporter, an artist, a butcher, a baker, and a water management decision maker!

Water Control Manuals provide documentation including Water Control Plans for specific projects and river basin systems and include guidelines for making water management decisions.

Authority for Water Control Operations

- Congressional authorization for Federal reservoir projects
- "Blanket" congressional authorizations which apply to all Federal reservoir projects
  - Fish and Wildlife Coordination Act (P.L. 85-624)
  - Flood Control Act of 1944 (P.L. 78-534)
  - Water Supply Act of 1958 (P.L. 85-500)
  - Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500)
  - Endangered Species Act of 1973 (P.L. 93-205)
  - Water Resource Development Acts provisions

Responsibilities for Water Control Plans and Manuals

- Office of Chief of Engineers ***prescribes*** policies and general guidelines
- Division Engineer ***approves*** water control plans and manuals, and associated activities
- District Engineer conducts background studies and ***develops*** water control plans and manuals

Water Control Manuals

- Documentation of the Water Control Plan for specific projects and river basin systems
- Reference Source
  - Daily use in water control management decisions for all foreseeable conditions affecting a project or river basin system

Water Control Manuals

- Updated or revised as necessary → *Living Document*
  - Changes made in project area or downstream of project
  - Improvements in technology
  - New legislation
  - New environmental requirements
  - Other relevant factors
- Comply with existing Federal laws and regulations and established Corps of Engineers policy

Contents of a Water Control Manual

- Pertinent Project Data
- I – Introduction
- II – Description of Project
- III – History of Project
- IV – Watershed Characteristics
- V – Data Collection and Communication Networks
- VI – Hydrologic Forecasts
- VII – Water Control Plan
- VIII – Effect of Water Control Plan
- IX – Water Control Management
- Standing Instructions to the Project Operator

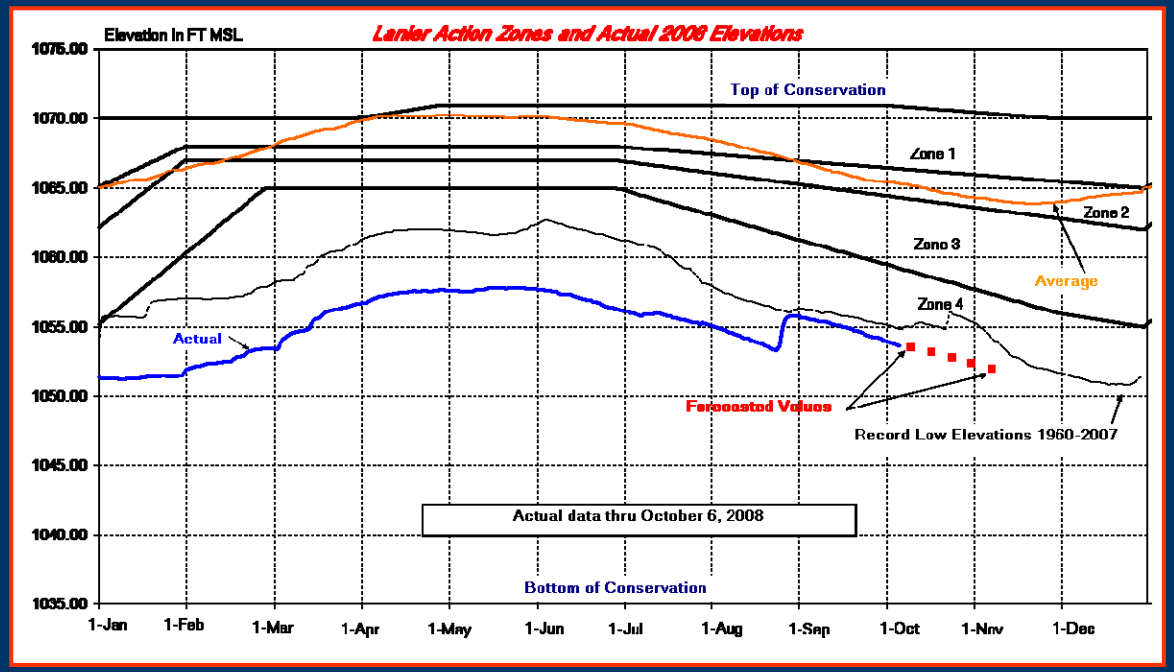
VII - Water Control Plans

- Required for reservoirs, locks and dams, and re-regulation structures
  - Outline regulation schedules for each project and river basin system
  - Basin data collection, analysis & dissemination
  - Assure project safety
  - Regulation of project in authorized manner to balance multiple purposes and demands
    - Normal Condition Operation
    - Flood Damage Reduction Operation
    - Drought Operation

