

Handouts

Water Allocation Committee Meeting

September 12, 2007



**Western Wake Communities
Interbasin Transfer Requirements:
Update on Progress in Returning
Water to the Cape Fear River
Basin**

*Towns of Apex, Cary, and
Morrisville and Wake County
(RTP South)*

September 12, 2007

Presentation Topics

- **Background on IBT Certificate requirements**
- **Planning for New Wastewater Facilities**
- **Regulatory process**
- **Schedule for Project**
- **Actions related to IBT Compliance**
- **Discussion and Future EMC Communications**

IBT Certificate

- **Issued in July 2001**
 - Approximately 6 years for SEPA and issuance process
- **Certificate holders include Towns of Cary, Apex and Morrisville and Wake County (RTP South)**
- **Requirements**
 - Max day IBT of 24 mgd
 - Several conditions

Condition 1 of Western Wake Communities IBT Certificate

- After 2010, water supplied from the Haw Basin shall be returned to either the Haw or Cape Fear Basin
 - Any water used in the Neuse basin in excess of an average daily usage of 16 mgd shall be returned
 - Consumptive use is excluded from this calculation
- Certificate includes a formula for calculating the required annual return amount

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Need for new wastewater facilities

- **Interbasin transfer (IBT) certificate requires return of “water” to Cape Fear Basin by January 1, 2011**
- **Cary must meet WW capacity needs for Cary, Morrisville, RTP South and RDU airport**
- **Apex has very limited WW capacity to meet region’s rapid economic growth**
- **Expansion of existing facilities to meet long term needs is not cost-effective – especially given IBT requirements**
- **Holly Springs also needs WW capacity and has a regulatory mandate to remove discharge from the Harris Lake watershed**

Western Wake Regional Wastewater Strategies Study

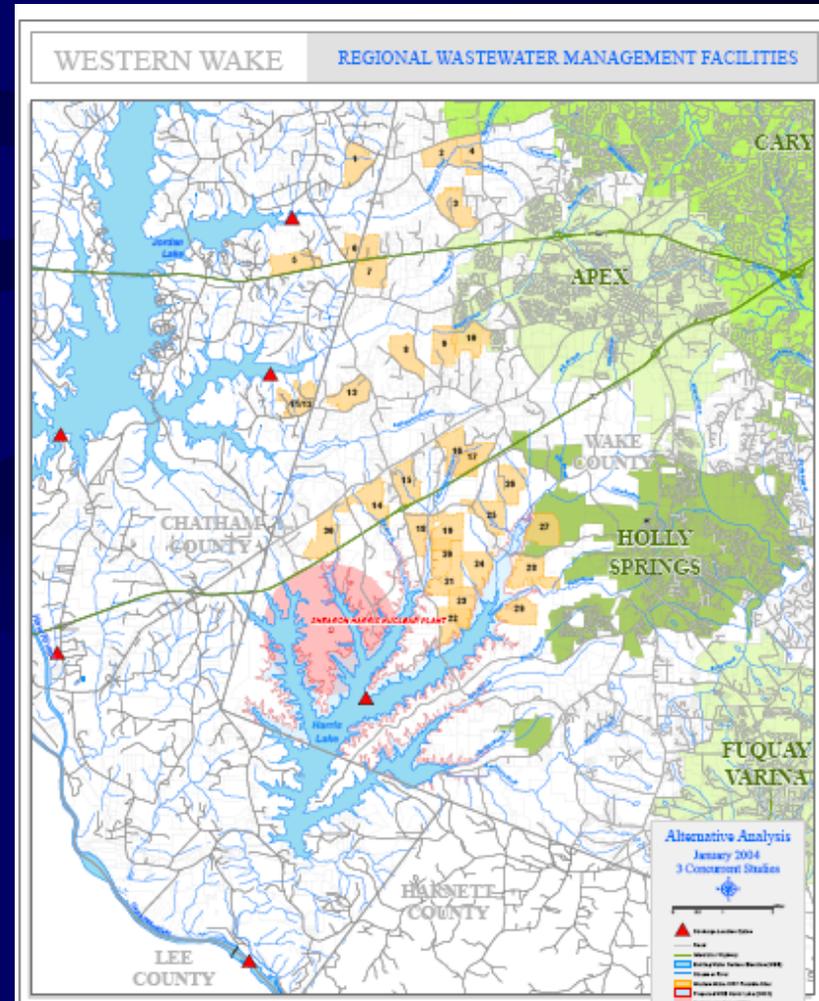
- Regional plan strongly encouraged by DENR/DWQ
- Initiated in 2002
- Included Apex, Cary , Morrisville, Holly Springs, Fuquay-Varina, and Wake County
- Updated wastewater projections
- Numerous regional strategies
 - Communities meet individual needs
 - Cooperation with neighboring communities outside of Wake County
 - 1 to 3 new WRF facilities
 - Multiple discharge locations
 - Shared Conveyance

