

Enclosure 15

Memorandum for Record
Annual Fish Management Coordination Meeting
7 February 2006

MEMORANDUM FOR RECORD

SUBJECT: 2006 Annual Fish Spawn/Fish Management Coordination Meeting

1. On 7 February 2006, 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 2005. Other topics discussed were the current status of hydrological conditions in the Apalachicola, Chattahoochee, Flint (ACF) river basins, and projected climatological and hydrologic conditions that should be considered to assist in making recommendations for water management operations in support of fish spawning activities in 2006. Another purpose of the meeting was to solicit suggestions on balancing fisheries priorities between reservoir and river systems during the upcoming spawning season based on recent spawn outcomes. The following representatives participated in the annual coordination meeting:

Rick Long, FWCC Midway, (850) 487-1645, eric.long@myFWC.com

Ramon Martin, GA-DNR Albany, (229) 430-4256, ramon_martin@dnr.state.ga.us

Rob Weller, GA-DNR Albany, (229) 430-4250, rob_weller@dnr.state.ga.us

Jerry Ziewitz, USFWS, Panama City, FL (850) 769-0552, Ext.-223, jerry_ziewitz@fws.gov

Gail Carmody, USFWS, Panama City, FL (850) 769-0552, Ext.-225, gail_carmody@fws.gov

Karen Herrington, USFWS, Panama City, FL (850) 769-0552, Ext.-250,

Karen_Herrington@fws.gov

Tom Sinclair, USFWS, Atlanta, GA (404)-679-7324, thomas_sinclair@fws.gov

Steve Herrington, TNC, Bristol, FL (850) 643-2756, sherrington@tnc.org

Nick Nichols, AL-DCNR Montgomery, (334) 242-3471, nick.nichols@dcnr.alabama.gov

Bill Stark, AL-DCNR Montgomery, (334) 683-4596, bill.stark@dcnr.alabama.gov

Dan Tonsmeire, Apalachicola Riverkeeper, (850)-653-8936, dan@abark.org

Matthew Lang, USACE-Mobile, Planning & Environ. (251)694-3837,

matthew.j.lang@sam.usace.army.mil

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

Cheryl Hrabovsky, USACE-Mobile, Water Mgt., (251) 694-4018, cheryl.l.hrabovsky@sam.usace.army.mil

2. Summary of 2005 Fish Spawn Operations. Cheryl Hrabovsky and Matt Lang began the discussions regarding fish spawn operations in 2005 in the ACF basin. A copy of our presentation slides is attached. For Lake Lanier/Buford Dam spawn operations were delayed until 4/20/05 due to an early spring flood on 3/27/05, and were concluded on 5/31/05. The minimum 4 week spawn window was extended an additional 11 days. West Point Lake fish spawn operations were conducted from 4/12/05 through 5/31/05. Again operations were delayed due to early spring floods at the end of March, and stable or gradually rising elevations were maintained throughout the period. Spawn operations

began on 3/22/05 at Walter F. George Lake but were halted due to an early spring flood on 3/27/05, and were reinitiated on 4/12/05 and ran through the end of May (5/31/05). Fish spawn operations were maintained for an extended period, a total of 6 weeks. The above lake levels approximated the rule curve during refill of the lakes for the fish spawn operations period. Levels were drawn down after rain events to the approximate rule curve elevation. Levels in Lake Lanier and Walter F. George Lake fell below the rule curve later in the spawn season, as lake levels remained steady due to use of storage to augment downstream flows. Lake Seminole/Jim Woodruff fish spawn operations began on 3/9/05 but were halted due to the spring flood on 3/27/05. Operations were reinitiated on 4/12/05 and were completed on 5/13/05. A total of 7 weeks were completed for Lake Seminole (3 weeks before the 3/27 flood, and 4 weeks after). 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 was delayed until 4/20/05 due to the flood event on 3/27/05. Fish spawn operations were maintained through 5/31/05, with approximately 5 weeks of stable or gradually declining stages. Due to declining basin inflows in May and concern that releases could fall below the recommended flows to support the threatened Gulf sturgeon, Mobile District initiated informal consultation with USFWS and the FWCC on 11 May 2005. In these consultation discussions, it was agreed to implement the low flow operations protocol developed during consultations on low flow conditions in 2004. This operations protocol consists of monitoring basin inflows over a 3-day average, and then managing to release at least the basin inflows, and was developed to assure that Apalachicola River fisheries were supported with at least the basin inflows into the system. Gradual step downs in releases were based on declines in the computed basin inflow, and the timing and rate of the stepdown in flows was reached collaboratively between USFWS and the Mobile District. The graph showing comparison of basin inflows with releases from Jim Woodruff Dam shows results of our operations during the fish spawn period; and in particular the attempts to provide at least basin inflows during the month of May when inflows fell below 20,000 cfs. In the latter part of May, releases to the Apalachicola River were augmenting flows above the basin inflows.

3. Summary of Pool and River Elevations for 2005. Cheryl provided graphical representations of the pool and river elevations for our 2005 Fish Spawn Management Operations. The graphs showed the pool elevations for the 8 week spawn period as an expression of their relation to the top of conservation for each reservoir.

4. Summary of basin Inflows and Outflows for 2005. Cheryl explained the average normal basin inflows and what percentage the basin actually received in 2005. Cheryl also had a graphical representation of inflows for the entire basin and also the outflows from Jim Woodruff Lock & Dam (JWLD). The two lines plotted across the same relative course throughout the graphs period (3/1/05 to 6/30/05). Cheryl then explained that the ACF has seen approximately 98% of normal basin inflows for January 2006.

5. Outlook for 2006 Hydrological/Climatological Conditions. Cheryl discussed the projected climatological conditions for 2006, as provided by our meteorologist Rob Erhardt. Rob provided Cheryl with a summary of the climatological conditions within

the southeastern United States and the river basins within Mobile District. In 2005 we experienced above average rainfall conditions during the spring months. We also experienced high rainfall amounts in the summer months due to the extremely active hurricane season of 2005. We have to date experienced very similar conditions for the month of January 2006 to those experienced in January 2005. However, there are mild drought conditions forecast for the southeastern states for 2006. We are however expecting another active hurricane season for 2006. Dr. William Gray from The National Hurricane Center has forecasted that there will be 17 named storms, 9 hurricanes with 5 being intense (category 3-5).

6. Recommendations for 2006 operations. Cheryl made mention that the operations folks at Lake Seminole have raised concerns about the operation of the gates at JWLD as it relates to the ½ foot step down on the Apalachicola River. The gates are currently being held open at a ½ of a step with the aide of a crane that is placed on the spillway. The concern rises from the use of the cranes and their evident wear and tear. Also, if the crane were to malfunction, the remainder of the spillway would be, in effect, cut-off and would make repair to the crane and gate a very daunting task. Suggestions were made that the possibility could arise that the hydropower generators at the dam could be used to augment the minimum flows needed downstream in the river. Jerry Ziewitz, from USFWS, said that he would be willing to help in the determination of whether or not this operational plan would suffice in our water management needs on the Apalachicola River. We also stated that we would operate under the same operating conditions as last year, per our Draft SOP 1130-2-9, and continue to consult with the USFWS and the states regarding low flow conditions.

