Enclosure 14

Memorandum for Record Annual Fish Management Coordination Meeting 15 February 2005 CESAM-PD-EI 17 February 2005

MEMORANDUM FOR RECORD

SUBJECT: 2005 Annual Fish Spawn/Fish Management Coordination Meeting

1. On 15 February 2005, representatives of the U.S. Army Corps of Engineers (USACE), Mobile District, met with representatives of the U.S. Fish and Wildlife Service (USFWS), Alabama Department of Conservation and Natural Resources (ADCNR), Florida Fish and Wildlife Conservation Commission (FWCC), and Georgia Department of Natural Resources (GA-DNR) to review the results of water management operations in support of fish spawning activities in 2004, the current status of hydrological conditions in the Apalachicola, Chattahoochee, Flint (ACF) river basins, and projected climatological and hydrological conditions that should be considered to assist in making recommendations for water management operations in support of fish spawning activities in 2005. Another purpose of the meeting was to finalize the coordination and operations protocols for incorporation into SAM SOP 1130-2-9. The following representatives participated in the annual coordination meeting:

Damon Abernethy, ADCNR, (334) 358-0035, dabernethy@dcnr.state.al.us
Ted Hoehn, FWCC, (850) 488-6661, ted.hoehn@myFWC.com
Rick Long, FWCC, (850) 487-1645, eric.long@myFWC.com
Charles Mesing, FWCC, (850) 487-1645, eric.long@myFWC.com
Ramun Martin, GA-DNR, (229) 430-4256, ramun_martin@dnr.state.ga.us
Rob Weller, GA-DNR, (229) 430-4250, rob_weller@mail.dnr.state.ga.us
Brent Hess, GA-DNR, (706) 845-4180, brent_bess@mail.dnr.state.ga.us
Jerry Ziewitz, USFWS, Panama City, FL (850) 769-0552, Ext.-223, jerry_ziewitz@fws.gov
Alice Lawrence, USFWS, Athens, GA, (706) 613-9493, Ext. 222, alice_lawrence@fws.gov
Gary Mauldin, USACE, South Atlantic Division, Water Mgt., (404) 562-5232, gary.v.mauldin@usace.army.mil
Eddie Sosebee, USACE-West Point Lake Operations Project Mgr., (706) 645-2937, ralph.e.sosebee.jr@sam.usace.army.mil

Bill Smallwood, USACE-ACF Operations Project Mgr., (229) 768-2516, william.l.smallwood@sam.usace.army.mil Bill Bond, USACE-Lake Seminole, (229) 662-2001, william.j.bond@sam.usace.army.mil

Don Morgan, USACE-Lake Seminole (229)662-2001, don.m.morgan@sam.usace.army.mil

Ken Day, USACE-Mobile, Res Mgt., Operations Div., (251) 694-3724, kenneth.day@sam.usace.army.mil

Bo Ansley, USACE-Mobile, Prog. Mgt., Operations Div., (251) 694-3726, hubert.r.ansley@sam.usace.army.mil

Marilyn Phipps, USACE-Mobile, PublicAffairs, (251) 690-2506, marilyn.j.phipps@sam.usace.army.mil

Gene Morisani, USACE-Mobile, Water Mgt., (251)690-3385, eugene.a.morisani@sam.usace.army.mil

Cheryl Hrabovsky, USACE-Mobile, Water Mgt., (251) 90694-4018, cheryl.l.hrabovsky@sam.usace.army.mil

Rob Erhardt, USACE-Mobile, Meterologist, (251) 690-3384, robert.d.erhardt.jr@sam.usace.army.mil

Memphis Vaughan, USACE-Mobile, Water Mgt., (251) 690-2730, memphis.vaughan.jr@sam.usace.army.mil

Joanne Brandt, USACE-Mobile, Planning & Environ, (251) 690-3260, joanne.u.brandt@sam.usace.army.mil

A copy of the draft agenda for the meeting discussions is enclosed.

2. <u>Summary of 2004 Fish Spawn Operations</u>. Cheryl Hrabovsky and Gene Morisani gave a summary of 2004 operations in support of fish spawning activities on the ACF. A copy of their presentation slides is attached. For Lake Lanier/Buford Dam and West Point Lake fish spawn operations extended from 1 April through 1 June, and stable or gradually rising elevations were maintained throughout the period. Lake levels approximated the rule curve during refill of the lakes for the fish spawn operations period. For Walter F. George Lake fish spawn operations

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were maintained for an extended period from 15 March through 4 June and lake elevations were maintained between elevations 188 and 189 except for a day or so. Concerns had been raised by GA-DNR to maintain stages above 188 and close to 189 in order to maintain inundation of vegetated shorelines during spawn operations. Lake Seminole/Jim Woodruff fish spawn operations were maintained from 4 March through 8 April and maintained elevations within a 6-inch range around elevation 177. Fluctuations in Lake Seminole were primarily due to inflows from the Flint River and releases necessary to maintain downstream river stages. Fish Spawn operations for the Apalachicola River were maintained from 15 March through 21 June, with approximately 5 weeks of stable stages, and then gradually declining stages for the remainder of the extended period. Inflows into the ACF basin were 37, 36 and 50 percent of normal, respectively for the months of March, April and May. We were not able to provide river stages sufficient to inundate large areas of important fish habitat, and portions of Gulf sturgeon spawning habitat were not fully submerged during fish spawn operations period due to extremely low inflows in the basin during the driest March on record. In consultation with the U.S. Fish and Wildlife Service, a system of monitoring basin inflows over a 3-day average, and then managing to release at least the basin inflows was developed to assure that Apalachicola River fisheries were supported with at least the basin inflows into the system. The graph showing comparison of basin inflows with releases from Jim Woodruff Dam shows several periods from late March through early June when releases to the Apalachicola River were augmenting flows above the basin inflows. Flows on the river were maintained above 7000 cfs except for a couple of days at approximately 6500 cfs.

3. Outlook for 2005 Hydrological/Climatological Conditions. Gene provided the current hydrological conditions for 2005 and the 4-week projections for lake levels and river stages at the projects within the ACF system. The 4-week projection shows what we expect to see in early to mid-March. Lake levels at Lake Lanier, West Point Lake and Walter F. George are projected to be at or near the rule curve for top of conservation. Lake Seminole (Jim Woodruff) is projected to be at approximate elevation 77. It is anticipated we will be able to maintain the Apalachicola River at or above an 8 to 9-foot Blountstown gage. All of these projections are subject to change during the fish spawn period depending upon the amount of rainfall that is received in the basin.

Rob Erhardt provided a summary of the climatological conditions within the southeastern United States and the river basins within Mobile District. In 2004 we experienced moderate drought conditions during the spring months, the driest March on record and one of the hottest on record. These extremely dry conditions extended into the month of April 2004. We have to date experienced very similar condition for the months of January and February 2005 to those experienced in January and February 2004. However, there are not drought conditions forecast for the southeastern states for 2005. It would be a very rare event to experience another spring as dry as 2004.

4. Recommendations for Fish Spawn Operations in 2005. The group then discussed recommendations for fish spawn operations in Spring 2005. In general, it is better to have sufficient river flows to support fish spawning early in the year, and allow for lower river stages later in the summer to fall months. However, it was agreed that this should not be at expense of conserving storage in the upstream reservoirs which can be used to augment flows throughout the remaining months and in support of other authorized project purposes. In the event of low flows this spring, it was agreed to continue to implement the system of providing releases from Jim Woodruff that meet or exceed the average basin inflows. During last year's coordination meeting, USFWS and FWCC indicated that a minimum of 18,000 cfs flow would be required to

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support Apalachicola River spawning, although approximately 21,000 cfs would be required to fully inundate the sturgeon spawning habitat (rock ledge) immediately below Jim Woodruff Dam. Jerry Ziewitz noted this would still be the desired flow. The projected 8- to 9-foot Blountstown gage would provide the minimum 18,000 cfs flow. The Corps will make attempts to provide the 8- to 9-foot stage as long as possible, depending upon inflows into the basin. During any low flow conditions during the designated fish spawn periods when this cannot be accomplished, the Corps will consult via telephone conferences and/or email coordination with the U.S. Fish and Wildlife Service and the appropriate State agency representatives to assist in making appropriate water management decisions in support of fish spawning. FWCC expressed concern that the upstream reservoirs be maintained as close to the top of conservation as possible rather than holding levels above the conservation pool, in order to provide sufficient or a "fair share" of flows to the river. Memphis and Gene assured that was the desired practice, but it normally will take a few days to bring the reservoir levels back to the rule curve after a substantial rain event, and the practice is to gradually lower back to the top of conservation while making beneficial use of the water captured in the reservoir. Beneficial use can mean use for other project purposes (e.g., hydropower), or to maintain more stable river stages by controlling releases, etc. When operating to balance releases from Jim Woodruff with basin inflows during low flow conditions, upstream reservoirs will generally be kept at a stable level, while river stages are stable and/or gradually falling - depending on the available inflows.