Regional Wastewater Management Strategy

- **Apex, Cary, Morrisville and RTP South**
 - Raw wastewater pumping and conveyance to new Western Wake WRF
 - Effluent conveyance to discharge location
- **Holly Springs**
 - Expanded Utley Creek WRF
 - Conveyance to WW WRF – shared conveyance to discharge location
- **Fuquay-Varina**
 - Use own WWTPs and send wastewater to Harnett County

Effluent Discharge Alternatives

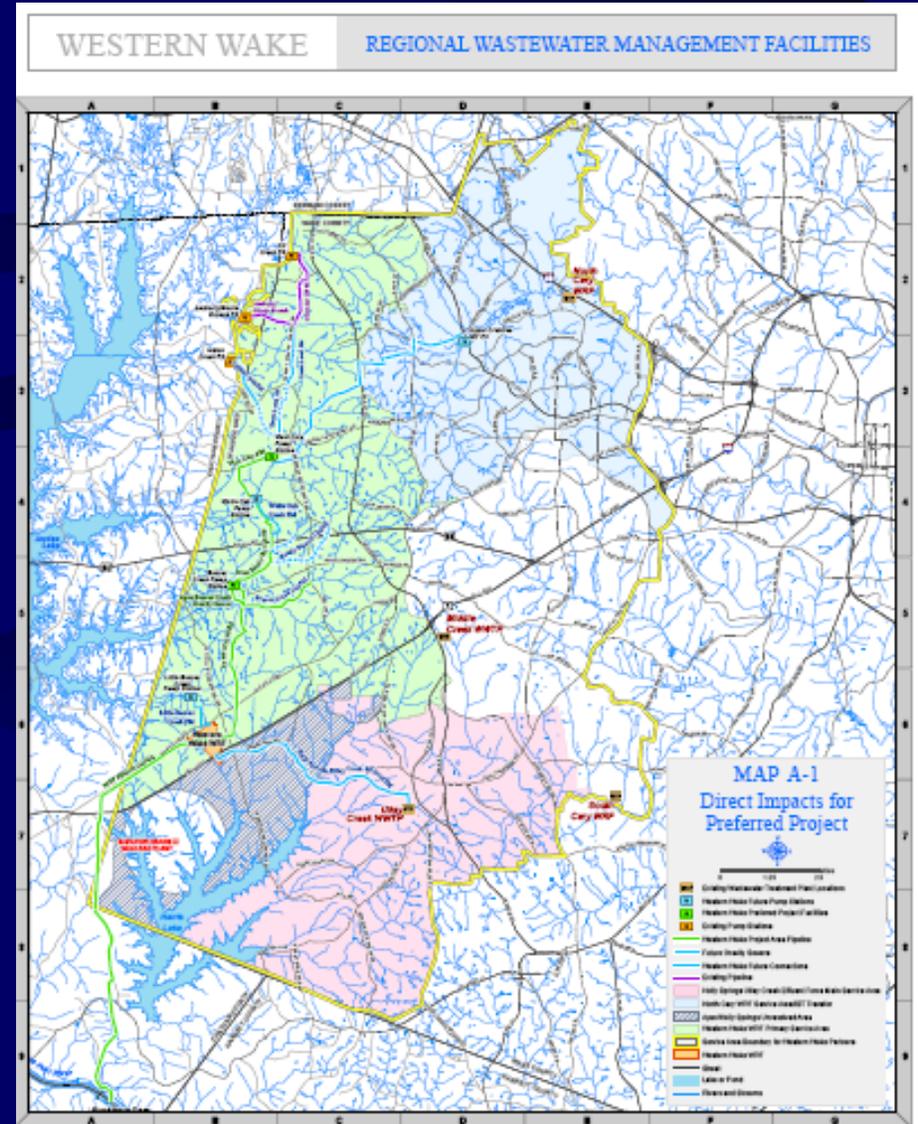
- New Hope River Arm of Jordan Lake
- Harris Lake/Utley Creek
- Haw River/Cape Fear River Above Buckhorn Dam
- Cape fear River Below Buckhorn Dam



