

Georgia Department of Natural Resources

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Noel Holcomb, Commissioner
Carol A. Couch, Ph.D., Director
Environmental Protection Division
(404) 656-4713

April 25, 2008

Colonel Byron G. Jorns, District Commander
Department of the Army
Mobile District, U. S. Army Corps of Engineers
ATTN: CESAM-DE
Post Office Box 2288
Mobile, Alabama 36628-0001

Dear Colonel Jorns:

As requested by our letter of February 11, 2008, the Corps took steps to reduce releases from Buford Dam to achieve minimum flows at Peachtree Creek less than 750 through April 30, 2008. This action was requested to preserve storage in Lake Lanier and was recommended by EPD after careful analysis showed reduced flows would not adversely affect water quality or threaten water intakes below the dam. As indicated in our February 11, 2008 request, EPD has closely monitored water quality in the river to assess impacts of the reduced flows to determine if adaptive management practices were warranted to address these impacts. Data that we have collected since the reduced flows began indicate no adverse water quality impacts associated with the reduced flows, and no other impacts have either been observed or reported.

This is to request that these reduced flows be continued through May 31, 2008. This request is supported by the results of the modeling analysis presented with our February 11, 2008 letter that show that no adverse water quality impacts would be expected if these reductions were continued through May 31, 2008. This request is also supported by the monitoring data we have collected during the reduced flows that confirm the results of our model. A summary of the results of these data is attached.

In making this request, we have also assessed the effect of reduced flows on water temperatures in the River since May is the beginning of the period where rising temperatures would be expected to effect survival of trout in the designated trout waters below Buford Dam. Our assessment included temperature modeling on this segment of the River and consultation with the Wildlife Resources Division of the Georgia Department Natural Resources. The results of our assessment indicate that reduction in flows from 750 cfs to 650 cfs at Peachtree Creek through May 31, 2008 would not be expected to result in temperature increases that would endanger trout survival. A summary of the results of this assessment is attached. However, we will continue to coordinate with the Wildlife Resources Division to monitor temperature and provide for timely opportunity to intervene in the event that temperatures rise to levels of concern for the trout fisheries.

During the period of reduced flows, EPD once again is proposing to employ an adaptive management approach that would include continued water quality monitoring and the installation of additional temperature monitors. EPD would inform the Corps as soon as possible upon the discovery of conditions that indicate the need for revised management practices.

We therefore request that releases from Buford Dam use 650 cfs rather than 750 cfs as the minimum flow at Peachtree Creek beginning May 1, 2008 and continuing through May 31, 2008.