Reservoir Regulation Schedules

- Operating criteria, guidelines and guide curves
- Specifications for storage and releases

  - **1,040 mi^2 Drainage Area**
  - **105 MW**
  - **1,087,060 Acre-Feet**
  - **750 cfs Minimum Flow at Peachtree Creek**



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Public Involvement

- Water Resources Development Act (WRDA) of 1990
  - Section 310 requires public participation in developing or revising reservoir operating manuals
- Public involvement and public meetings required:
  - Development of a new water control manual that includes a water control plan
  - Revision/update of a master water control manual that changes the water control plan
  - Not required for administrative or informational changes
- Public involvement under WRDA is being integrated with public involvement requirements for NEPA

Baseline Conditions

- 2004 Operation Conditions
  - Federal lake withdrawals when ACF River Basin Compact expired
  - Reservoir system operation
- Baseline will be expanded and updated as required to:
  - Reflect current problems, opportunities and constraints
  - Establish final planning criteria and objectives
  - Refine measures
  - Formulate the array of alternatives

Proposed Action & Alternatives

- Proposed Action
  - Updating the Master Water Control Manual for the ACF Basin to current conditions with the drought plan.
  - Alternatives
    - Basin Drought Plan
    - Modification of Action Zones
    - Water Supply Withdrawals
- No Action
  - The 2008 current reservoir system operations reflecting current water supply demand throughout the basin.

What is Scoping?

- NEPA gives all persons, organizations, and government agencies the right to review and comment on proposed federal actions that are evaluated in an Environmental Impact Statement.
- This is known as the "Scoping Process"

Kristin Shields
Tetra Tech, Inc.

The Scoping Process

- Scoping is the initial step in the preparation of an EIS
- Scoping is an "early and open process for determining the scope of issues to addressed, and identifying the significant issues related to the proposed action."
- The scoping process will identify:
  - Range of actions (project, procedural changes)
  - Alternatives—those to be rigorously explored and evaluated and those that may be eliminated
  - Range of environmental impacts

Elements of Scoping Process

- Consider range of possible alternatives to proposed action
- Seek input from other agencies, organizations, and the public
- Identify range of potential environmental issues to be analyzed (human and natural environment)
- Identify and eliminate issues that are not significant or relevant to the proposed action
- Delineate the study area (Region of Influence)
- Identify potential mitigation measures

5 Public Scoping Meetings

- October 20 – Apalachicola, FL
  - 5 – 8 pm
- October 21 – Dothan, AL
  - 5 – 8 pm
- October 22 – LaGrange, GA
  - 5 – 8 pm
- October 23 – Marietta, GA
  - 4 – 7 pm
- October 29 – Gainesville, GA
  - 5 – 8 pm

Format of Scoping Meetings

- All meetings will have the same format and present the same information to the public.
- Open-house style.
- Subject matter experts located at various information stations.
  - We invite agency participation at the public meetings.
- Court reporter will be available to accept oral statements, comment forms will be available to accept specific written comments, and stations will be available for electronic comments.

Announcement of Public Scoping Meetings

- Database of nearly 4700 contacts
- NOI Supplement/Announcement of Meetings on September 19, 2008
- Press release September 19, 2008
- Newsletter mailed on October 7, 2008
- Press release one week before meetings
- Webpage: www.acf-wcm.com