Western Wake Regional Wastewater Management Facilities

Description of Proposed Regional Project

- 2 raw WW pump stations, 8.5 miles pipeline
- 18 mgd WRF (1st phase)
- Effluent pump station, 13.4 miles pipeline



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Key Regulatory Planning Process – Prior to Permitting

- **Coordination with DENR/DWQ began in late 1990s**
 - Regional planning process began in 2002
- **Secondary and Cumulative Master Mitigation Plans**
 - New process to address impacts of “planned growth”
 - Master Plans approved in late 2005
- **State EIS**
 - Started in early 2005
 - Prepared a draft EIS and conducted a public hearing (June 2006)
 - WRF site issues delayed process
 - Superseded by Federal Process due to permits required by the US Army Corps of Engineers (USACE)
- **NEPA EIS**
 - Started in May 2007

NEPA EIS

- **Lead by USACE in partnership with**
 - DENR
 - Western Wake Partners
- **Using a Project Delivery Team to address key issues**
 - **Monthly PDT Meetings**
 - **Membership includes**
 - State and Federal agencies
 - Project Partners
 - Other local governments – Wake and Chatham Counties
 - Interested citizens – New Hill Community Members

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Schedule

2007-2008

- **Development of Environmental Impact Statement by Corps of Engineers including:**
 - Public comment period on Draft EIS
 - Public hearing
 - Publication of Final EIS
 - Record of Decision

2008

- **Application for and receipt of permits:**
 - NPDES permit issued by NCDENR
 - Authorization to Construct permits issued by NCDENR
 - 401 Certification issued by NCDENR
 - 404 Wetlands permit issued by Corps of Engineer

2009-2011

- **Construction**

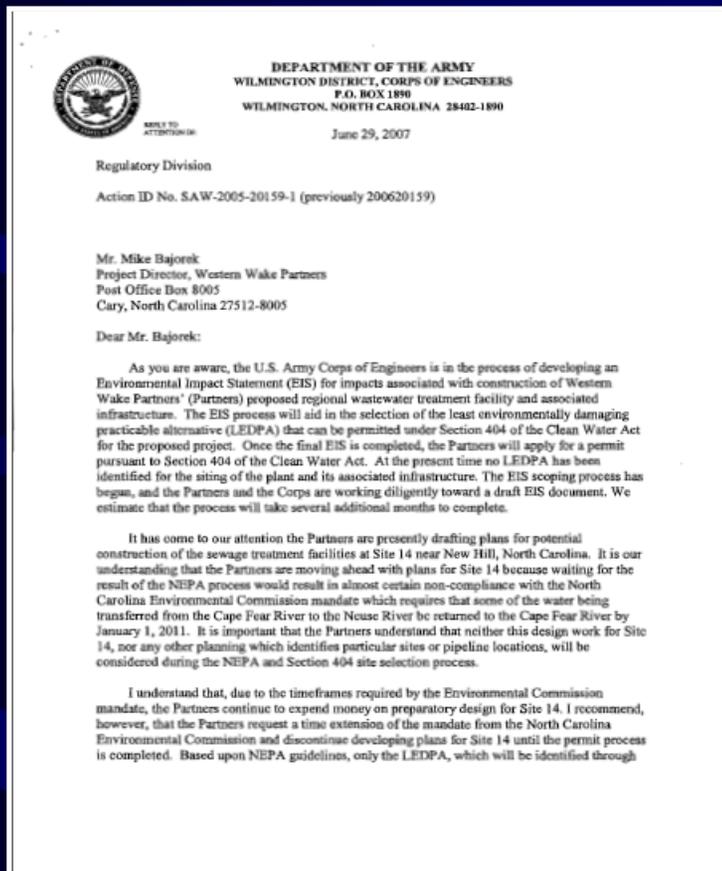
2011

- **Operation of facilities begins**

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USACE July Letter



- Acknowledged Partners have
 - Purchased site
 - Moving forward with design to meet IBT requirements
- Requested
 - Stop Design
 - Request IBT Extension

Partner's August Response

- Met with DWR and determined
 - No clear path to request IBT change
 - Compliance possible due to inter-local agreement
- Continuing to proceed with design
 - Recognizing risks
 - Several reasons besides IBT annual return amount to move forward
 - Believe site has minimal impacts
- Indicated that Partners would brief the EMC on issues/progress