5. Recommendations for Final Language in Revised SAM SOP 1130-2-9. A copy of the latest draft SAM SOP 1130-2-9 was distributed to the group (copy attached). This draft maintains the substance of the previous drafts but has been reformatted and provides for minor changes in the internal coordination within the Corps. The SOP outlines goals for fish spawn management, agency coordination requirements and designates a 2-month period for each project during which water management operations in support of fish spawn will be implemented for a minimum of 4- to 6-weeks. The goal is to provide stable or gradually rising levels on the lake projects, and stable or gradually declining river stages on the Apalachicola River. It was requested that final agency comments be provided on this draft version. The agencies confirmed the dates for each project spawning periods. Brent Hess concurred with the dates for West Point Lake (1 April – 1 June), but recommended that the management period be scheduled to begin early in April whenever possible. Charlie Mesing suggested that the SOP be modified to allow the upstream reservoirs to be lowered up to 1 foot instead of the 6 inches currently stated as the current SOP language. However, it was generally agreed that the 6-inch goal should be maintained in the SOP, with the understanding that the agencies could recommend an alternative management scheme as necessary during annual coordination discussions or the agency consultation teleconference discussions. It was intended to forward the draft SOP to South Atlantic Division for approval prior to the initiation of fish spawn management activities this spring. However, due to ongoing litigation filed by the States of Alabama and Florida, and references to fish spawn management activities and the SOP in the recent litigation complaint filed by the State of Florida, final approval of the SOP may be deferred pending receipt of approval to proceed from the Department of Justice and/or the judge in the U.S. District Court.

6. Other Fish Management Activities.

a. Alice Lawrence and Jerry Ziewitz noted they were looking a the peaking operations and impacts on fish spawning on the Etowah River below Allatoona Dam. They would like to work with the Corps to develop a plan for providing relatively stable river levels for an approximately 2-week period during spawning, by either eliminating power peaking altogether; generating

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through the house unit or releasing a minimum flow through one of the turbine units. Memphis noted that we would probably be able to work something out to accommodate those needs.

- b. GA-DNR noted that they are working in partnership with US Fish and Wildlife Service to fund a fish passage study this spring at Jim Woodruff Lock. Dr. Isley will be performing the study under contract, and will monitor movements of Alabama shad, striped bass and Gulf sturgeon within the lock. Fish will be tagged with sonar tags and movements will be monitored by hydrophones placed within the lock chamber. The Corps has been working with Dr. Isley in placement of the hydrophones and monitoring equipment, and will assist in monitoring data output, etc. The study will be conducted during the month of March and possibly extending into April to include monitoring of Gulf sturgeon movements.
- c. The Corps has participated with the USFWS in the mapping of available hard bottom habitat areas in the upper 20 miles of the Apalachicola River which may be utilized by Gulf sturgeon for spawning. We are currently relating the location and depth of the habitat areas to flow stages to determine the amount of habitat available various flow stages. The Corps also purchased 15 radio tags that were placed by USFWS on mature Gulf sturgeon during the fall of 2004. It is planned to monitor migratory movements of the sturgeon this spring, and also monitor movements to spawning habitat areas. Egg mats will be placed at potential spawning habitat areas where sturgeon have been tracked to monitor for use and/or spawning success.
- 7. Attempts will be made to schedule the 2006 Annual Coordination Meeting in conjunction with the February Morone Workshop. The next Morone workshop will be held on 7-8 February 2006 in Apalachicola Florida.

Enclosures

JOANNE BRANDT Biologist Inland Environment Team

Apalachicola Chattahoochee and Flint Rivers System

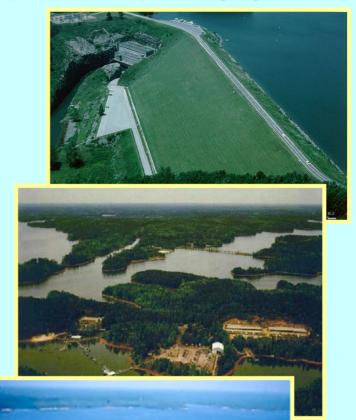
Summary of Operations in 2004, Current Conditions of 2005 and Outlook

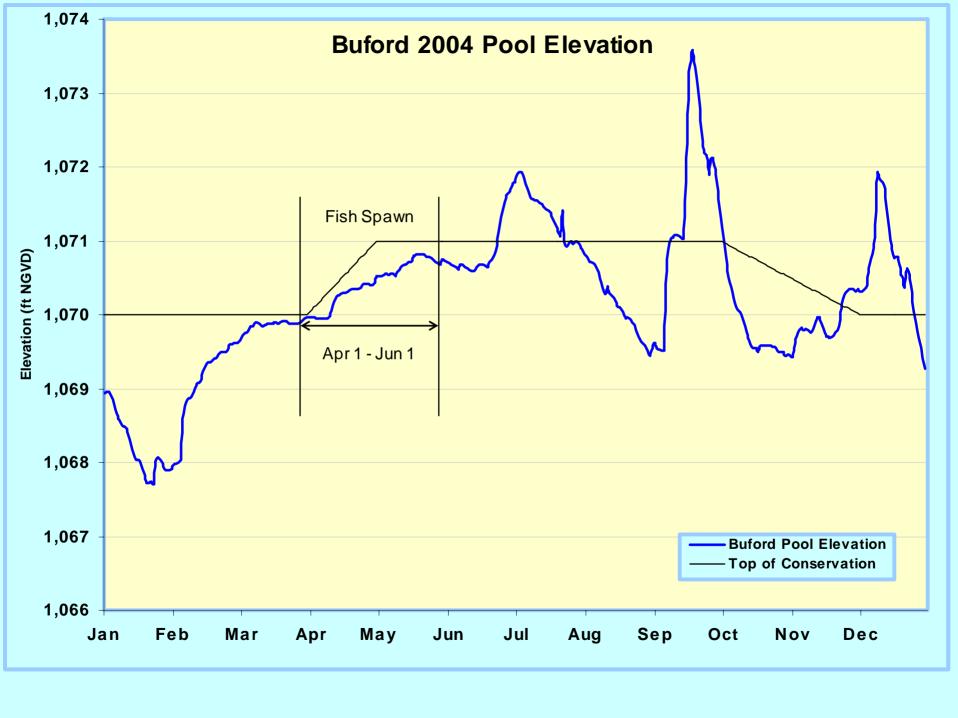
Lake and River Elevations 2004

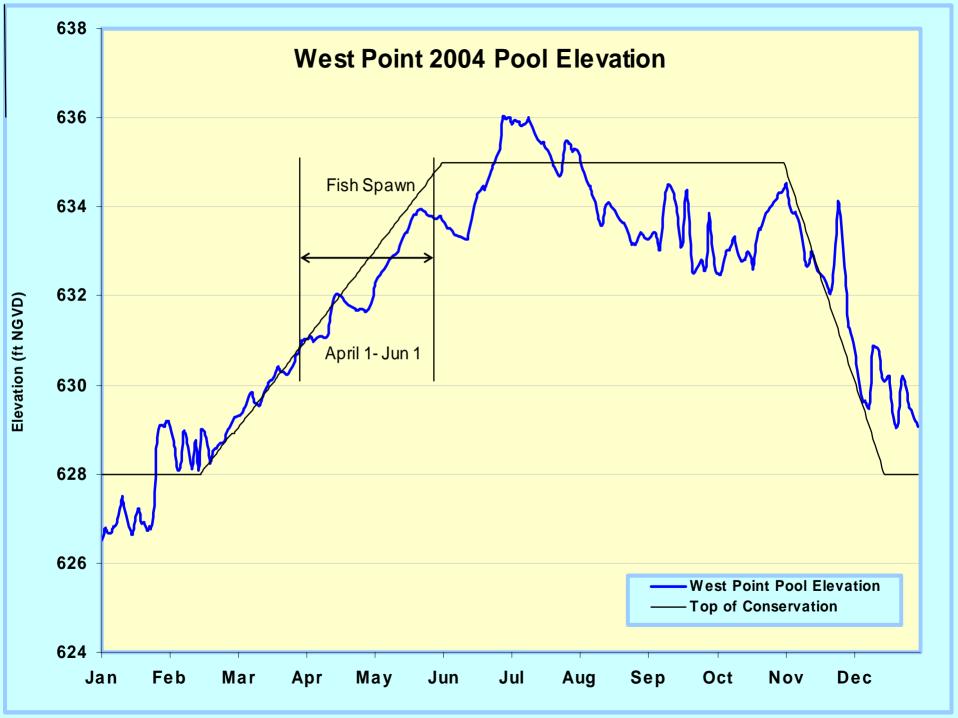
- Sidney Lanier
- West Point
- Walter F. George
- Jim Woodruff
- Blountstown