Sincerely,



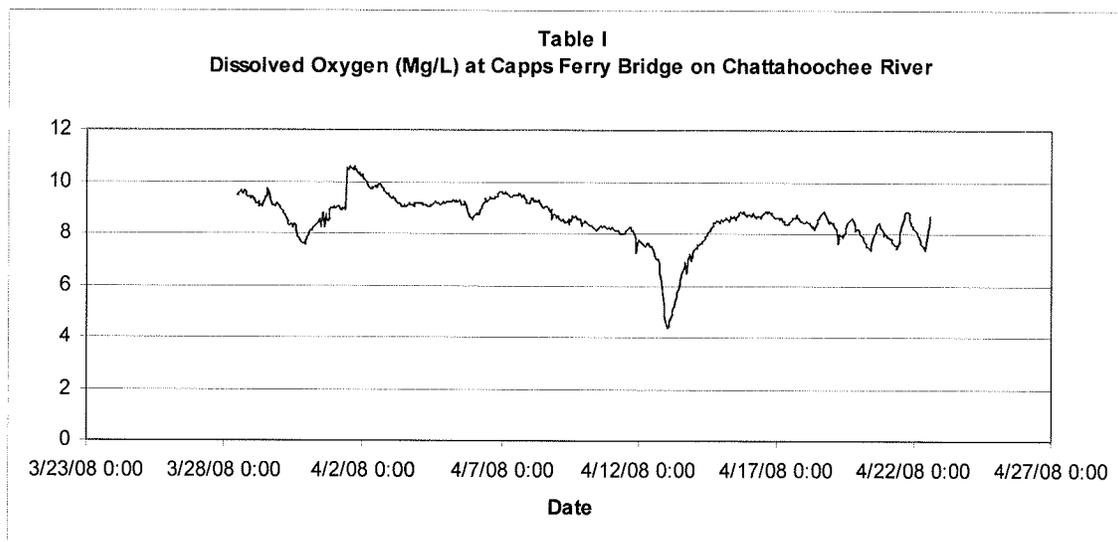
Carol A. Couch
Director

Dissolved Oxygen Monitoring Data Summary

Table I provides a summary of dissolved oxygen (DO) data collected by EPD since March 28, 2008 at Capps Ferry Bridge Road on the Chattahoochee River below the Dog River confluence and the USGS Fairburn Gage which is at the Georgia Highway 92 crossing of the Chattahoochee River. This monitoring location was selected because it is near the point in the River at which the hydrodynamic and water quality EPDRiv1 model predicted minimum DO levels would occur.

The monitoring data show that water quality standards for DO have been protected and that the results of the model have been validated. DO levels have not dropped below the water quality standard of 5 mg/l due to the reduction of flows to 650 cfs at Peachtree Creek. Additionally, DO levels have remained at or above those predicted by the model even for model conditions that assumed that tributary inflows would be 50% lower than the 7Q10.

The only excursion occurred on April 12 between 8:00 am and 1:00 pm when DO dropped briefly to 4.59 mg/l. We believe this drop was attributable to a combined sewer overflow that occurred on April 11, 2008 from 9:00 pm until midnight from the City of Atlanta North Avenue CSO treatment facility. This event was triggered by 0.67 inches of rainfall that fell in the Proctor Creek basin over a period of about 1 hour and 45 minutes. During combined sewer overflow events, this facility discharges to a tributary to Proctor Creek. This overflow caused DO levels at the USGS Proctor Creek to drop from 7.2 mg/l to 4.3 mg/l in a period of about 30 minutes and apparently resulted in a fish kill in Proctor Creek that is being investigated by the Wildlife Resources Division. EPD is following up with the City of Atlanta on the CSO event. No other fish kills were observed or reported. It is likely that this drop in dissolved oxygen would have occurred even if the river flow had been higher.



Temperature Modeling Results

Tables II through IV present the results of temperature modeling using EPDRiv1 which is the same model used to model water quality conditions to support EPD's February 11, 2008 request to reduce flows at Peachtree Creek to 650 cfs. Using inputs similar to those used before, the model looked at predicted temperatures at three locations: Immediately above Bull Sluice Lake, immediately downstream from Morgan Falls Dam, and just upstream from Peachtree Creek. These locations were selected because they represent critical points in the stream where the trout fishery would be most susceptible to temperature changes.

The model shows that above Bull Sluice Lake, temperatures remain well within a range that would not jeopardize long-term trout survivability (20°C). Because of warming effects induced by Bull Sluice Lake, excursions above 20°C become more frequent. At Peachtree Creek, more frequent and exceedances indicate a low likelihood of trout survival.

Table II
Temperature in Chattahoochee River near
GA 400 just upstream from Bull Sluice Lake

