Alabama-Coosa-Tallapoosa Basin

What is the ACT?
The ACT is an acronym for the Alabama, Coosa, and Tallapoosa Basin. Not to be confused with the ACF (Appachicola, Chattahoocha, Flint Basin). Collectively, these two Basins have been at the forefront of the recent water issues.

How does the current drought compare to previous droughts in the ACT basin?
This is currently the worst drought the ACT Basin has ever experienced according to the Corps of Engineers. Seventy-four percent of Alabama and 43 percent of Georgia is in the exceptional drought category, according to NOAA Drought Monitor. Understanding the severity of the current drought is complex as climatic indices vary. Rainfall and temperature have not been uniform throughout the basin. The 2007 drought in Georgia worsened during September, bringing many of Georgia's rivers and streams to their lowest level ever recorded for the month. The city of Birmingham set an all-time record for the driest 7-month period (January to July) ever. Atlanta recorded its second driest record for the same period. Rainfall to date for 2007 is the driest since 1839 across most of north Alabama and northwest Georgia.

Due to the La Nina event that is strengthening, forecasters predict an 80 percent probability of below normal rainfall from October 2007 through March 2008, which may result in a continued drought of unprecedented duration and severity.

Who controls the operation of dams and reservoirs in the ACT?
There are 16 reservoirs of significance within the ACT system. The series of dams are operated primarily to meet the needs of navigation and hydropower production. These facilities are operated by the Corps of Engineers and the Alabama Power Company. Lake Martin, managed by the Alabama Power company, is the largest reservoir with 60.6 percent of the conservation storage. Lake Allatoona, managed by the Corps, is the second largest reservoir in the ACT basin with 11.4 percent of the conservation storage.

What is the role of the U.S. Fish and Wildlife Service?
Our role is to represent fish and wildlife in the equation and administer the Endangered Species Act; other agencies will represent additional uses such as water supply, wastewater dilution, power generation, irrigation for crops, recreation, commercial fishing, and the citizens of Alabama. We recognize the gravity of this drought and many people are concerned. In these unprecedented times, we are working closely with the Corps, Federal Energy Regulatory Commission (FERC), and Alabama Power Company on solutions to minimize effects to people and to fish and wildlife. There are no similar periods in history for us to draw on, so it is important that all water users work together to find the right balance and get through the tough times.

Coosa River by USFWS

Are there imperiled species in the ACT?
Yes. There are 27 federally-listed species that occur in the ACT watershed; 11 mussels, 10 fish and 6 snails. Although some of these species are confined to the headwaters (i.e., outside the influence of dams and hydropower operations), all these species are affected by the extreme drought. The goldline darter and triangular kidneyshell occur in the Coosawattee River below Carters Dam. The mainstem of the Coosa River is home to the southern clubshell, fine-lined pocketbook, and tulotoma snail. The Coosa and Alabama rivers support the last mainstem populations of the endangered tulotoma snail. The Alabama River is the only known habitat for the Alabama sturgeon and heavy pigtoe mussel; its lower reaches may be used by Gulf sturgeon.

The ACT is called a hotspot of aquatic biodiversity. Is that true?
Yes. It is noteworthy that we have already lost some of that diversity, for example, the Coosa River in Georgia historically included 36 native mussel species. Today, Service biologists know of only four. The Etowah River once included 43 mussel species, now we know of none. The Oostanaula River once included 43 mussel species, now we know of only 12. The Conasauga River once included 43 mussel species, now we know of only six. The Coosawattee River once included 20 mussel species, today we know of only 11. Changes in the Coosa Basin are just as dramatic. In fact, the extinction rate in freshwater snails in the Coosa Basin is second only to some of the rainforest in South America. Since the early 1900's, more than 40 species of freshwater snails, as well as several mussel species, are now presumed extinct.

Is critical habitat designated for any of the listed species in the ACT?
Yes. On July 1, 2004, the Service published the final rule designating critical habitat for 11 mussel species in the Mobile River Basin, which includes the Alabama, Coosa and Tallapoosa River systems in Tennessee, Georgia and Alabama; and the Black Warrior River system in Mississippi and Alabama. Four of the critical habitat units are located on the mainstem of the Alabama, Coosa, and Oostanaula Rivers, and are directly influenced by hydropower operations at

either Alabama Power Company or Corps of Engineers dams. The ACT also includes critical habitat for the Conasauga logperch, a small fish that lives in the Conasauga River upstream of Carters Dam. This fish is not affected by the regulation of flows through the Corps of Engineers or Alabama Power Company dams.

Does what happens in the ACT affect what happens in the Apalachicola-Chattahoochee-Flint river basin (ACF)?