WESTERN WAKE PARTNERS



August 22, 2007

S. Kenneth Jolly
Chief, Regulatory Section
Department of the Army
Wilmington District, Corps of Engineers
P.O. Box 1890
Wilmington, NC 28402-1890

Subject: Response to June 29, 2007 Letter regarding the Western Wake Partners Environmental Impact Statement Process (Action ID No. SAW-2005-2010901 [previously 200620159])

Dear Mr. Jolly:

The purpose of this letter is to respond to your letter of June 29, 2007. In that letter, you comment that the Partners are drafting plans for potential construction of facilities related to a proposed water reclamation facility (WRF) at Site 14, and that we are proceeding with those design activities concurrent with permitting because the return of water to the Cape Fear River by January 1, 2011 is mandated by the North Carolina Environmental Management Commission (EMC). You then recommended that the Partners request an extension of that deadline from the EMC, and discontinue plan development until the permit process is completed. Those two recommendations will be addressed separately below.

IDT Deadline

The January 1, 2011 deadline for returning water to the Cape Fear River Basin is included as Condition 1 in the Certificate for Interbasin Transfer (IBT) that was issued to the Towns of Apex, Cary, and Morrisville and Wake County by the EMC. The NCDENR Division of Water Resources (DWR) manages the IBT process, and on August 1, 2007, representatives of the Town of Cary met with John Morris, DWR Director, and several DWR staff members to discuss your recommendation for requesting an extension of the January 1, 2011 deadline. Key conclusions from this discussion are:

- The IBT Certificate does not include a mechanism for modifying the deadline in Condition 1 of the certificate and, according to DWR, the General Statutes do not appear to include a defined process for modifying specific conditions of an IBT certificate.



WESTERN WAKE PARTNERS
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www.westernwakepartners.org

IBT Certificate Compliance Actions

- **Return of Water to Haw or Cape Fear Basin after 2010**
 - Cary has ILA with Durham County for up to 5 mgd of capacity at the Triangle WWTP until 2011
 - Projected required average return for 2011 of 2.1 mgd
- **Reclaimed water master plan**
 - Average day reclaimed water use of 1.3 mgd
 - Max day reclaimed water use of 4.8 mgd
- **Max day IBT compliance is an issue**
 - Exacerbated by delay in Western Wake WRF
 - Options to address issues are being considered

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House Bill 820

- Calls for a study by the Environmental Review Commission of water allocation, interbasin transfer, consumptive water use, a comprehensive plan to regulate surface water withdrawals, a review of state water laws, and related purposes.
- Requires the Division of Water Resources to develop a new map defining the extent to which river basins extend from North Carolina into other states.
- An applicant for an IBT must file a notice of intent to file a petition and hold three public scoping meetings on the environmental documents to accompany the petition.
- The applicant must provide additional public notice along with the requirements of the previous statute, including newspaper notices in adjacent states that share the source river basin and mail notices to local governments in adjacent states that share the same basin. In addition, the applicant must send mail notices to public water system water users upstream or downstream from the proposed transfer and wastewater dischargers upstream or downstream from the proposed transfer. In addition to large parts of South Carolina and Virginia, this notice requirement could include notice to local governments in other downstream states.
- An environmental impact statement is mandatory for any transfer from a major river basin to another basin.
- The EMC will hold a public hearing on the draft environmental document.
- The EMC may appoint a mediation officer to initiate settlement negotiations between the applicant and interested parties.
- The EMC shall issue a draft certificate, including findings of fact and conditions on the proposed transfer, and hold a public hearing on the draft.
- The EMC shall make findings of fact that the applicant cannot satisfy its water needs from alternatives within the receiving basin, including unused capacity from other approved transfers and the purchase of water from other water systems, and that there is no reasonable alternative to the proposed transfer.
- The certificate must require the applicant to have water use efficiency and drought management plans that equal or exceed the most stringent plans in place in the source river basin.
- The EMC may amend the certificate to reduce the transfer if it appears that an additional water source is available to the certificate holder or if the holder's projected water needs are determined to be less than at the time the certificate was approved.
- The certificate holder shall not resell transferred water unless the buyer was a co-applicant.

Agenda Item 4a: Greenville Utilities Commission Interbasin Transfer

Source Basin: Tar
Receiving Basins: Neuse, Contentnea Creek

Consultant: Arcadis

- DWR met with consultant representatives of Greenville Utilities Commission (GUC) on August 29, 2007 to discuss GUC's plans to request an IBT certificate.