Enclosures

MATTHEW J. LANG
Biologist
Inland Environment Team

**Summary of
Fish Spawn Operation
for 2005**

Fish Spawn Operation Dates

- Allatoona Lake 15 March - 15 May
- Okatibbee Lake (MS.) 01 April – 01 June
- Lake Sidney Lanier (Buford) 01 April – 01 June
- West Point Lake 01 April – 01 June
- Lake Eufaula (W. F. George) 15 March – 15 May
- Lake Seminole (Woodruff) 01 March - 01 May
- Apalachicola River (FL.) 01 April – 01 June

2005 Fish Spawn Operations

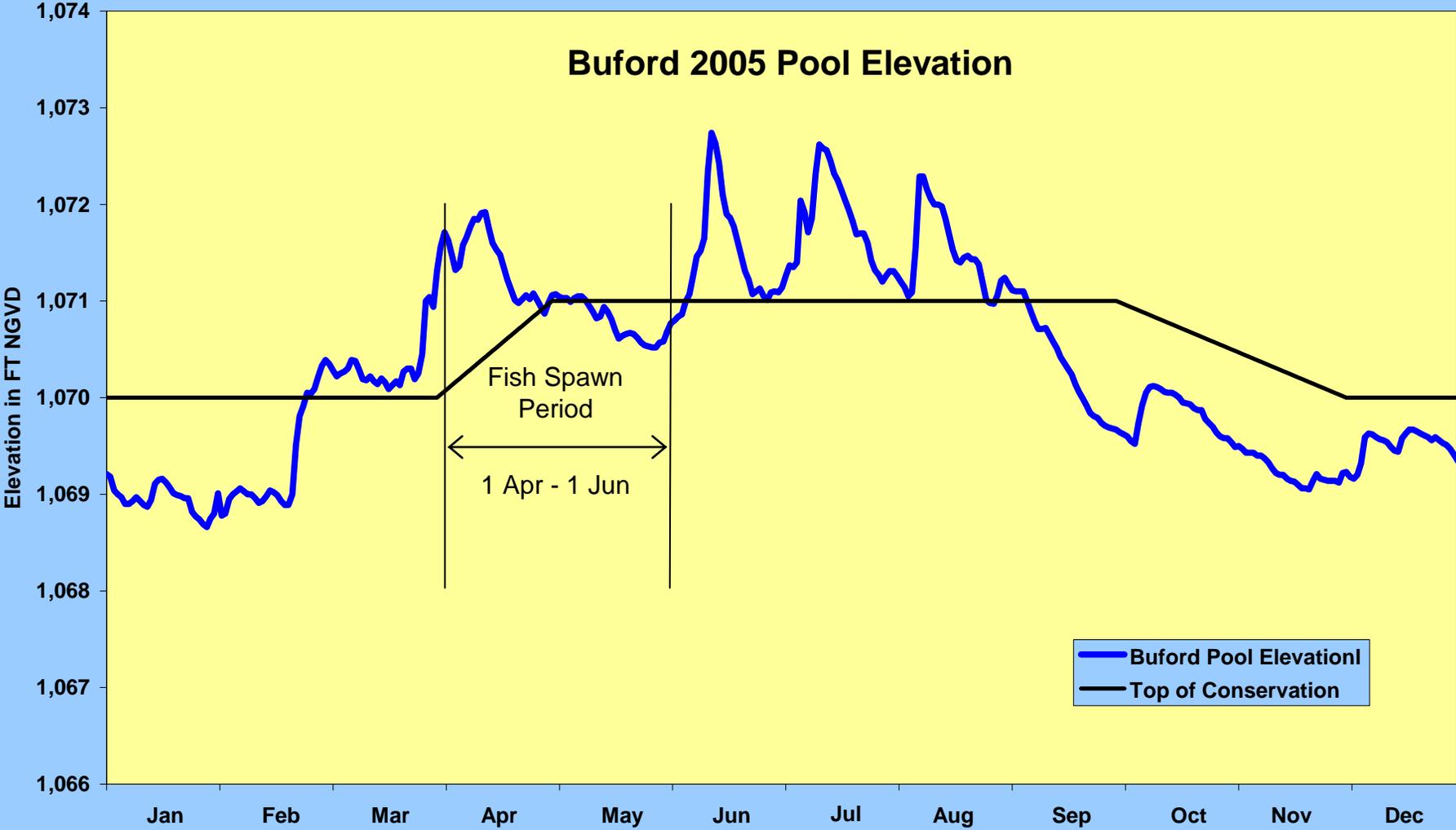
Project	Window	Start/End Dates
Allatoona Lake	15 March - 15 May	20 April – 31 May
Okatibbee Lake	01 April - 01 June	25 April - 31 May
Lake Lanier	01 April - 01 June	20 April - 31 May
West Point	01 April - 01 June	12 April - 31 May
Walter F. George	15 March - 15 May	12 April - 31 May
Lake Seminole	01 March - 01 May	12 April – 13 May
Apalachicola River	01 April - 01 June	20 April - 31 May

2005 Fish Spawn Operations

- Start dates were delayed due to early Spring floods in 2005
- The Corps met the 4 week minimum as stated in Draft SOP 1130-2-9, and extended longer where possible
- Weekly updates and coordination provided by email correspondence
- Corps, USFWS, & State Fisheries agencies all took part in telephone consultations to voice concerns and suggestions

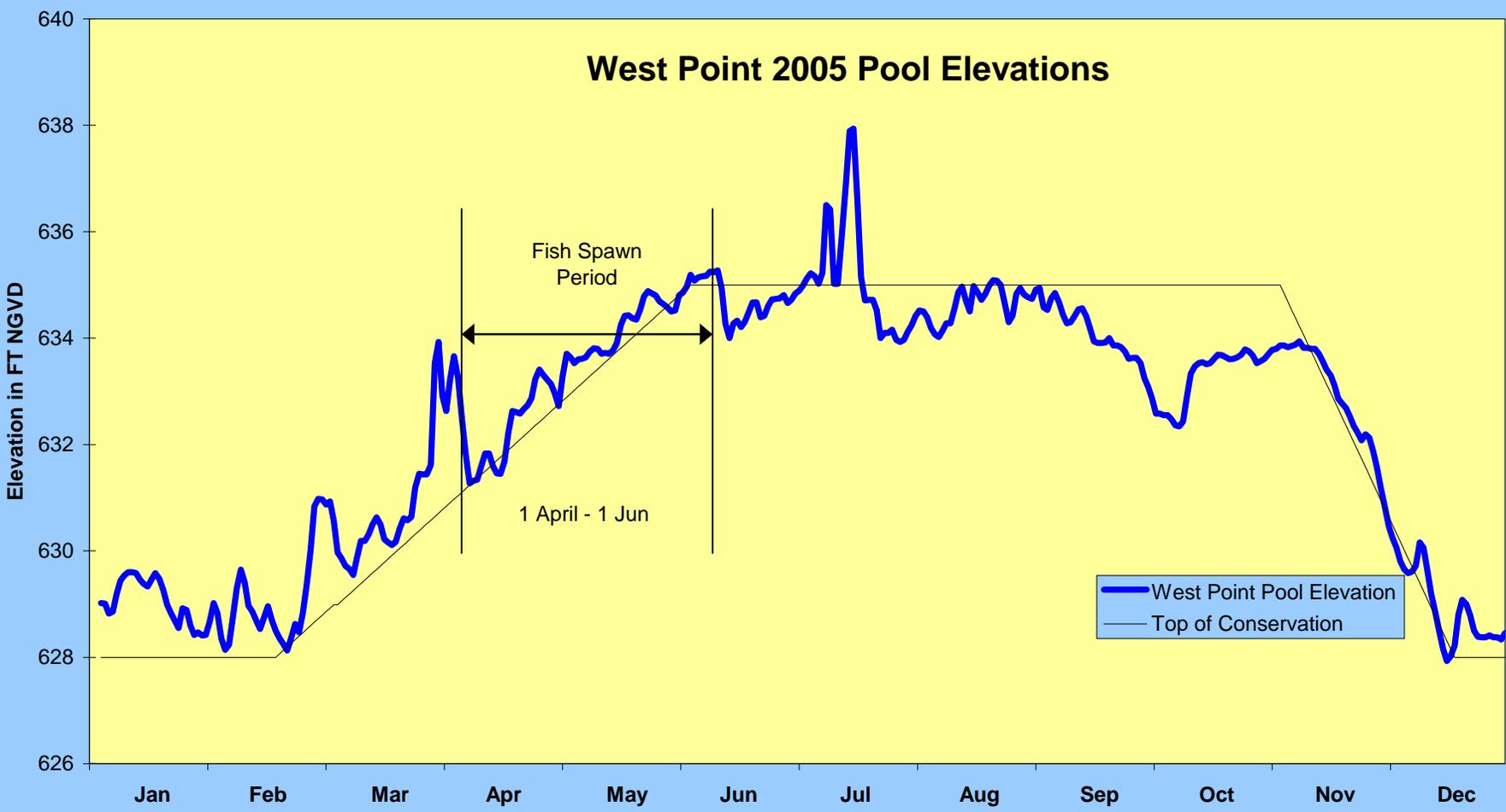
**Summary of
Pool and River
Elevations
for 2005**