Reservoir System Modeling

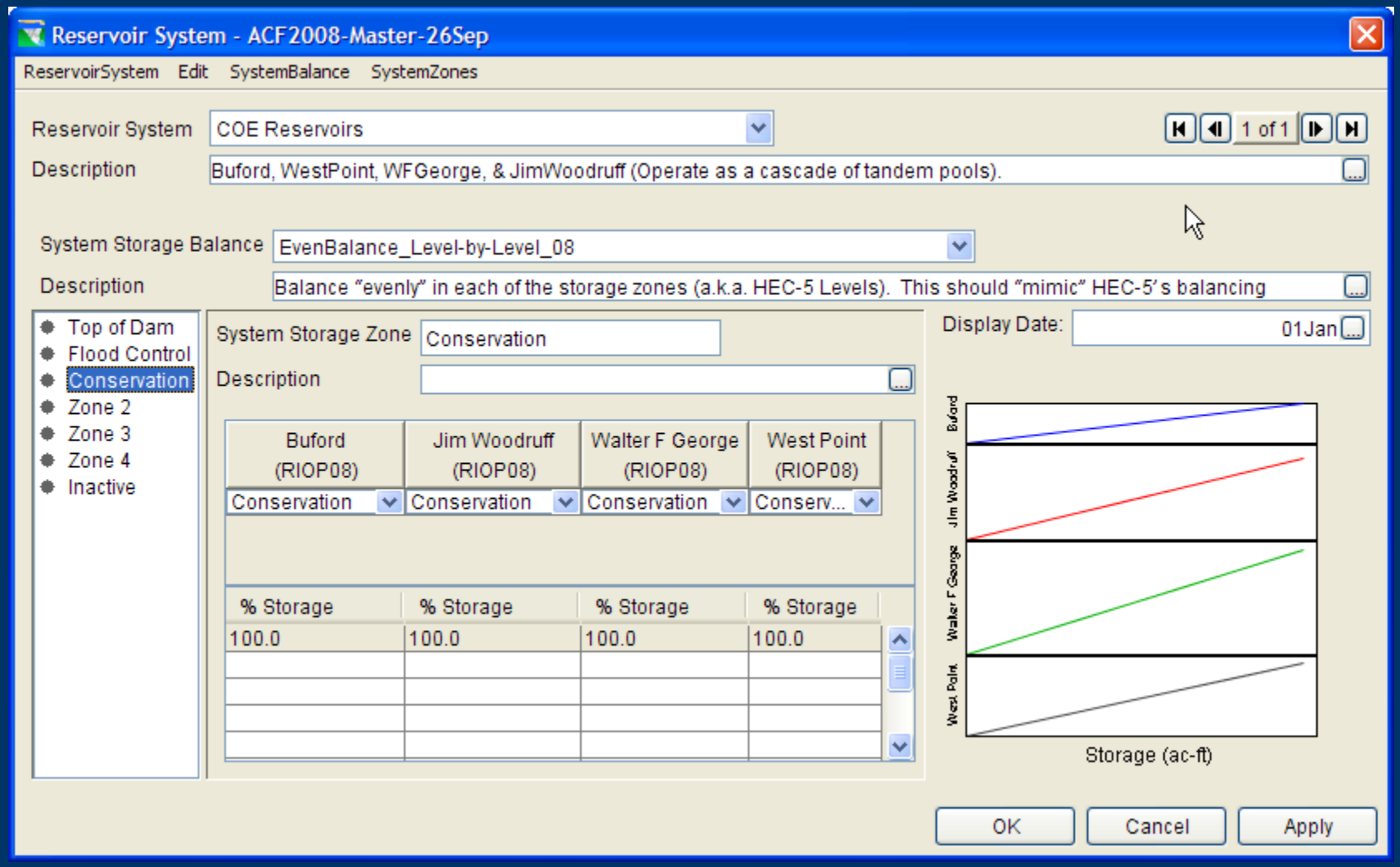
- Modeling required to update manuals
- Developed by the Hydrologic Engineering Center (HEC)
- HEC-ResSim is the hydrologic model preferred by all 3 states
- Current models developed in partnership HEC & Mobile District

James Hathorn
Mobile District

ResSim Major Features

- Graphically Defined System Schematic
- Hierarchical Outlet Structure
- Zone Based Prioritized Operation Rule Set
- Tandem and Parallel Reservoir System Operations
- Compute Interval Ranging from 15min – 1day
- User-defined Plots and Reports