The proposal is for GUC to supply treated surface water to surrounding areas including Farmville, Greene County, and Winterville (See map on next page).

The surface water purchases would replace current groundwater sources.

- Purchases from GUC would help systems to comply with Capacity Use Area (CUA) permits which require future reductions in future pumping. The CUA permit requires the first reduction in pumping by Aug 1, 2008.
- In April, 2007, a 27-page memo outlining the IBT request was submitted.

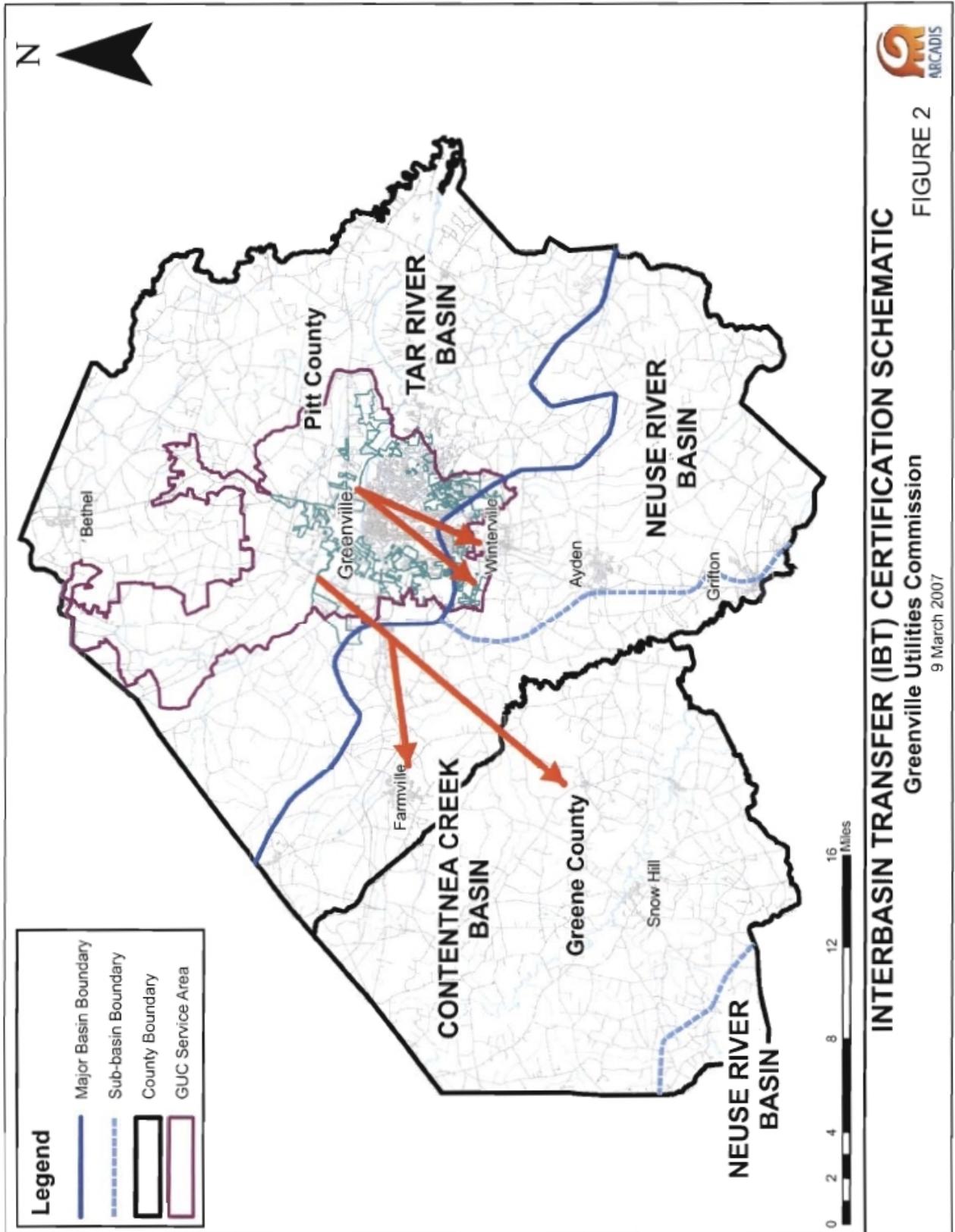
Preliminary estimated 2040 max day transfer amounts:

Tar River to Contentnea Creek	:	8 mgd
Tar River to Neuse River	:	4 mgd

- The bill recently passed by the General Assembly modifying IBT laws includes a clause saying that the newly enacted IBT law would apply to systems in the CUA beginning on January 1, 2011. Therefore, in the case of GUC, the previous law applies.
- GUC's consultant plans to develop an EA since the IBT would replace existing GW supplies, and no substantial growth is expected, therefore no secondary and cumulative impacts are expected.