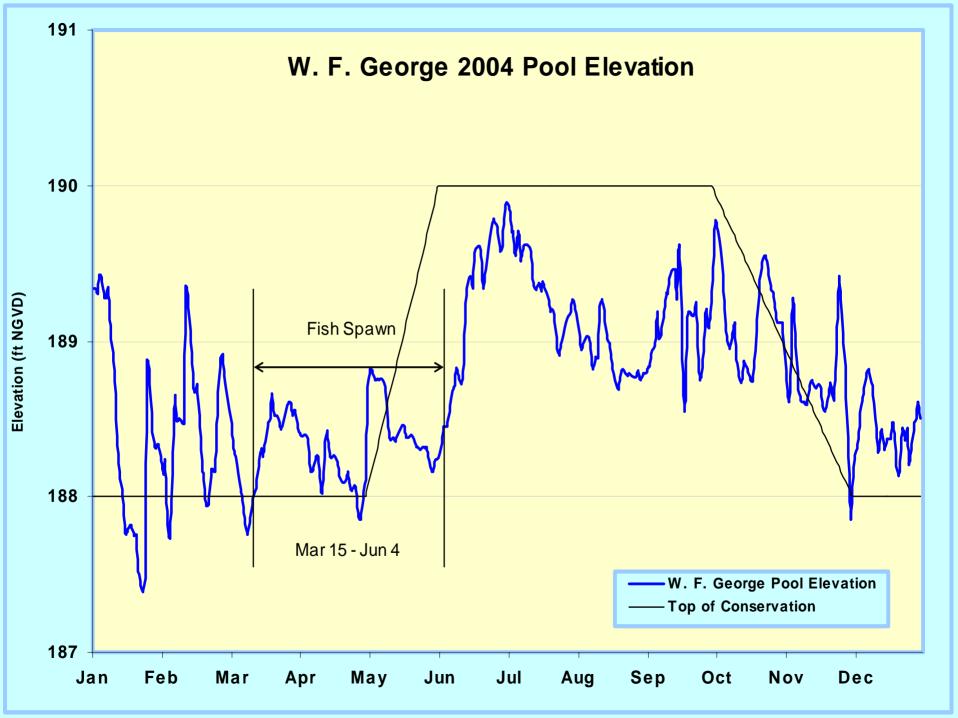


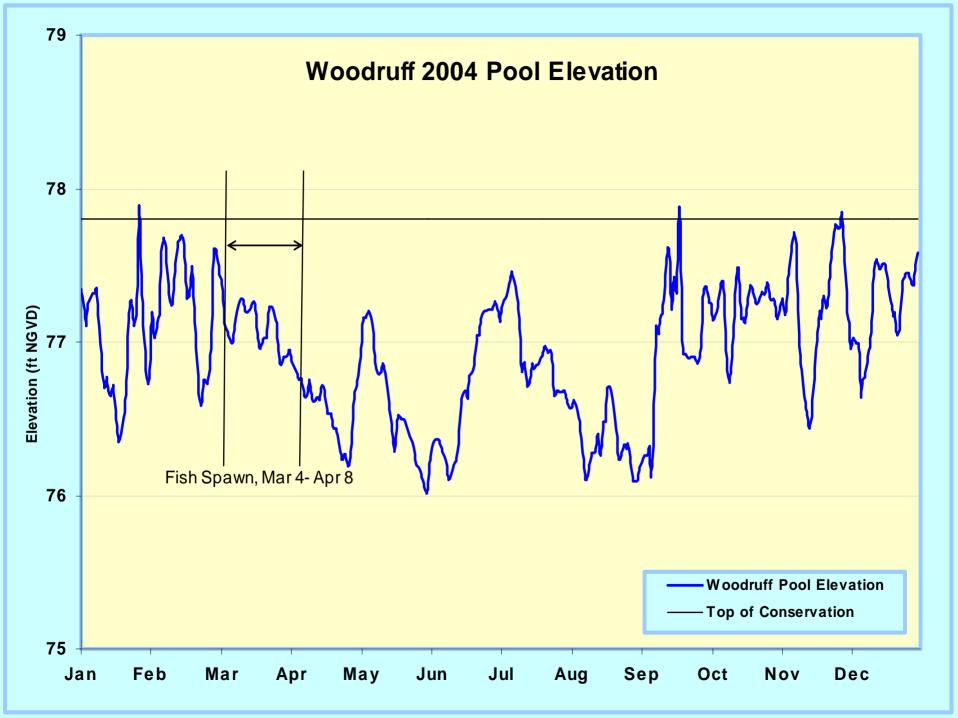


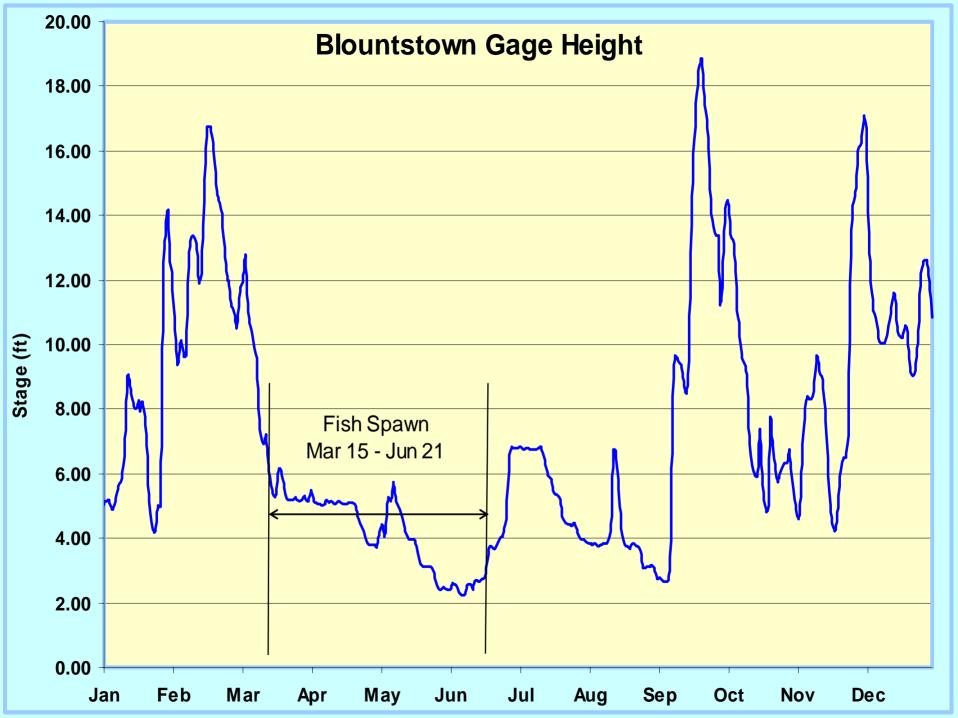












Basin Inflow and Outflow - 2004 Spawn Season

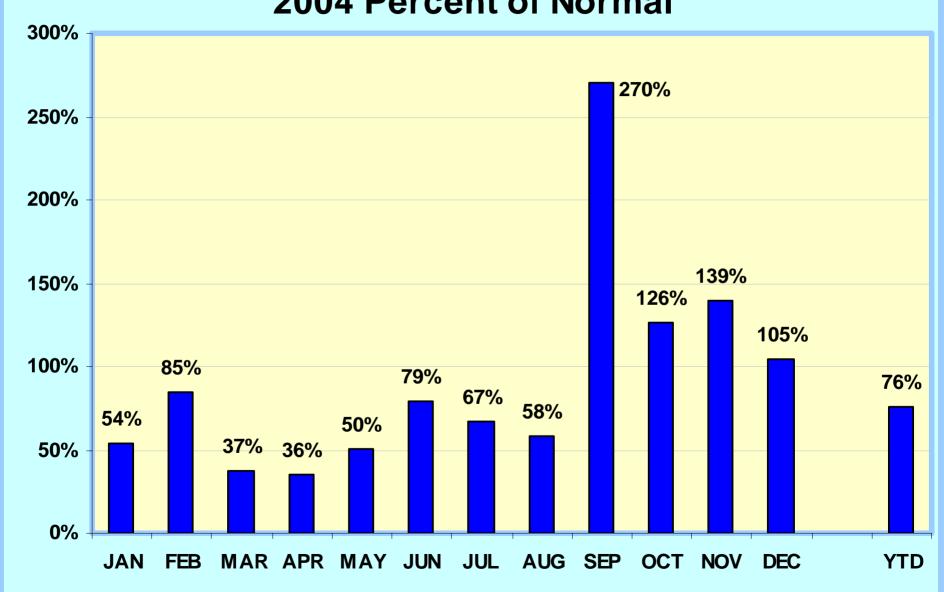
- 2004 inflows in perspective
- Bi-monthly Inflow Outflow Charts
 - Sum of all project inflows
 - Jim Woodruff outflow
 - 3-day moving average