System Operations & Balancing



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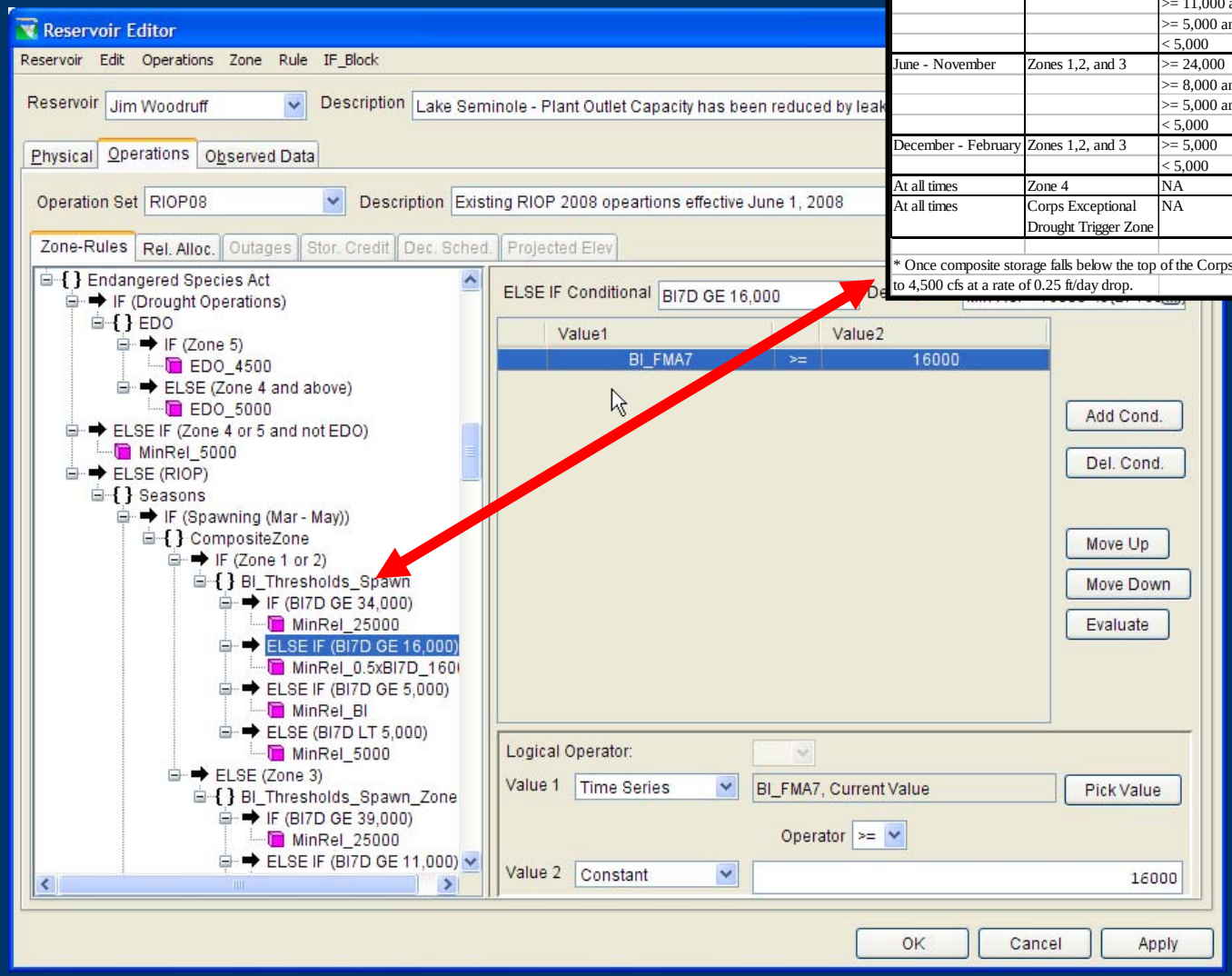
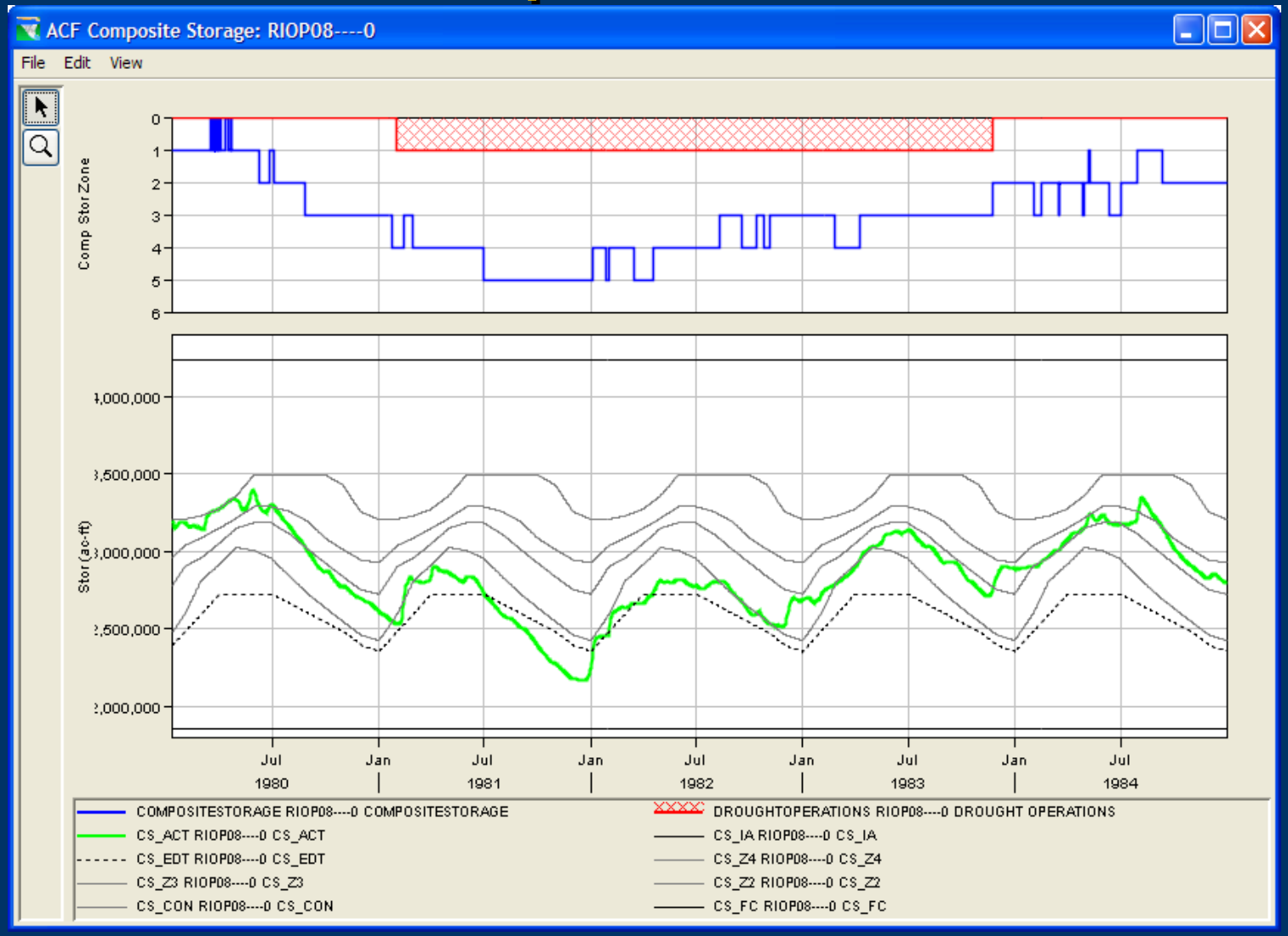
If-then-else