Buford 2005 Pool Elevation



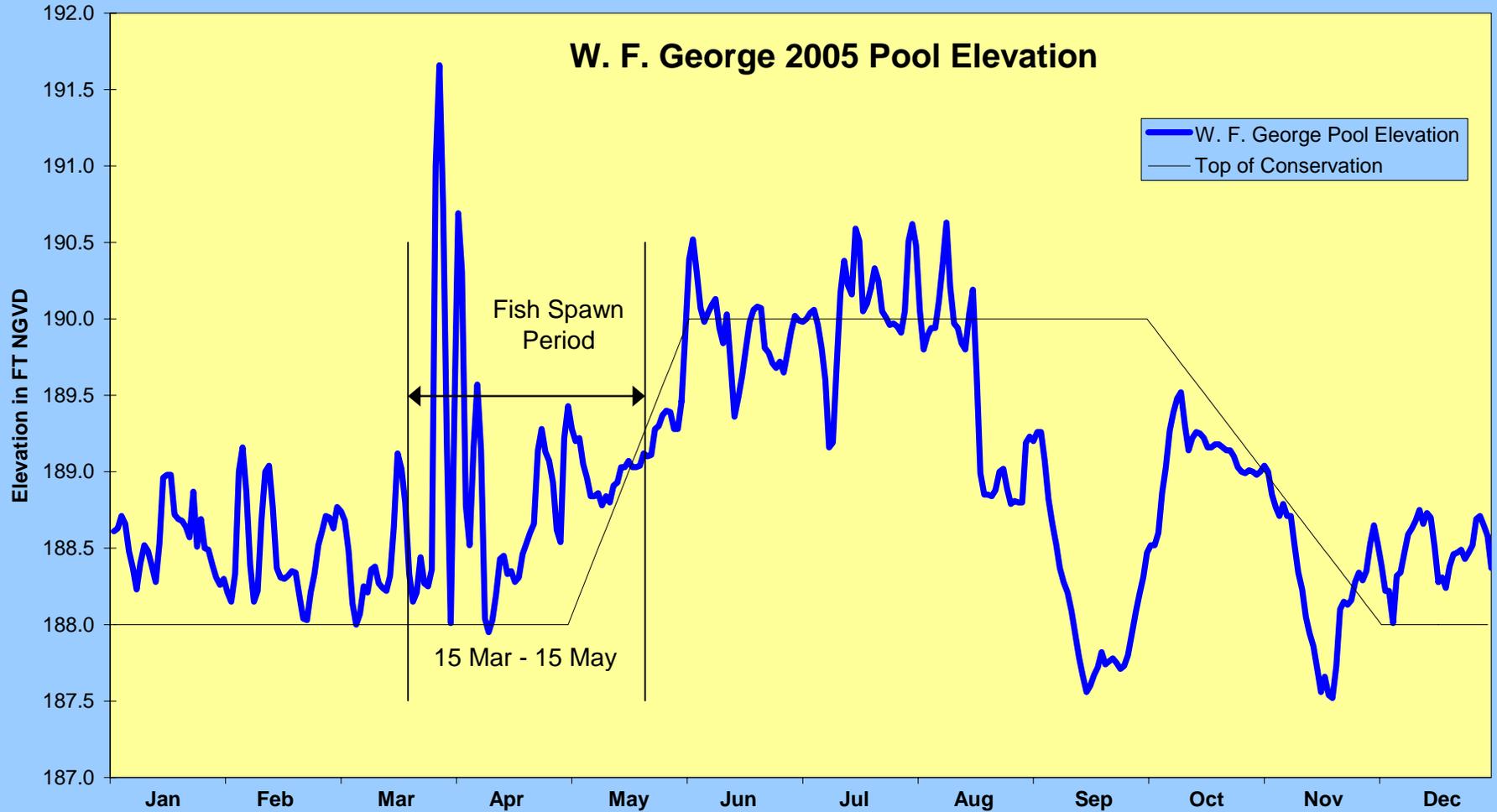
— Buford Pool Elevation
— Top of Conservation