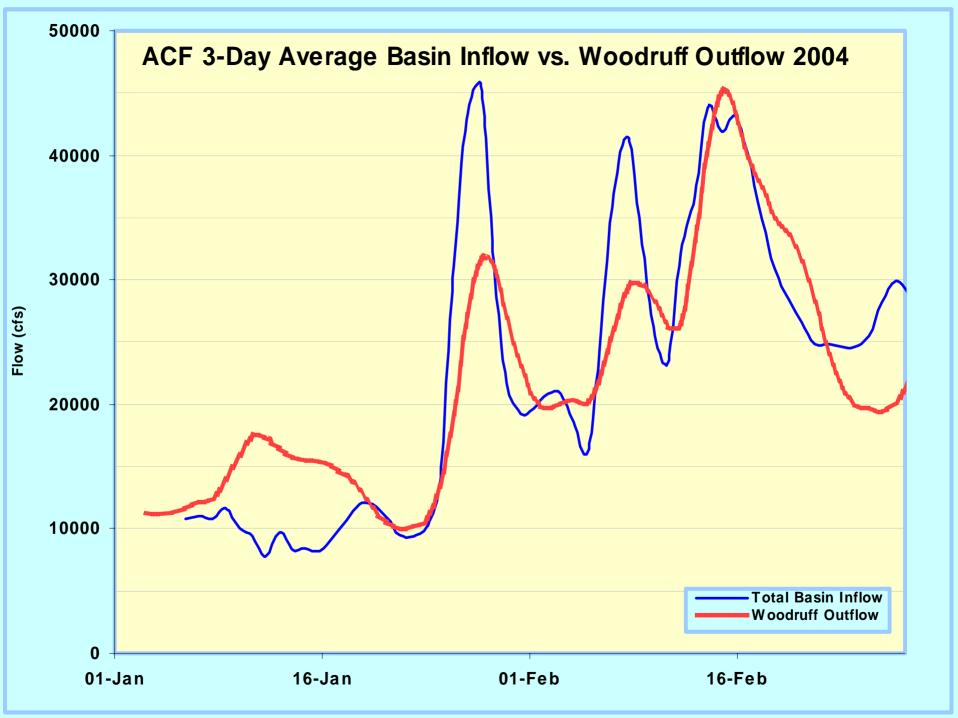


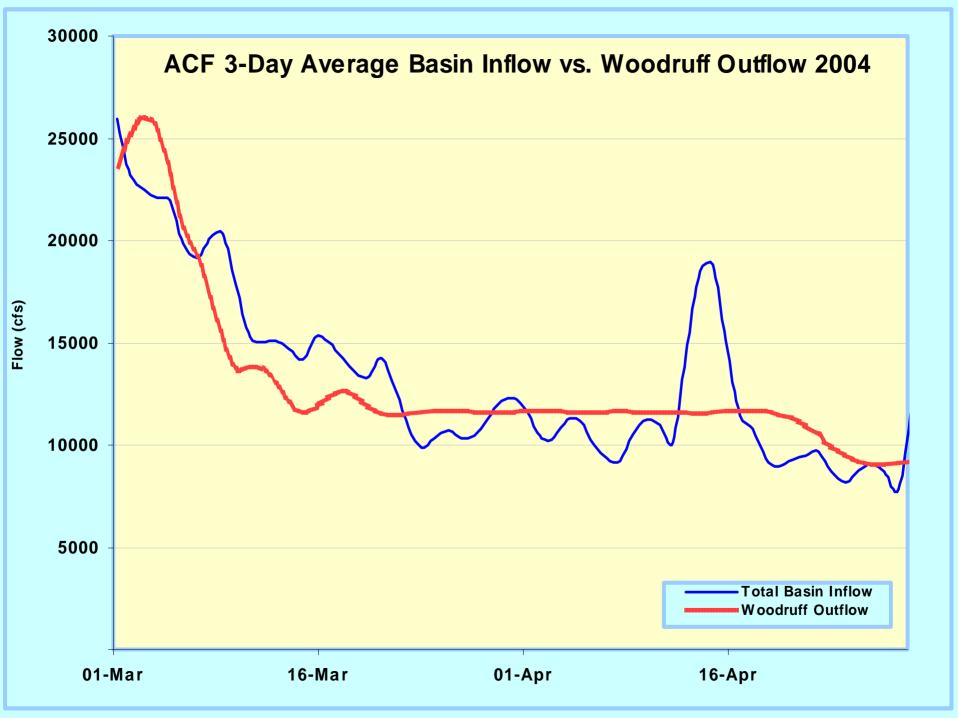


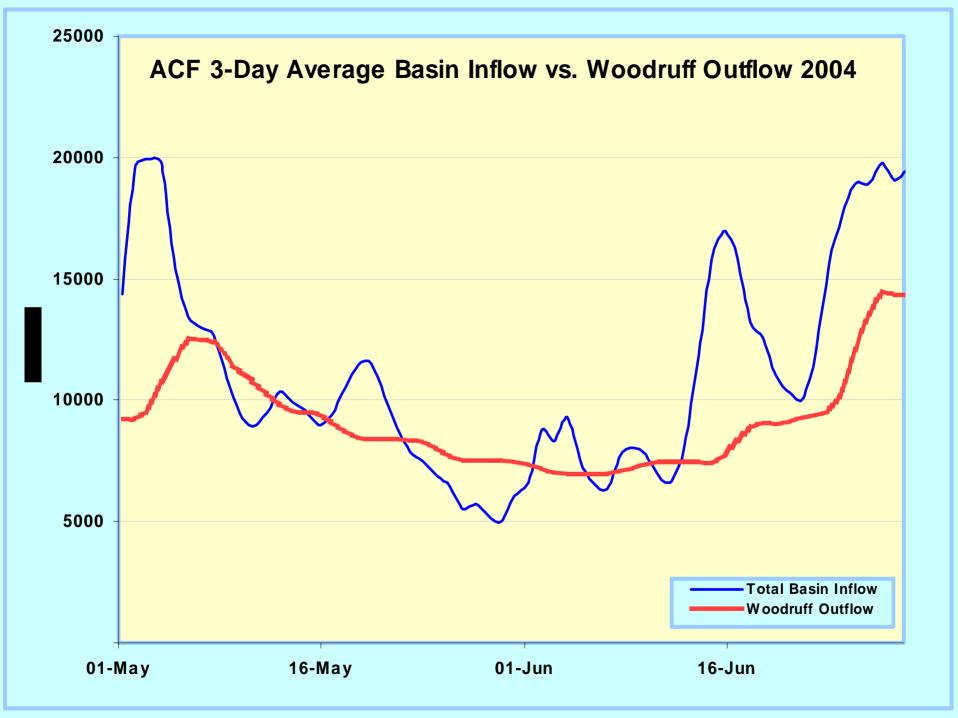








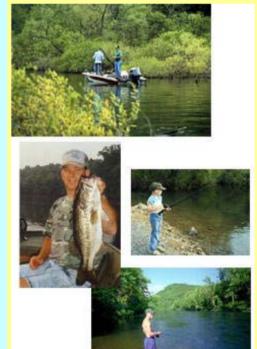




2005 Current Conditions and Outlook

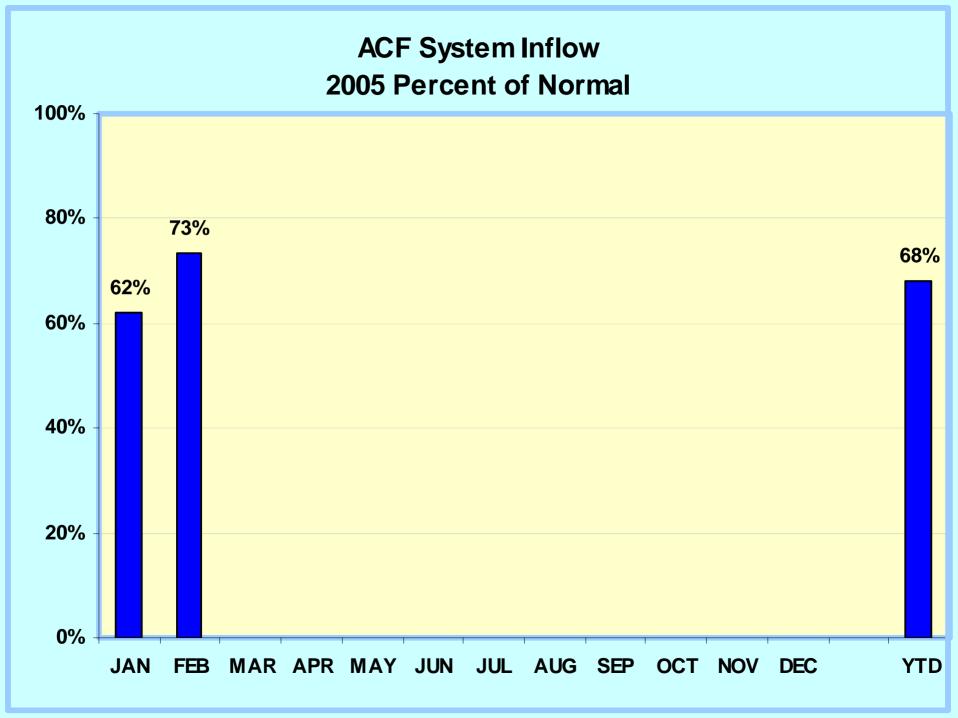
- Current Inflow Perspective
- 4 week Projections
 - Buford
 - West Point
 - George
 - Woodruff
 - Blountstown