Months	Composite Storage Zone	Basin Inflow (BI) (cfs)	Releases from JWLD (cfs)
March - May	Zones 1 and 2	>= 34,000	= 25,000
		>= 16,000 and < 34,000	= 16,000 + 50% BI > 16,000
		>= 5,000 and < 16,000	= BI
		< 5,000	= 5,000
	Zone 3	>= 39,000	= 25,000
		>= 11,000 and < 39,000	= 11,000 + 50% BI > 11,000
		>= 5,000 and < 11,000	= BI
		< 5,000	= 5,000
June - November	Zones 1,2, and 3	>= 24,000	= 16,000
		>= 8,000 and < 24,000	= 8,000 + 50% BI > 8,000
		>= 5,000 and < 8,000	= BI
		< 5,000	= 5,000
December - February	Zones 1,2, and 3	>= 5,000	= 5,000 (Store all BI > 5,000)
		< 5,000	= 5,000
At all times	Zone 4	NA	= 5,000 (Store all BI > 5,000)
At all times	Corps Exceptional Drought Trigger Zone	NA	= 4,500 (Store all BI > 4,500)*

* Once composite storage falls below the top of the Corps Exceptional Drought Trigger Zone ramp down to 4,500 cfs at a rate of 0.25 ft/day drop.

Scripted Plots



Modeling Status

- ACF
  - Res-Sim models: base conditions - 95% complete
  - Res-Sim model: 2008 - 80% complete
  - HEC-5Q Model: developing scope
  - HMS Flood Routing Model developed for Upper Coosa
- General
  - Stakeholder workshop Sept 30 – 02 Oct, Jim Woodruff Dam
  - Hosted meeting in HEC with Mobile Staff & HEC-5Q contractor
  - HEC Staff members traveled to Mobile
  - Conduct weekly technical conference calls with HEC

Concurrent Tasks

- Completed inventory of existing HecRAS and HMS models in the basin
- Collected water use data from AL, GA and FL
- Completed scanning existing Water Control Manuals
- Developing water use projections
- Extending Unimpaired Flow data set through 2006

Linkage to Other Models

- Water Quality Impacts - HEC5Q
- Environmental Impacts – IHA

Resource Areas in the EIS

- Biological Resources – Brian Zettle, Mobile District
- Socioeconomic Resources – Julie Watkins, Mobile District
- Cultural Resources – Tommy Birchett, Mobile District
- Water Resources – Steven Davie , Tetra Tech, Inc
- Infrastructure Resources
- Other Resources

Biological Resources

- Vegetation
  - Terrestrial
  - Wetlands
- Wildlife
- Fish and Aquatic Life
  - Freshwater
  - Marine
- Threatened and Endangered Species

Brian Zettle
Mobile District

Socioeconomic Resources

- Qualitatively and quantitatively analyze existing data sources to determine the impacts of implementing the Water Control Manual on economic resources.

- Resources and Areas of Potential Impact:
  - Recreation
    - Visitor Days
  - Hydropower
    - Megawatt Output
  - Navigation
    - Availability of Channel Depth
  - Flood Control
    - Flood Damages Prevented
    - Land Use Changes
  - Municipal and Industrial Water Supply
    - Demand Millions Gallons Day
  - Agricultural Water Supply
    - Demand Millions Gallons Day
  - Social Effects
    - Population, Employment, Income
  - Cumulative Effects

Julie Watkins
Mobile District

Cultural Resources

- Archaeological sites
  - Burial Sites
  - Ceremonial Sites
  - Villages
- National and/or Historic Sites
  - Standing structures
  - Landscapes
  - Traditional cultural properties

Tommy Birchett
Mobile District

Water Resources

- Water Quantity
  - Water Use (Municipalities, Agriculture, and Industrial)
  - Interbasin Transfers
  - Minimum Flows and Instream Flows
  - Water Withdrawals
  - Reservoir Storage
- Water Quality
  - Impaired Segments (water quality standards)
  - Non Point Sources
  - Point Sources Discharges
- Floodplains
- Groundwater
  - Water Use

Steven Davie
Tetra Tech, Inc.

Infrastructure Resources

- Hydropower
- Traffic and Transportation (as it relates to changes in navigation)
- Utilities
- Water Supply

Other Resources

- Land use activities
- Hazardous and Toxic Substances
- Safety
- Recreation
- Noise
- Air Quality

Interagency Coordination

- Agencies and Points of Contact
- Open Discussion on any issues
- Information – Acquisition and Sharing
  - Available Information - Existing
  - Additional Information
  - Information Exchange
  - Technical Workgroups

Brett Boston
Group Solutions

Next Steps

- Public Scoping Meetings – October 20 - 29, 2008
- Scoping Report – December 2008
- Draft WCM and EIS – Spring 2010
- Public Review/Meetings on Draft WCM and EIS – Summer 2010
- Final WCM and EIS – Spring 2011
- ROD – Summer 2011