Given the similarity between the two acronyms, ACF vs ACT, the terms can be confused. A key difference between the ACF and ACT is that the Corps has control over how the reservoirs are operated in the ACF. In the ACT, the Corps controls the headwaters (Allatoona and Carters) and the mouth (R.F. Henry, Millers Ferry, and Claiborne); the Alabama Power Company manages everything in between. Operation of one system does not directly affect the other; however, both systems serve the water supply needs of Atlanta and other north Georgia communities. Consequently, the amount of water in both systems is affected by water use in Georgia.

Who determines water releases and flows throughout the ACT?

Minimum flows from ACT dams are set in licenses granted by the FERC for Alabama Power Company impoundments and in Corps of Engineers Water Control Plans. The current continuous minimum flows released from Allatoona and Carters Reregulation Dams are 240 cfs, which prevents pollution concentrations from exceeding acceptable concentrations for human health. A 1972 agreement between the Alabama Power Company and the Corps established a minimum flow of 4,640 cfs, measured as a 7-day average, at Montgomery, Alabama.

Are there required flows especially to address the needs of listed species?

Yes. There is a 2,000 cubic-feet per second (cfs) minimum flow requirement in the FERC license for Jordan Dam in the Coosa River below Jordan Dam for the tulotoma snail.

Are there other species being impacted by low flows?

Yes. The Etowah and Oostanaula Rivers have a striped bass fishery, the Coosa River downstream of Jordan Dam has a world-class spotted bass fishery, and these species are being affected by low inflows or discharges. In Mobile Bay, recreational fisheries and commercial shrimping and oystering may be at risk by the decreased inflow of freshwater.

Are reduced flows being released from the ACT reservoirs?

Yes. The Corps has reduced flows out of Allatoona and Carters reservoirs, though not yet so low as the 240 cfs minimum. Hydropower generation at Allatoona was modified from generating five weekdays to a seven-day schedule to provide downstream interests consistent flows for their intakes for water supply and cooling purposes.

During portions of July through September, Alabama Power, under consultation with the Service, ADCNR, and ADEM, reduced flows in the Coosa River below Jordan from 2,000 cfs to 1,600 cfs. This was an attempt to store Coosa River water in the event that the drought persisted through the fall of 2007. This flow reduction ended in October and Alabama Power has now requested to reduce flows again at Jordan, and extend the reduction for the remainder of the drought.

What has the Service been working on in this basin?

The FWS began meeting with FERC and Alabama Power in March 2007 to address potential impacts of the deepening drought.

- In May, FWS concurred through informal consultation with APC's request to eliminate recreational flows in the Coosa River below Jordan.
- In May, FWS concurred with APC's request to reduce flows from the Yates/Thurlow projects and follow drought contingency plans.
- In July, FWS concurred with the Corp's opinion that a 10%, and up to 20%, reduction in flow in the Alabama River at Montgomery would effect but not likely adverse affect listed species in the Alabama River.
- In July, the FWS entered emergency consultation with APC to temporarily reduce minimum flows below Jordan Dam.
- In October, FWS coordinated with the Corps to test the intakes at Alabama Pulp and Paper at reduced flow conditions.
- In November, FWS concurred through informal consultation with APC's request to temporarily revise the Winter Rule Curve at the Martin project. Additionally, the FWS has participated in weekly inter-agency drought calls hosted by the Corps and is developing a monitoring strategy/plan for determining effects to listed species in the Alabama River.

Why should people care about rare mussels and fish?

Freshwater mussels are among the many animals that call the rivers of our region home. These mussels are an 'indicator' species for a healthy river system. Mussels do not move around much and many species are long-lived, so they are excellent indicators of the health of a river. Mussels are filter feeders, and help keep a river clean for free. When a river has a diverse and abundant assemblage of native species, we know that habitat is healthy for all its other inhabitants as well – including humans.

As conservationist Aldo Leopold said many years ago, the first rule of intelligent tinkering is to keep all the parts. We do not know what we lose when we lose a species. Giving up on mussels or sturgeons, large river fishes that were once abundant, would mean we are giving up on a healthy river system and its importance from its headwaters in Georgia to Mobile Bay in coastal Alabama. Many people are dependent on the river system being sustained for many generations into the future.

Will the FWS be involved with the Corps of Engineers' update of their Water Control Plan?

Yes, the Corps is required to consult with the FWS when they propose actions that may affect listed species or their critical habitat. Consequently, ongoing changes in the Corps' actions, as well as, a proposal to update the water control plan require consultation with the FWS to ensure that listed species are not unduly put at peril.

We believe the following principles would help in planning water management in the ACT basin:

- Determine and allocate an amount of water for consumption in each State and leave the rest in the rivers.
- Operate the reservoirs to minimize departures from the basins' natural flow regimes.
- Carefully and thoughtfully monitor hydrological and dependent ecological conditions in the basins over time and adapt using what is learned.