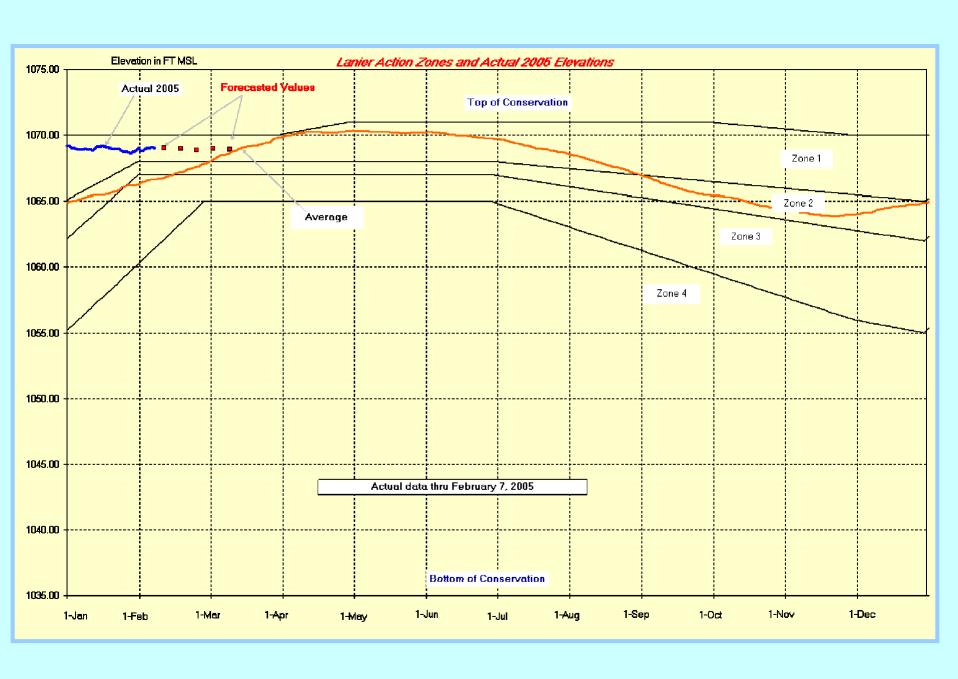


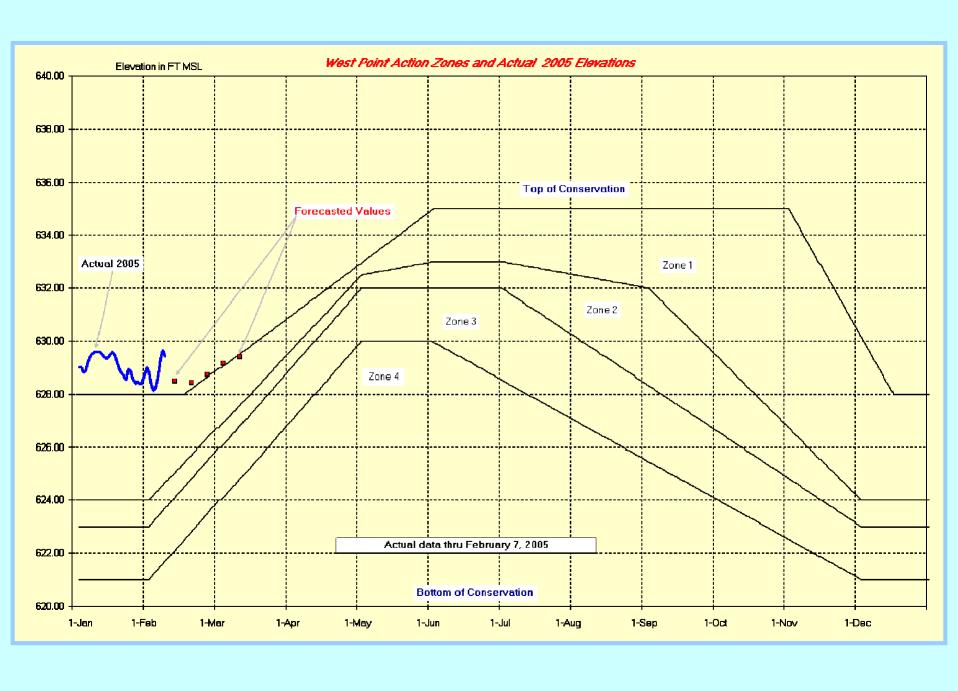


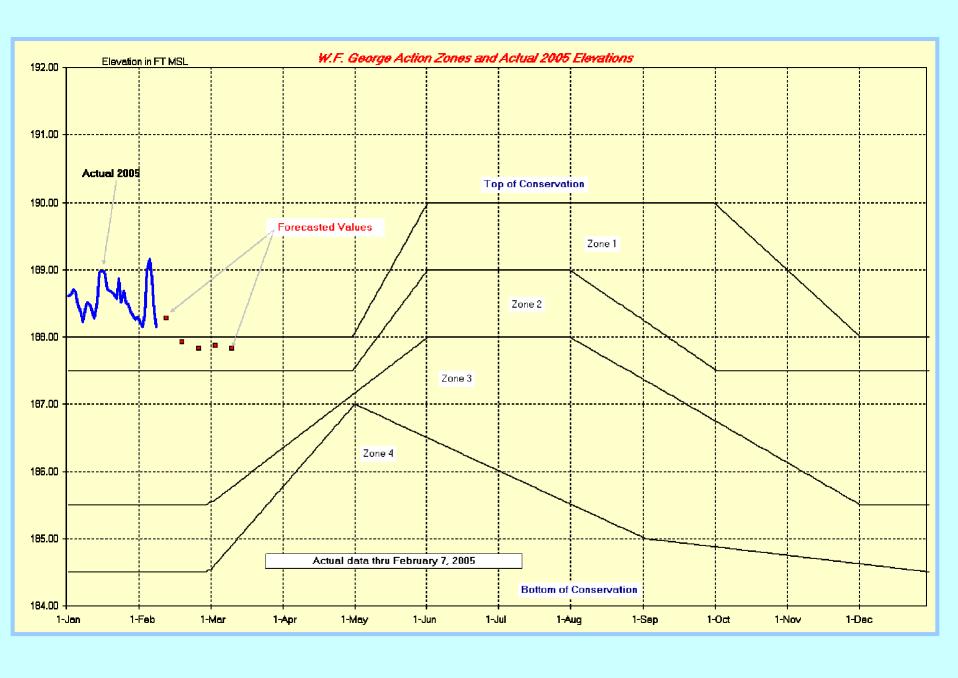


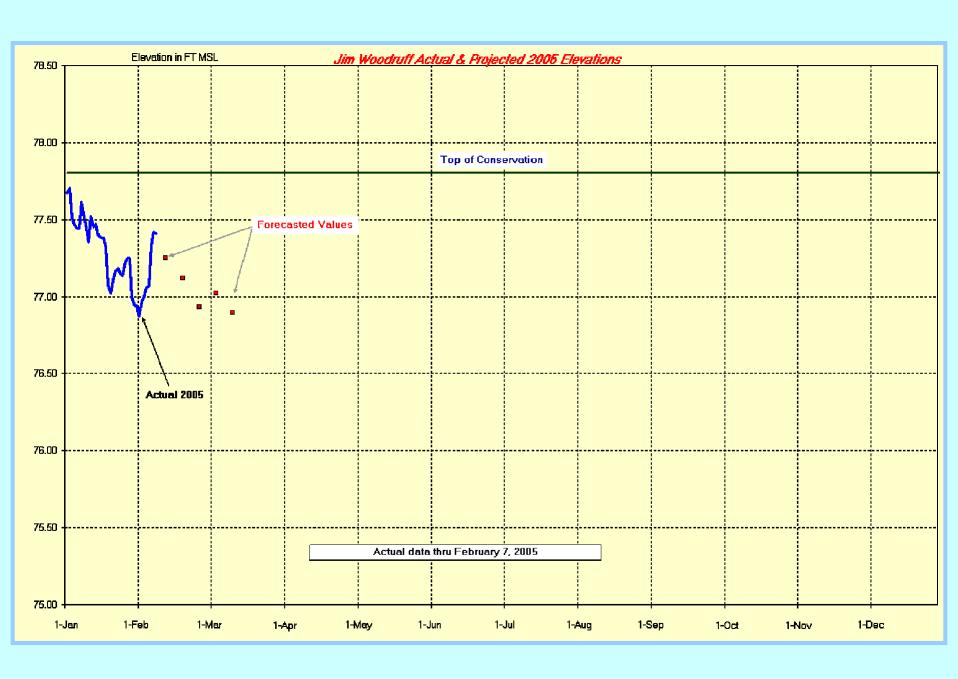


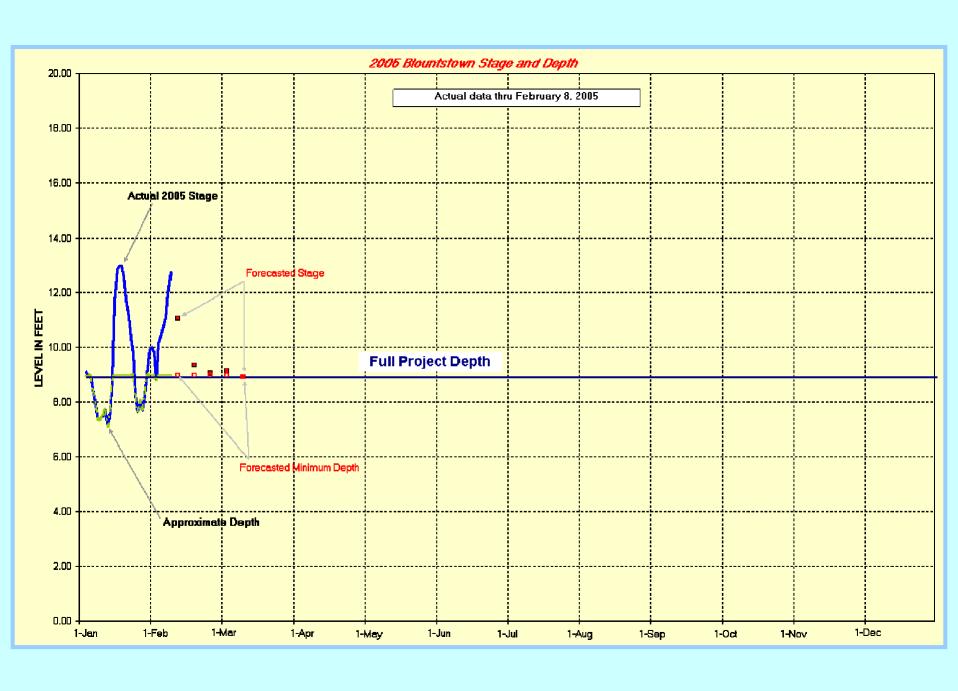


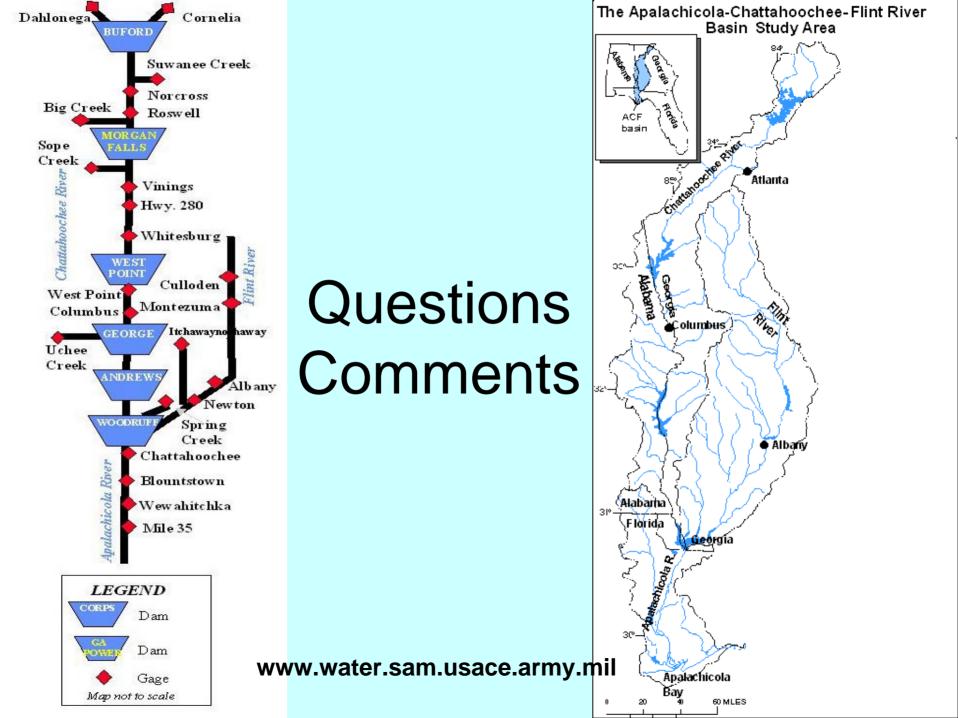