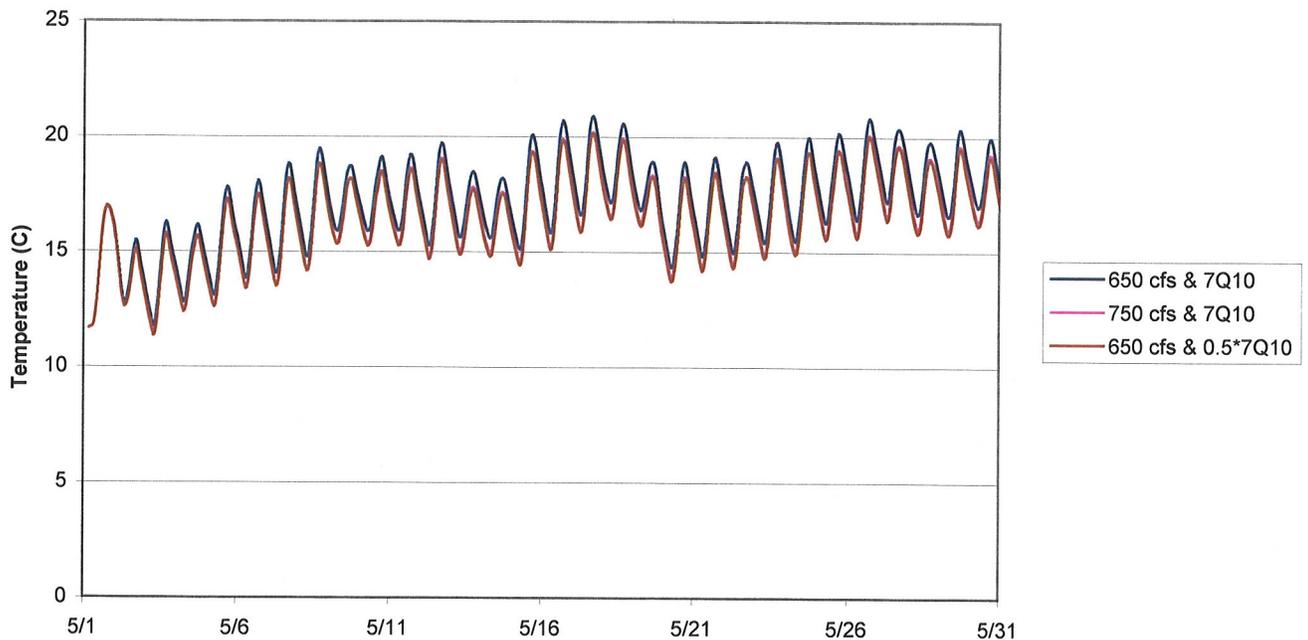


Table III
Temperature in Chattahoochee River in Morgan Falls Dam Tailwater

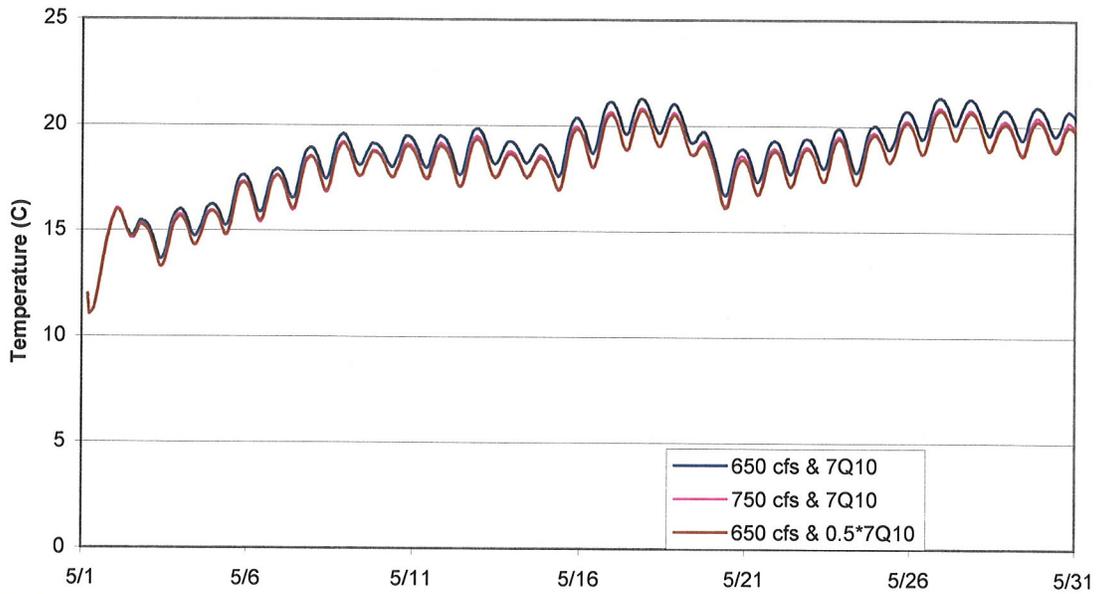


Table IV
Temperature in Chattahoochee River at City of Atlanta Intake just upstream from Peachtree Creek