West Point 2005 Pool Elevations

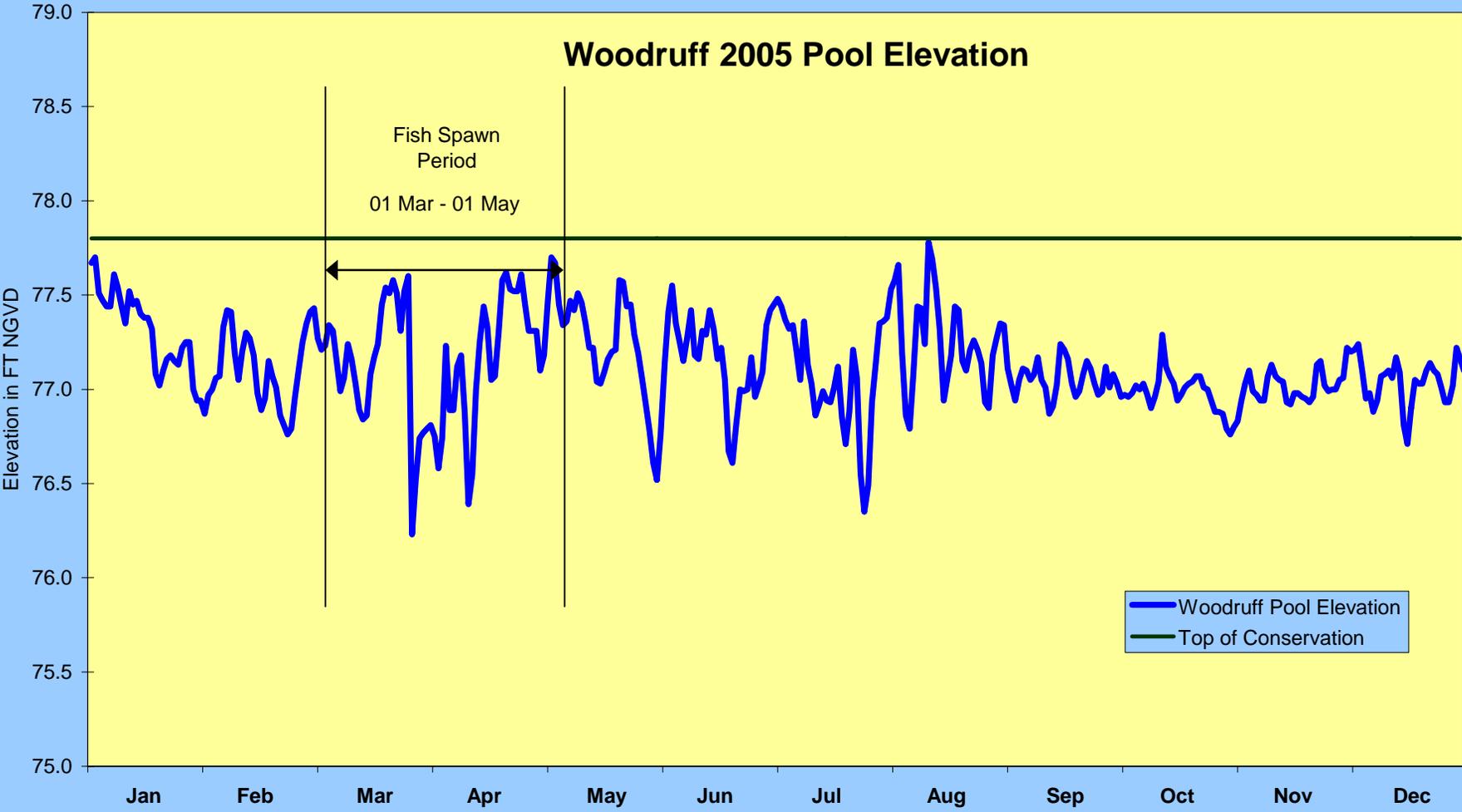


— West Point Pool Elevation
— Top of Conservation

W. F. George 2005 Pool Elevation

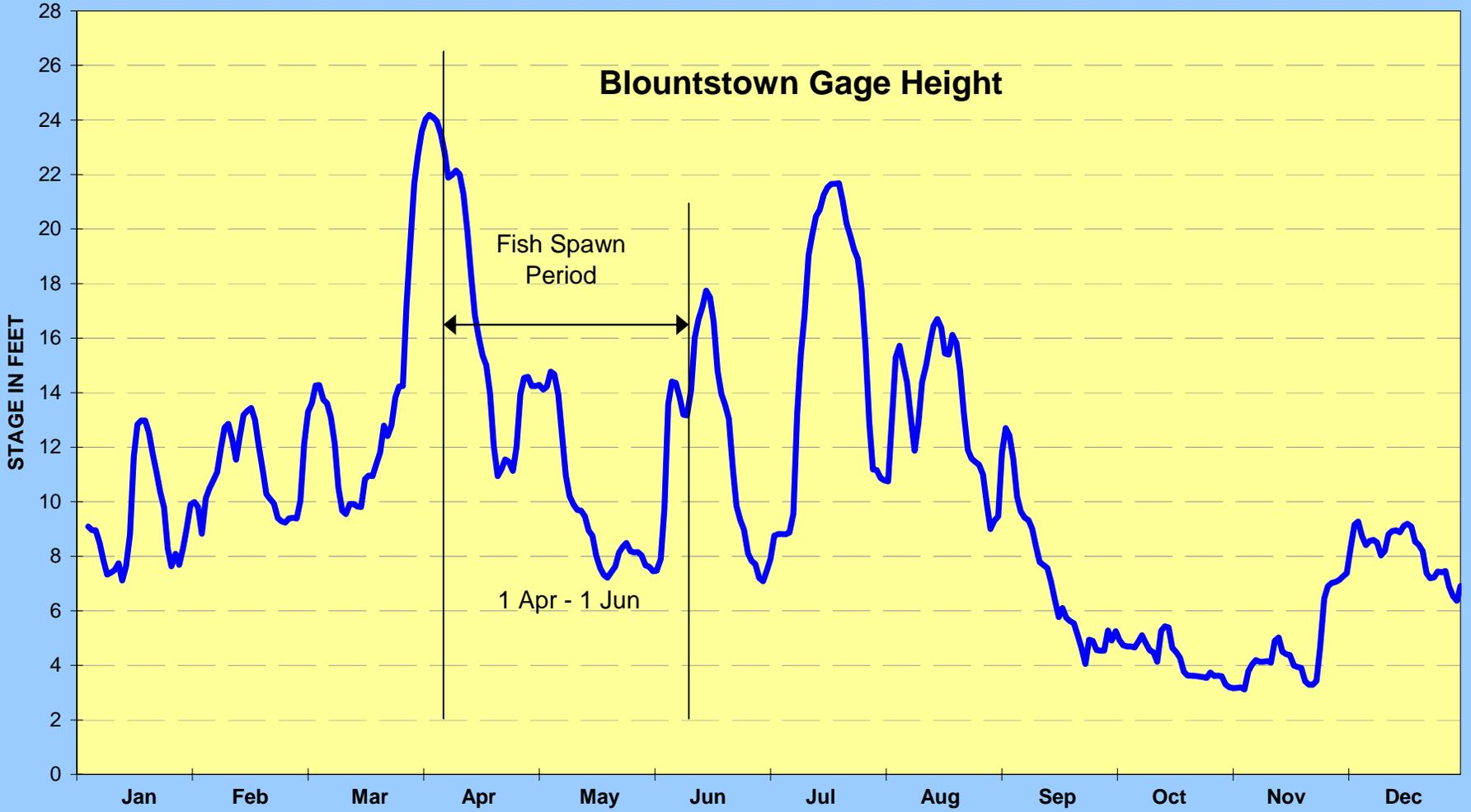


Woodruff 2005 Pool Elevation