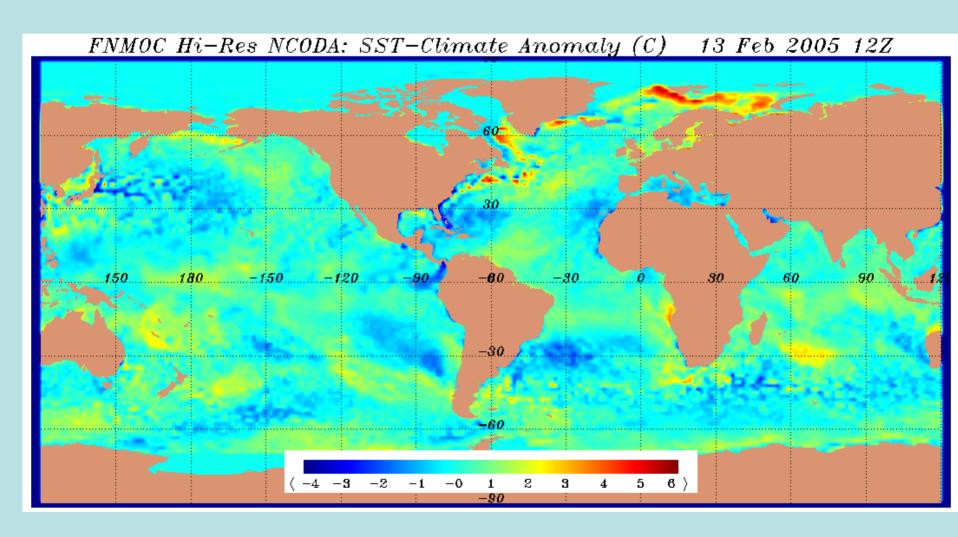


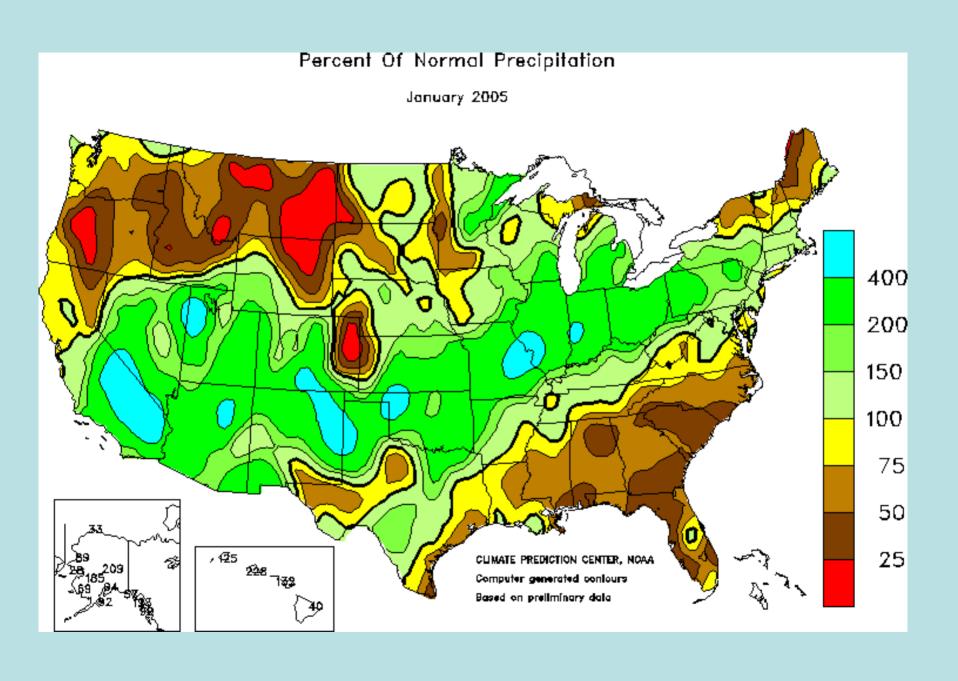


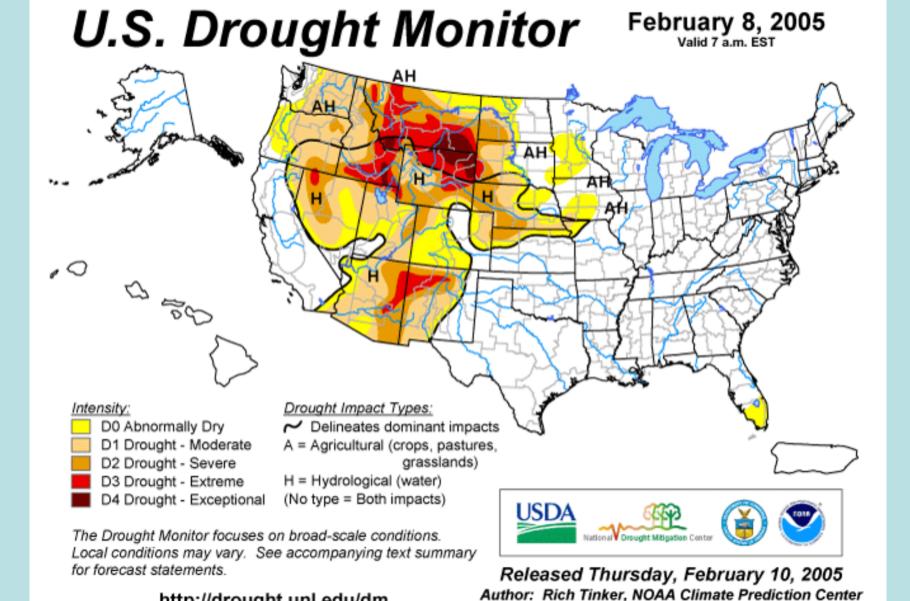
Southeast U.S. Climate Outlook

Rob Erhardt

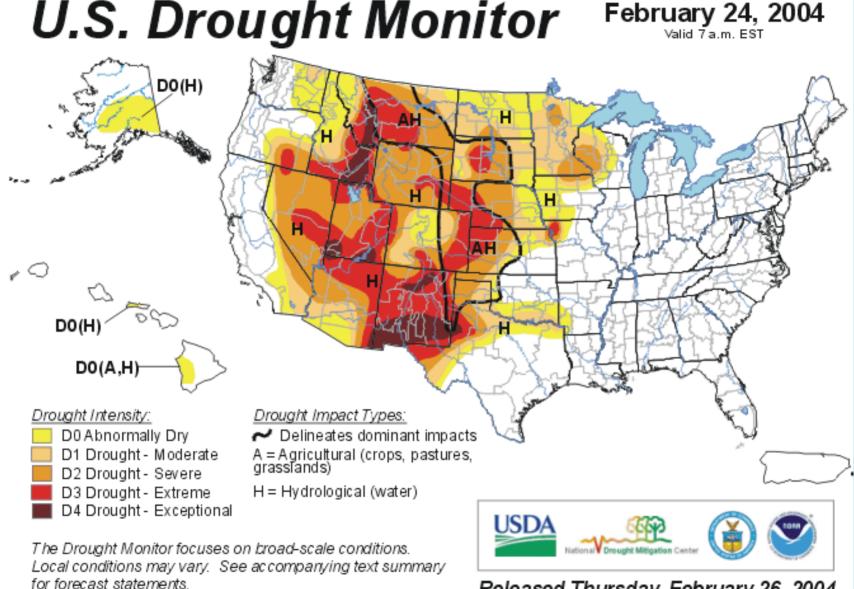
Sea Surface Temperature Anomalies



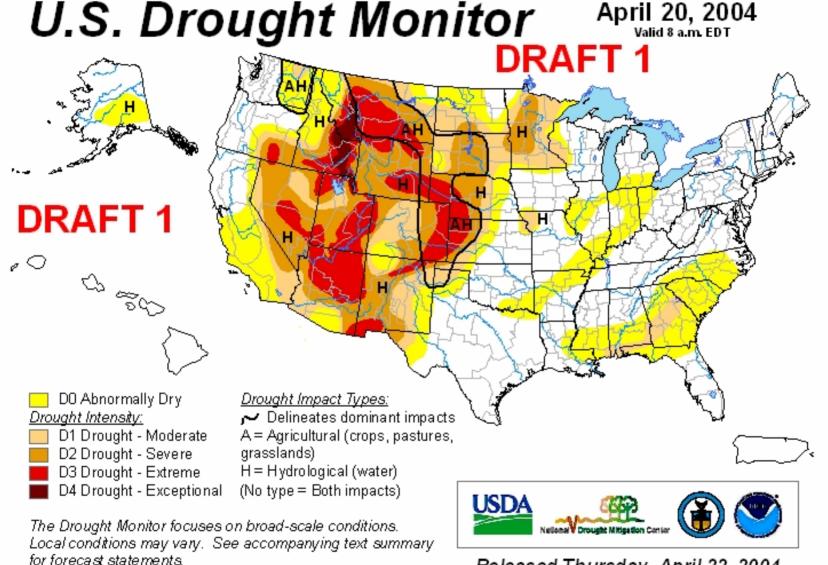




http://drought.unl.edu/dm

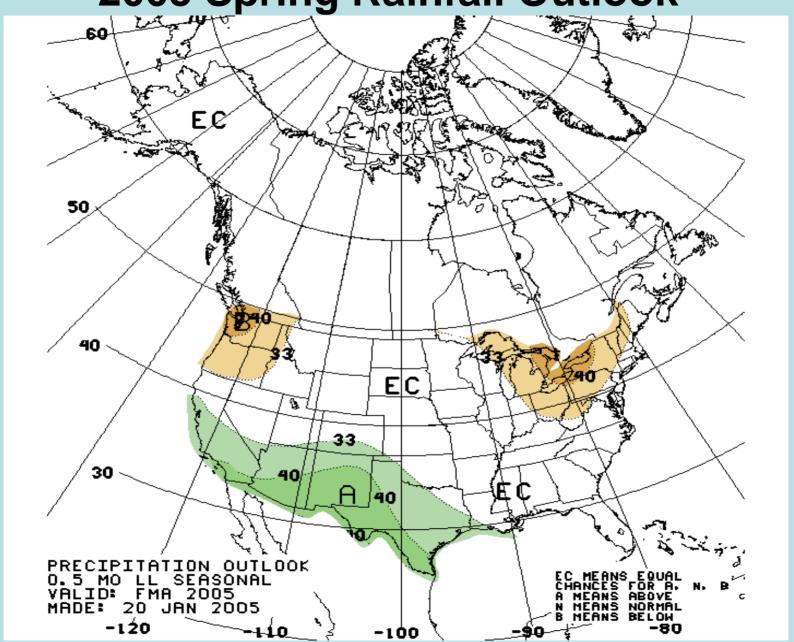


Released Thursday, February 26, 2004 Author: Richard Heim/Candace Tankersley. NO AA/NCDC



http://drought.unl.edu/dm

Released Thursday, April 22, 2004 Author: Michael Hayes, NDMC **2005 Spring Rainfall Outlook**