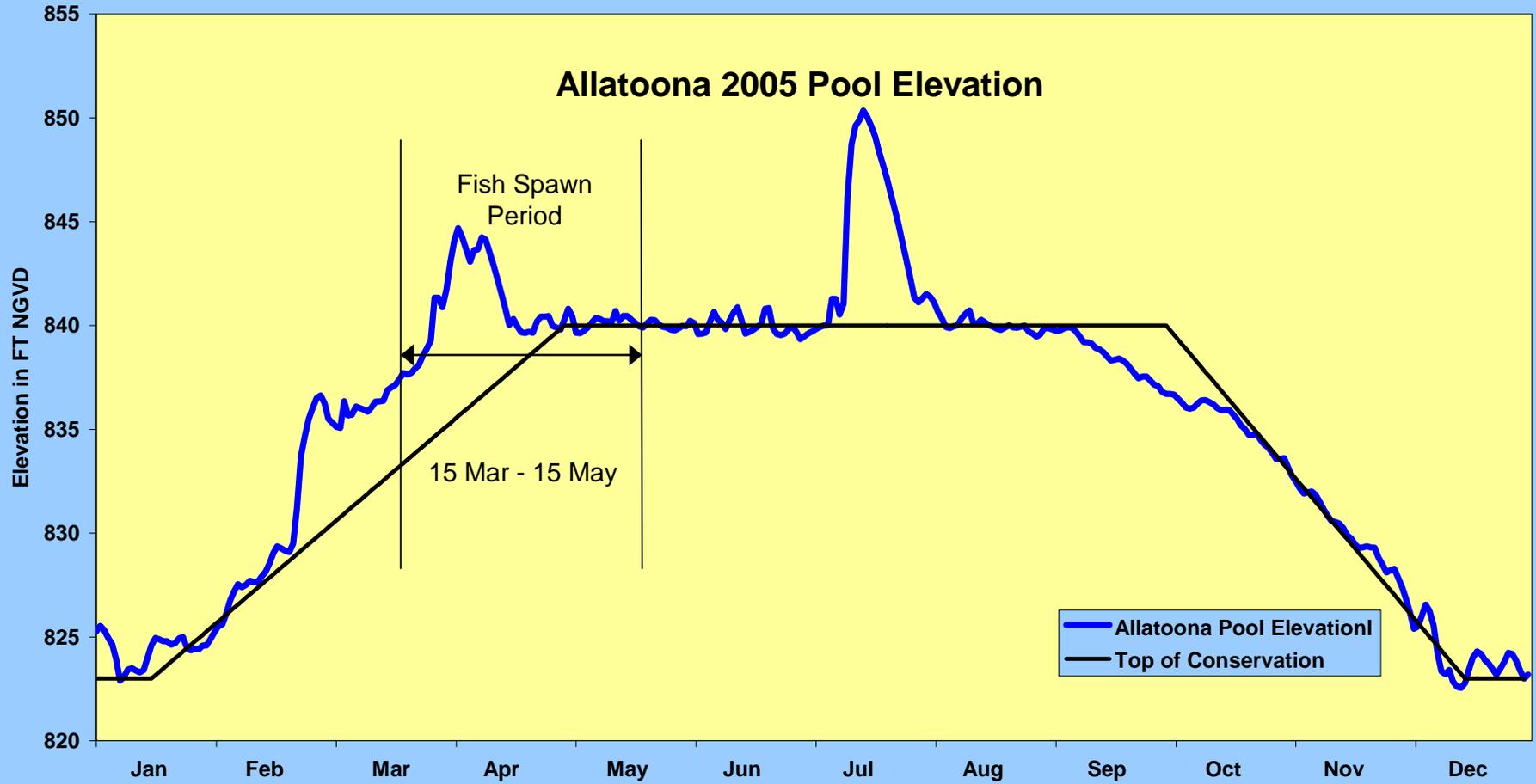


Woodruff Pool Elevation
Top of Conservation

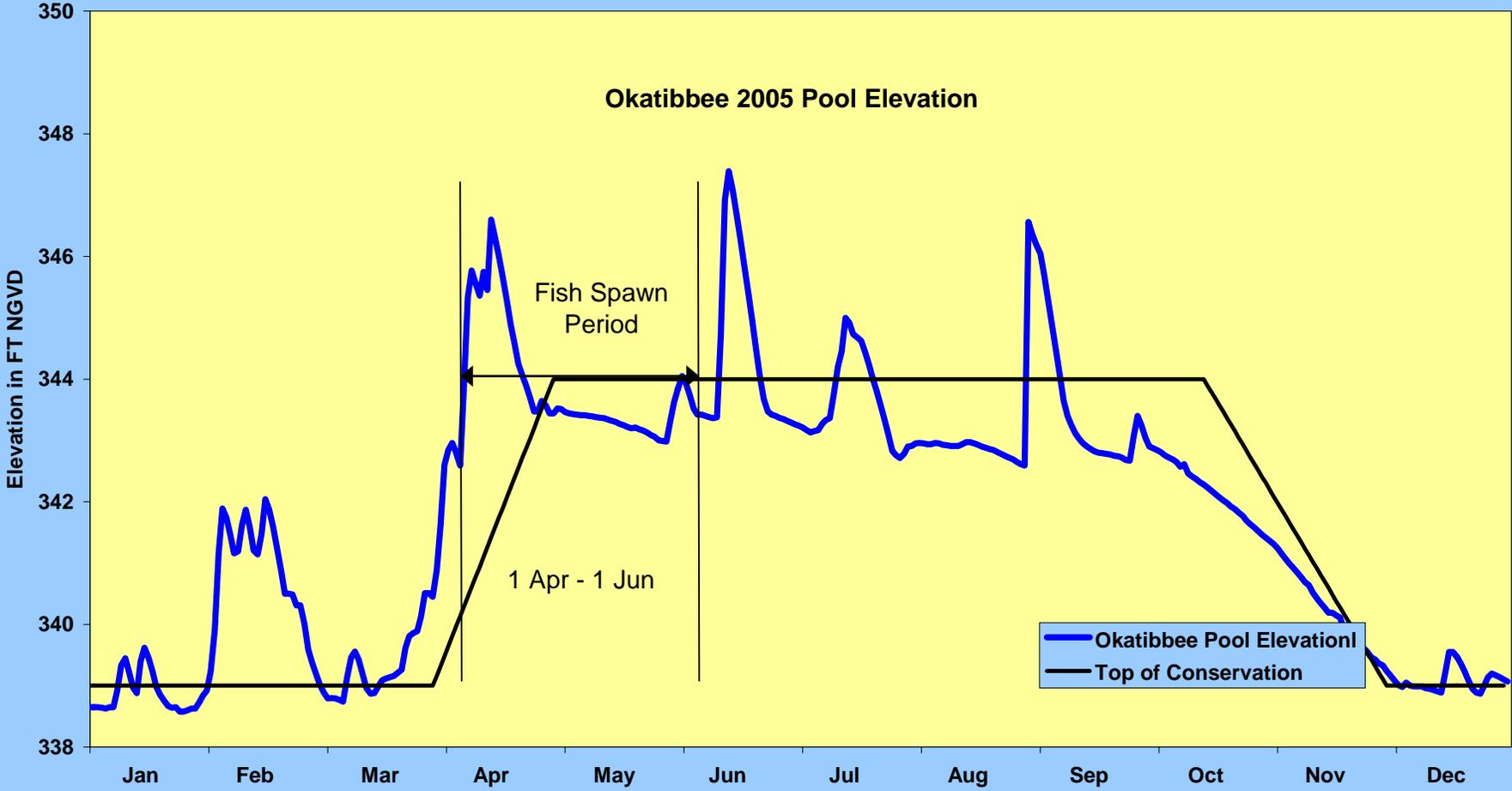
Blountstown Gage Height



Allatoona 2005 Pool Elevation



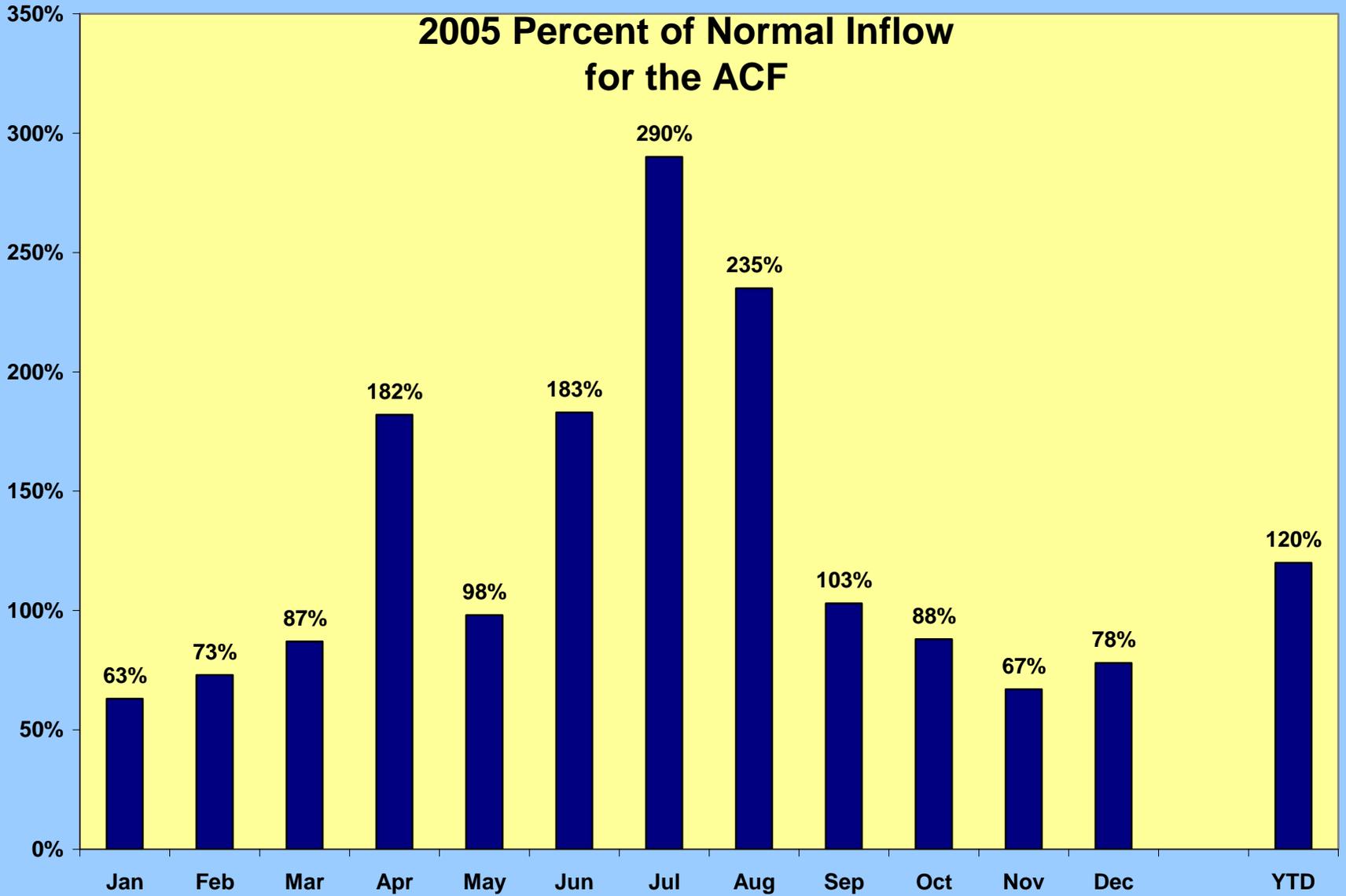