DRAFT FEB 2005

CESAM-OP-TR

SAM SOP 1130-2-9 XX Month Year

DEPARTMENT OF THE ARMY Mobile District, Corps of Engineers P.O. Box 2288 Mobile, Alabama, 36628-0001

Project Operations RESERVOIR REGULATION AND COORDINATION FOR FISH MANAGEMENT PURPOSES

- 1. <u>Purpose</u>. To provide a standing operating procedure (SOP) to be followed by Mobile District staff and selected Operations Division field offices to implement South Atlantic Division Regulation DR 1130-2-16, Project Operations, Lake Regulation and Coordination for Fish Management Purposes. This SOP (1) identifies designated periods of time within which fish spawn operations will be conducted at specific projects, (2) establishes protocols for coordination between the U.S. Fish and Wildlife Service (FWS), State fisheries personnel, and the Corps, and (3) provides for development of an annual plan for special water management operations by the Corps, in coordination with the FWS and the State fisheries agencies, that would balance impacts and benefits to both reservoir and riverine fisheries during the spring fish spawning period. This SOP is intended to benefit multiple sport fish and forage fish species having similar spawning habits.
- 2. Applicability. This SOP applies to the operation of Allatoona Lake, Okatibbee Lake, Lake Sidney Lanier, West Point Lake, Walter F. George Lake, Lake Seminole, and the Apalachicola River. In addition to project office staffs, technical and support staffs in the Mobile District Office have significant roles in the successful implementation of this SOP. Key offices are listed below.

Operations Division OP-TR
Planning and Environmental Division PD-EI
Engineering Division EN-HW
Public Affairs Office PA

3. References.

- a. ER 1130-2-540, Environmental Stewardship Operation and Maintenance Polices, Chapter 2, Natural Resources Stewardship.
- b. EP 1130-2-540, Environmental Stewardship Operation and Maintenance Guidance and Procedures, Chapter 2, Natural Resources Stewardship

- c. ER 1130-2-550, Recreation Operation and Maintenance Polices, Chapter 3, Project Master Plans and Operational Management Plans.
- d. EP 1130-2-550, Recreation Operation and Maintenance Guidance and Procedures, Chapter 3, Project Master Plans and Operational Management Plans.
- e. DR 1130-2-16, Lake Regulation and Coordination for Fish Management Purposes.
- f. DR 1130-2-18, Preparation of Operational Management Plan at Civil Works Water Resources Projects.
- g. Executive Order 12962, Recreational Fisheries, 7 June 1995.

4. Procedures.

In most water years it will not be possible to hold both reservoir levels and river stages at a steady or rising level for the entire spawning period, especially when upstream reservoirs and/or the Apalachicola River spawning periods overlap. Droughts and floods within the basin also present specific water management challenges. During the spawning period applicable to each water body (paragraph 4(b)), the Corps shall operate for generally stable or rising reservoir levels, in accordance with the guidance of DR 1130-2-16, and generally stable or gradually declining river stages on the Apalachicola River, for approximately 4 to 6 weeks during the designated spawning period for the specified project area. Generally stable or rising levels are defined as not lowering the reservoir levels by more than 6 inches, with the base elevation generally adjusted upward as levels rise due to increased inflows or refilling of the reservoir. Generally stable or gradually declining river stages are defined as ramping down of ½ foot per day or less. When these management goals are not possible, impose an unreasonable compromise to other project purposes, or would conflict with other fish management concerns within the basin, the Corps shall consult with the State fishery agencies and the FWS on balancing needs within the system and minimizing the impacts of fluctuating reservoir or river levels. Modifications to fish spawn operations could include readjusting the base elevation for fish spawn operation purposes at a particular project, allowing a rapid lowering in elevation back to the base elevation or a readjusted elevation following a flood event, or other operational adjustments recommended by the interagency team to minimize impacts and/or enhance system-wide benefits. The Corps shall also consult with the State fishery agencies and the FWS on water management operations that would minimize fishery impacts and balance needs throughout the system for the remaining portions of the fish spawn periods. The Corps shall schedule management responsibilities that conflict with operating for stable or rising reservoir levels or relatively stable river stages outside the fish spawning period to the extent practicable, consistent with other applicable laws and regulations.

a. In February of each year Mobile District staff representatives will meet with the fisheries biologists from Alabama, Florida, Georgia, Mississippi and the FWS to discuss

projected spring and summer trends, anticipated hydrological conditions within the basin, success of the past year's fish spawn, and ways to balance fisheries priorities between reservoir and river systems during the upcoming spawning season. An imbalance of prey and forage fish could occur following the second or third year of poor or unsuccessful spawning and recruitment, leading to poor sport fishing. Areas where the spawns were recently unsuccessful should be given higher priority for fish management operations under low water conditions.

b. The periods during which the Corps shall operate to achieve the purposes of this SOP are as follows:

		Principal Fish	
Administrative Office	Project/Water Body	Spawning Period for	
		Operational	
		Consideration	
ACF PROJ MGMT OFFICE	Walter F. George Lake	15 March – 15 May	
	Lake Seminole	01 March – 01 May	
	Apalachicola River	01 April – 01 June	
ALLATOONA PROJ MGMT OFFICE	Allatoona Lake	15 March – 15 May	
LANIER PROJ MGMT OFFICE	Lake Sidney Lanier	01 April – 01 June	
OKATIBBEE PROJ MGMT OFFICE	Okatibbee Lake	01 April – 01 June	
WEST POINT PROJ MGMT OFFICE	West Point Lake	01 April – 01 June	

- c. Project personnel shall contact local State fisheries management personnel responsible for their project areas prior to the initiation of the identified spawning period and keep in close contact with them throughout the spawning period. PD-EI shall contact and maintain coordination with the State of Florida fisheries management personnel regarding initiation and status of fish spawning on the Apalachicola River. Information regarding the actual progress of fish spawn (i.e., has started, is in progress, is in peak, or has ended) should be relayed by project personnel to the Mobile District Office through OP-TR, and reported to EN-HW and PD-EI during the weekly water management meetings.
- d. EN-HW will consider hydrologic conditions within the basin, recommendations from the State fisheries management agencies and FWS, and status of fish spawn at other locations within the basin to schedule fish spawn operations for each project area (reservoir or river system) within the basin. The goal will be to provide generally stable or rising levels on the reservoirs and/or generally stable or gradually declining river stages on the Apalachicola River for approximately 4 to 6 weeks during the spawning period identified for each water body. Efforts to minimize fishery impacts and balance fishery resource and other project needs within the basin during the remaining portions of the spawning periods will also consider recommendations from the State fishery management agencies and FWS. A summary of the status of fish spawn operations at each project (including date and elevation at initiation and completion of fish spawn operations) will be posted on the Mobile District Water Management website.

- e. EN-HW will notify the PA office when fish spawning season begins and will invite PA to specific weekly water management meetings when important decisions having public impact are likely to be made. PA will advise the news media within 24 hours of notification of any specific water management actions that are potentially detrimental to the fish spawn, including an explanation of the reasons for the water management actions.
- f. OP-TR will maintain an updated list of State and FWS fisheries biologists for the lake and river projects. OP-TR personnel will attend weekly water management meetings during the spawning period, relay pertinent information relating to the status of fish spawn or other fish management concerns to EN-HW, PD-EI and PA, and send weekly, either by e-mail or telephone, water conditions data to appropriate State and FWS fisheries personnel. OP-TR and PD-EI will consult telephonically with State and FWS fisheries personnel as necessary, and include project personnel in the consultation as appropriate. Any significant decisions based on the weekly water management meetings will also be relayed telephonically or by email to State fisheries personnel, FWS, project personnel, and South Atlantic Division personnel by OP-TR. PD-EI will advise any environmental groups or other interested stakeholder groups of the proposed action. At the conclusion of the spawning period, OP-TR will forward a summary report of the annual fish spawn operations to State fisheries management agencies, FWS, and South Atlantic Division, with a copy to PD-EI.
- g. OP-TR, EN-HW, PD-EI and PA will coordinate directly with each other or call additional meetings as the need arises.

Date	PETER F. TAYLOR, JR. Colonel, Corps of Engineers Commanding
DISTRIBUTION: B	

Points of Contact for Fish Management Operations Coordination SAM SOP 1130-2-9

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Email: alice lawrence@fws.gov

Larry Goldman Phone: 251-441-5181

Email: <u>larry_goldman@fws.gov</u>

Okatibbee: Mississippi contact Tom Holman Phone: 601-859-3521

Email: tcubedh@aol.com

USFWS contact: Ray Aycock Phone: 601-321-1122

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Lanier: Georgia contact: Reggie Weaver Phone: 770-535-5498

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