Okatibbee 2005 Pool Elevation

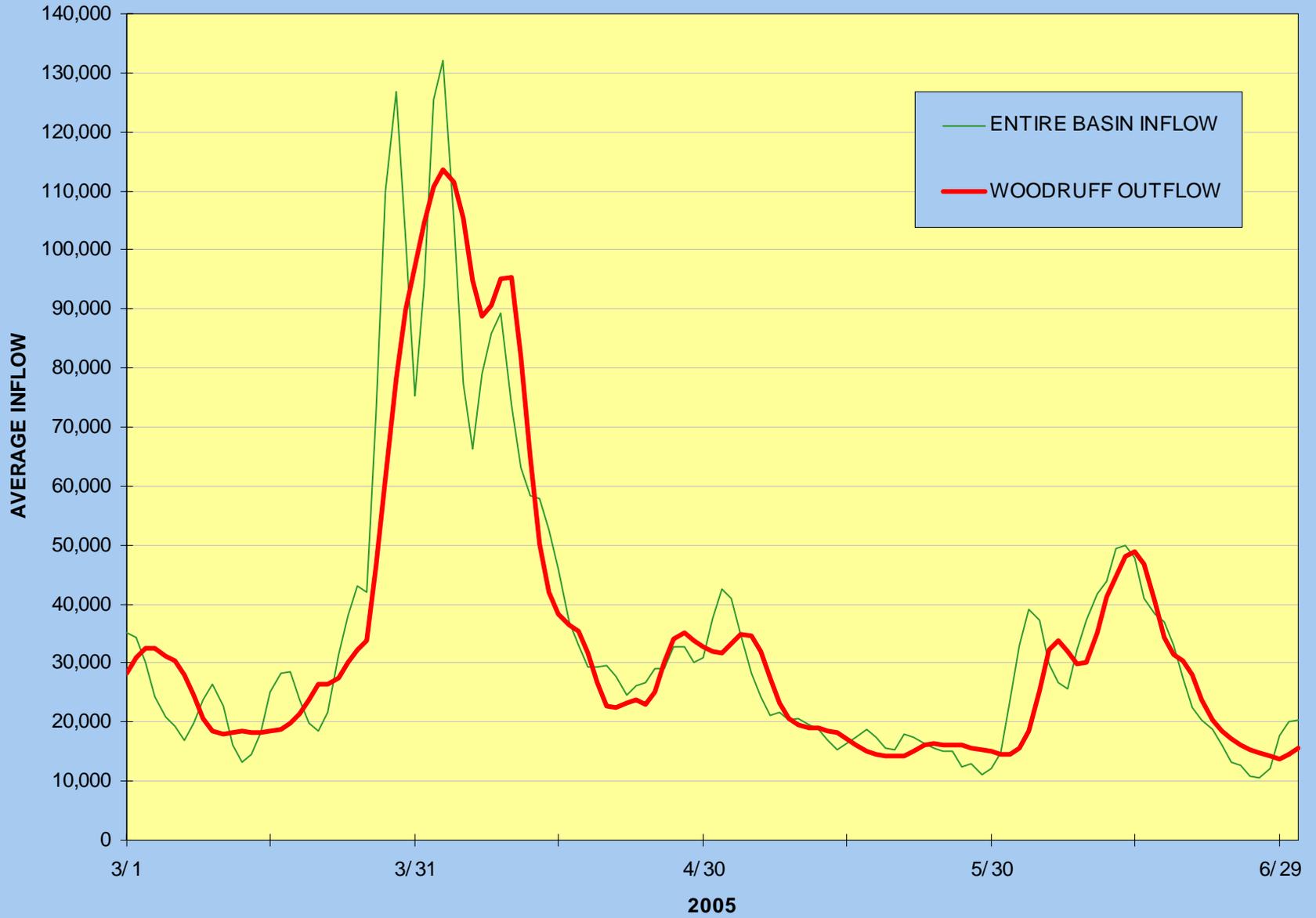


Okatibbee Pool Elevation
Top of Conservation

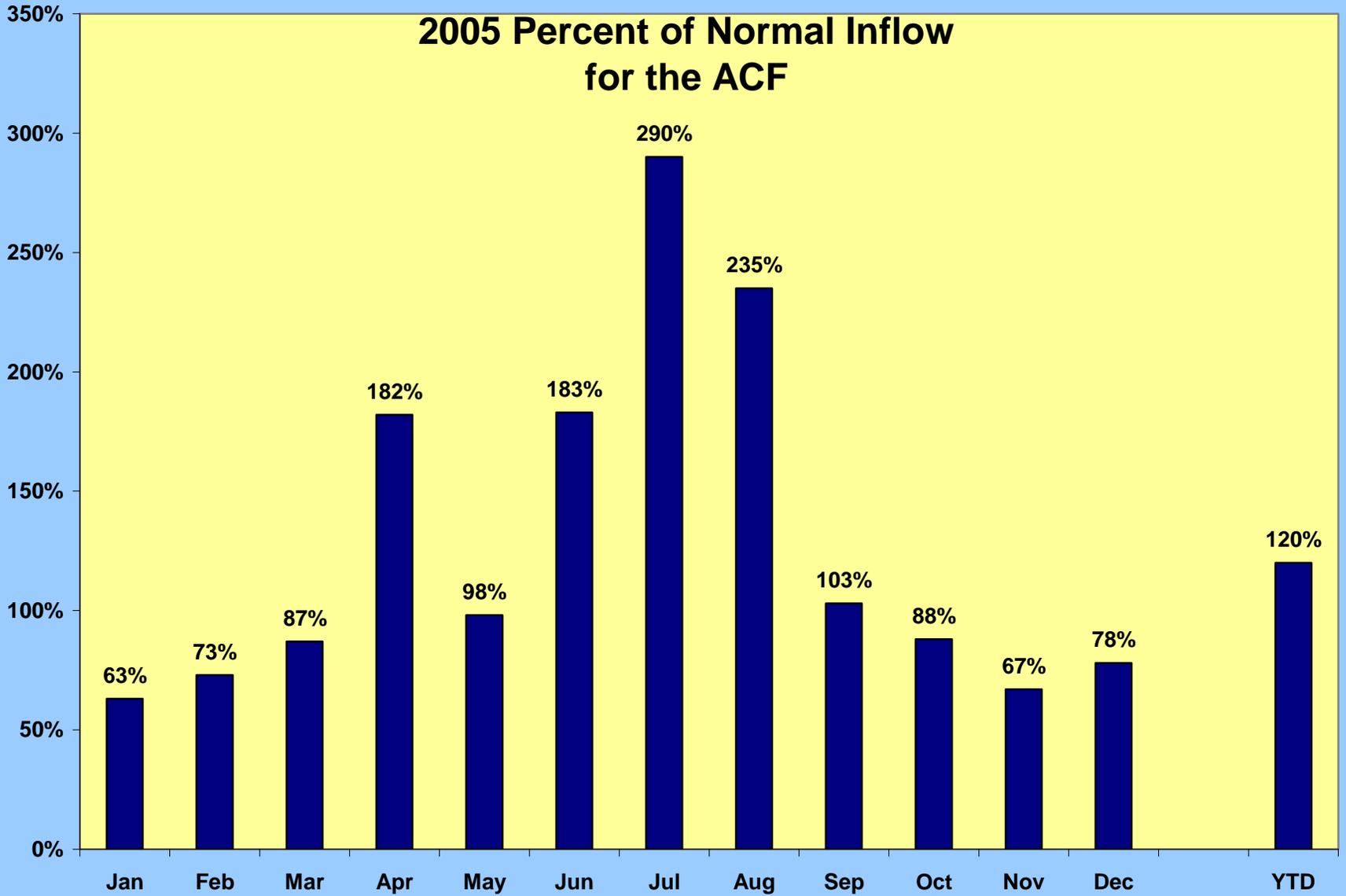
**Summary of
Basin Inflows and
Outflows for 2005**

2005 Percent of Normal Inflow for the ACF

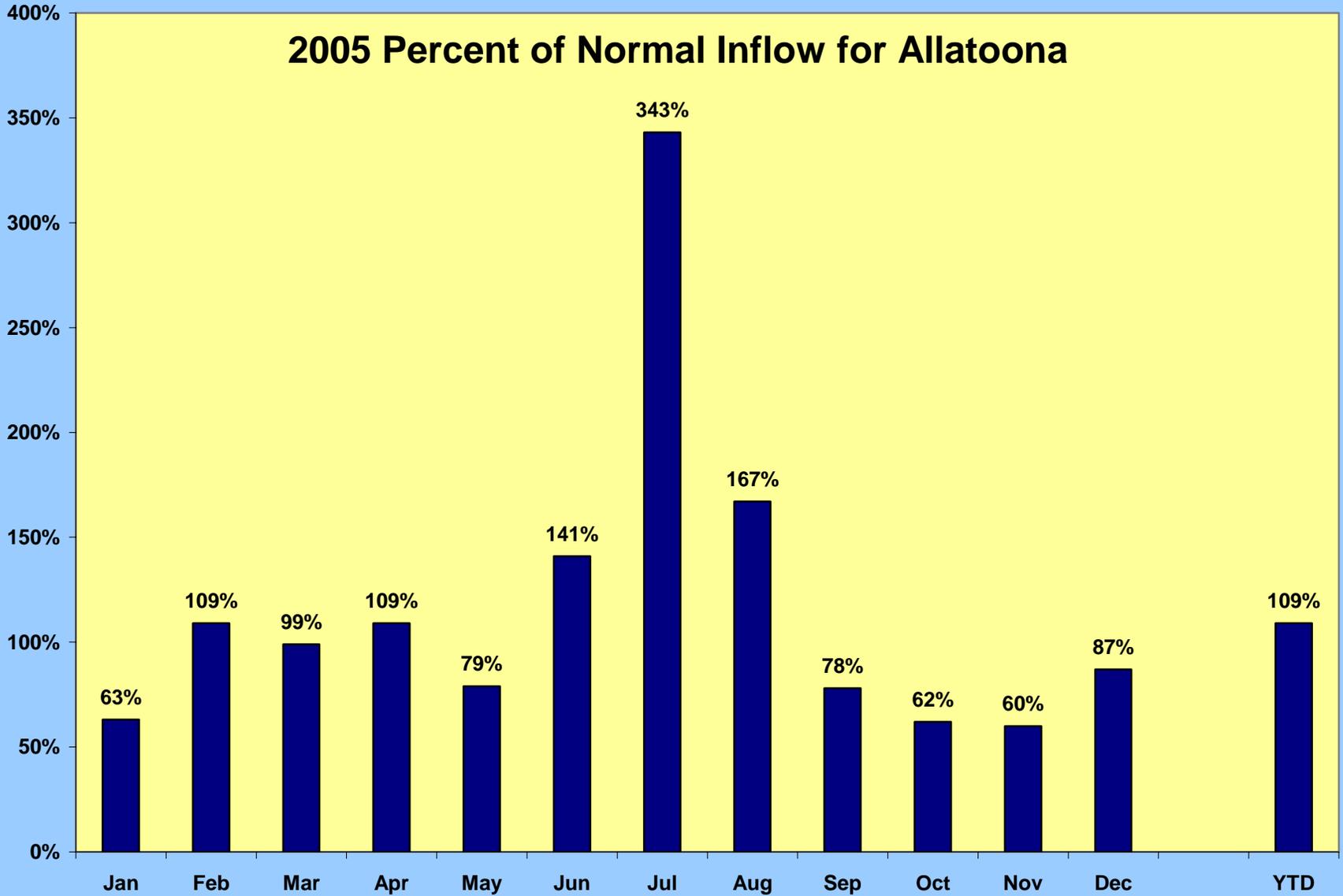




2005 Percent of Normal Inflow for the ACF



2005 Percent of Normal Inflow for Allatoona



2006 Basin Inflows

ACF = 98% for January

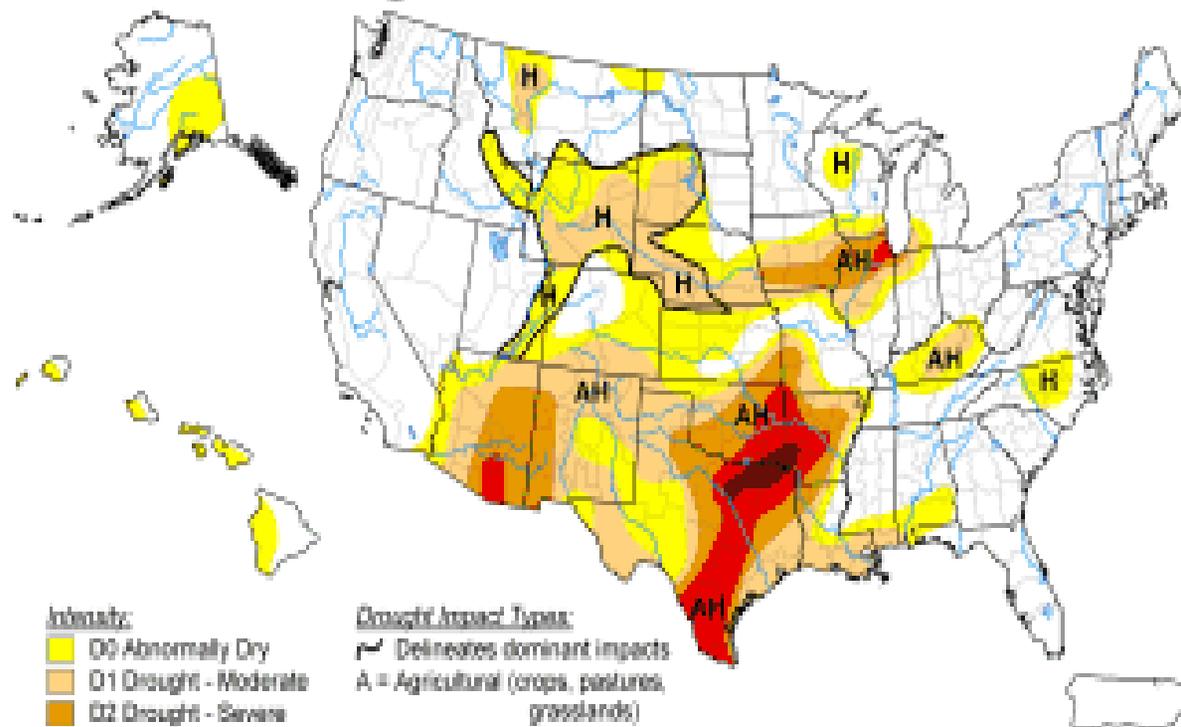
Allatoona = 89% for January

Southeast U.S. Climate Outlook

U.S. Drought Monitor

January 31, 2006

Valid 7 a.m. EST



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

Drought Impact Types:

- Delineates dominant impacts
- A = Agricultural (crops, pastures, rangelands)
- H = Hydrological (water)
- (No type = Both impacts)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>



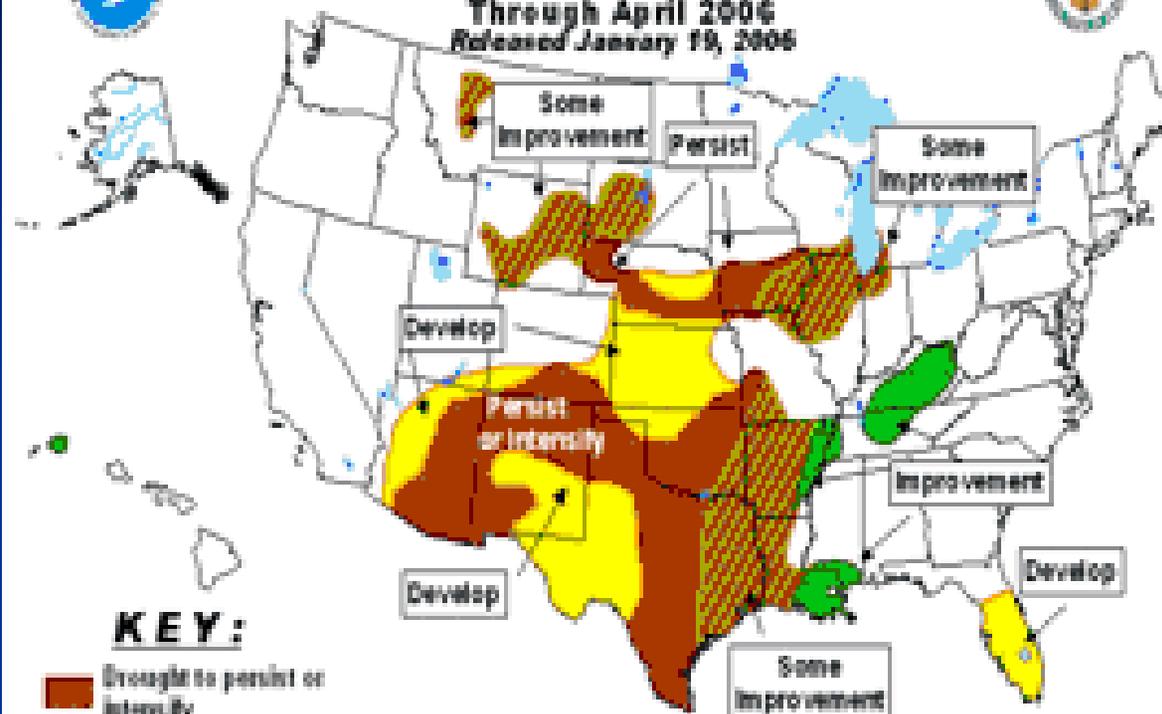
Released Thursday, February 2, 2006

Author: Rich Tinker, CPC/NCEP/NWS/NOAA



U.S. Seasonal Drought Outlook

Through April 2006
Released January 19, 2006

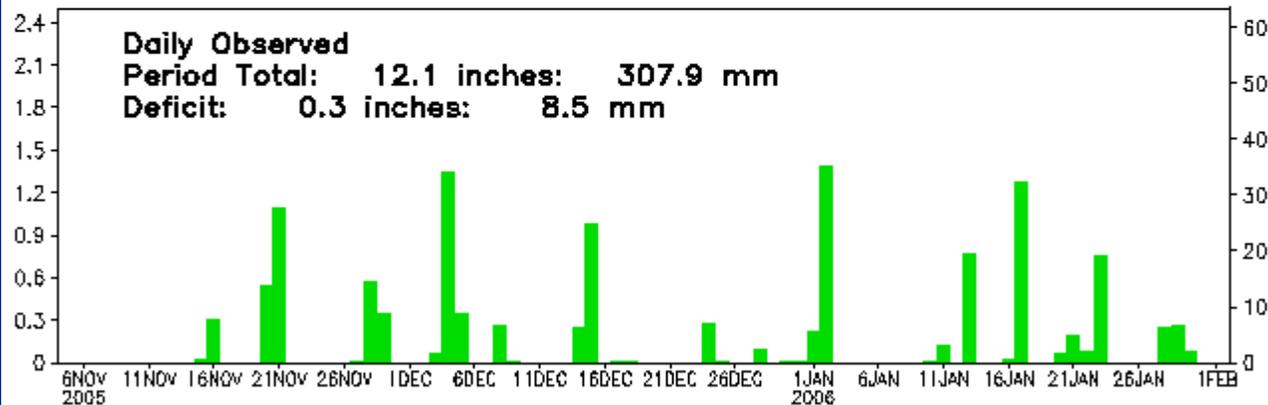
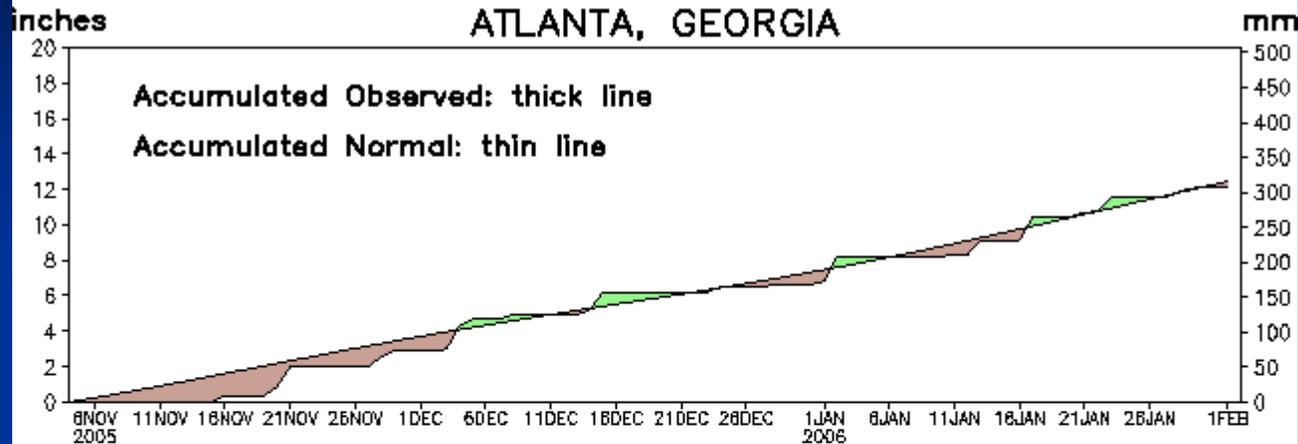


KEY:

-  Drought to persist or intensify
-  Drought ongoing, some improvement
-  Drought likely to improve, impacts ease
-  Drought development likely

Despite general, large-scale trends based on objectively derived probabilities guided by numerous indicators, including short- and long-range statistical and dynamical forecasts, short-term events – such as individual storms – cannot be accurately forecast more than a few days in advance, so are excluded from this outlook for applications – such as crops – that can be affected by such events. “Ongoing” drought areas are approximated from the Drought Monitor (D1 to D-6). For weekly drought updates, see the latest Drought Monitor map and text (DQ7). The green improvement areas imply at least a 1 category improvement in the DroughtMonitor intensity levels, but do not necessarily imply drought elimination.

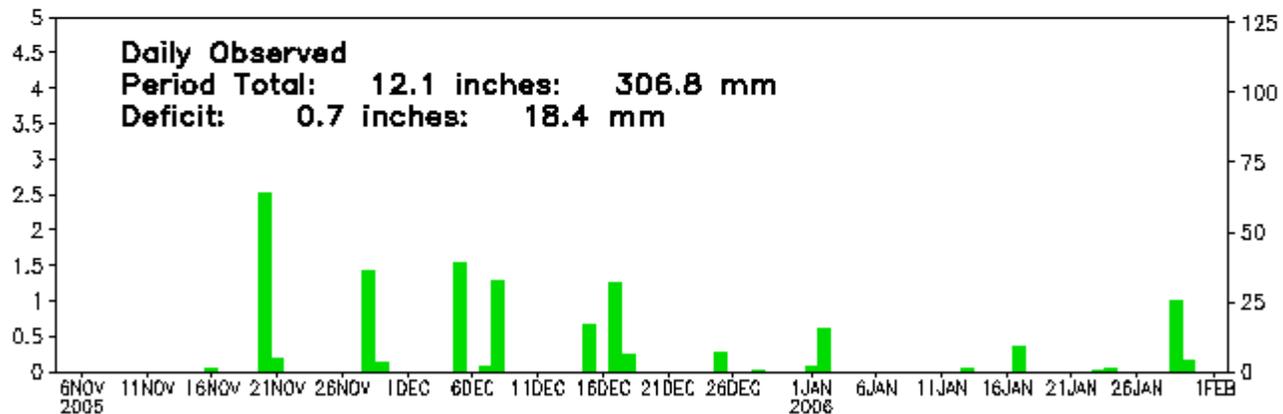
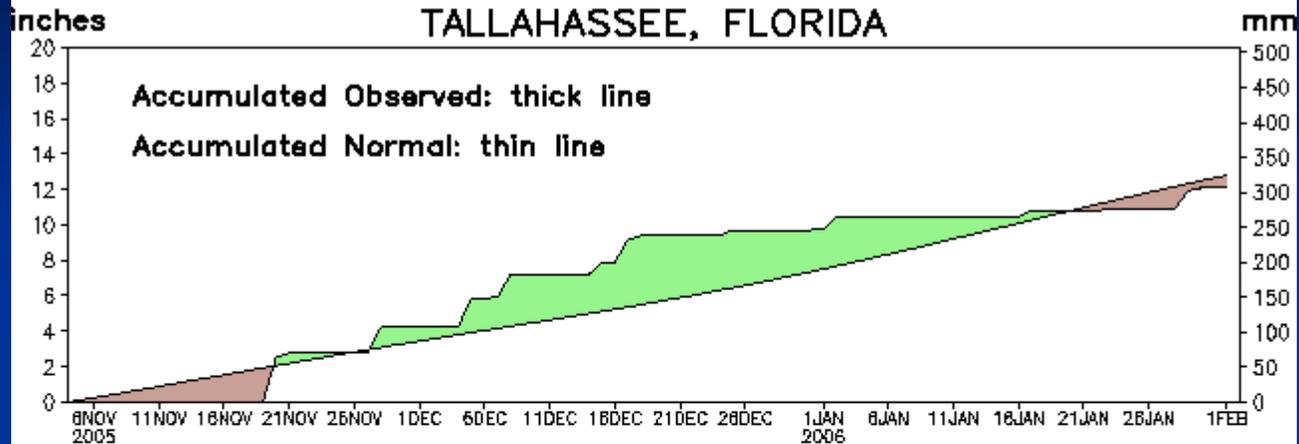
Precipitation ATLANTA, GEORGIA



Data updated through 01 FEB 2006

CLIMATE PREDICTION CENTER/NCEP

Precipitation TALLAHASSEE, FLORIDA



Data updated through 01 FEB 2006

CLIMATE PREDICTION CENTER/NCEP

Dr. William Gray's Hurricane Forecast

Named storms = forecast 17 (avg = 9.6)

Hurricanes = forecast 9, (avg = 5.9)

Intense Hurricanes

(Cat 3-5) = forecast 5, (avg = 2.3)

www.water.sam.usace.army.mil

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. Purpose. 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:

Administrative Office	Project/Water Body	Principal Fish 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

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