The Draft Environmental Assessment for the IBT request may be submitted in late September according to the consultant.

- The next step would be the SEPA review process for the EA.
- GUC's consultant is planning for a November 2008 EMC decision on the request.



Agenda Item 4b: Charlotte Mecklenburg Utilities

- Charlotte Mecklenburg Utilities has an IBT certificate to transfer up to 33 mgd from the Catawba River Basin to the Rocky River Basin.

Condition #3 of the certificate places a moratorium on new water lines into the Goose Creek watershed until the impacts of urban growth on the federally endangered Carolina Heelsplitter mussel are fully evaluated.

- DWQ has proposed a site-specific management plan for Goose Creek which includes proposed rules for protecting water quality in Goose Creek. The EMC will decide on Sept 13 whether this plan will proceed to public hearing.

The Town of Mint Hill, which lies in Goose Creek, has adopted a set of development ordinances including post-construction stormwater management measures.

- DENR plans to develop an environmental assessment (EA) to specifically study the impacts of the CMU interbasin transfer on the Carolina Heelsplitter.

The document will be reviewed according to the SEPA.

- Upon completion of the SEPA review, the final EA will be presented to the Water Allocation Committee with a staff recommendation on how to proceed with regards to the IBT certificate condition #3.



North Carolina Department of Environment and Natural Resources
Division of Water Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary
John Morris, Director

**Water Allocation Committee
Environmental Management Commission
September 12, 2007 Drought Update**

• **Current Conditions**

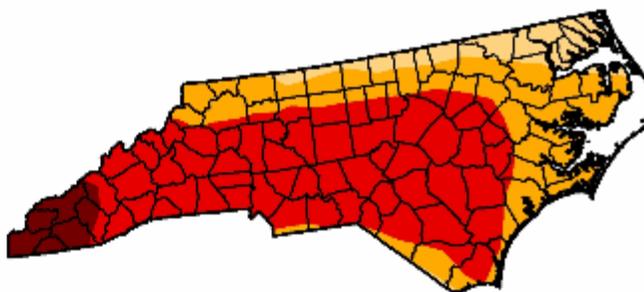
- Drought Monitor (<http://www.ncdrought.org/>)
 - NC Drought Management Advisory Council's Technical Team weekly conference calls (http://www.ncwater.org/Drought_Monitoring/weekly.php)

U.S. Drought Monitor
North Carolina

September 4, 2007
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.0	100.0	100.0	91.0	61.6	5.0
Last Week (08/28/2007 map)	0.0	100.0	100.0	75.2	30.4	9.7
3 Months Ago (06/12/2007 map)	7.4	92.6	48.8	14.7	5.3	0.0
Start of Calendar Year (01/02/2007 map)	98.5	1.5	0.0	0.0	0.0	0.0
Start of Water Year (10/03/2006 map)	95.1	4.9	0.1	0.0	0.0	0.0
One Year Ago (09/05/2006 map)	44.3	55.7	5.3	0.0	0.0	0.0



Intensity:

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

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

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



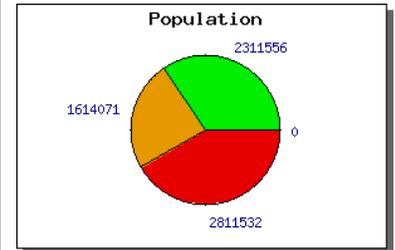
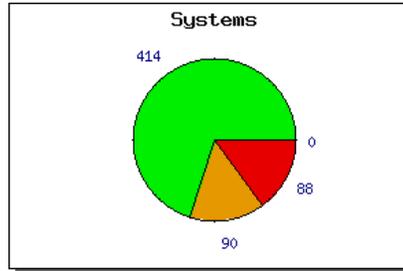
Released Thursday, September 6, 2007
Author: Thomas Heddinghaus, CPC/NOAA

- o Status of Public Water Supply Systems
http://www.ncwater.org/Drought_Monitoring/reporting/displaystate.php

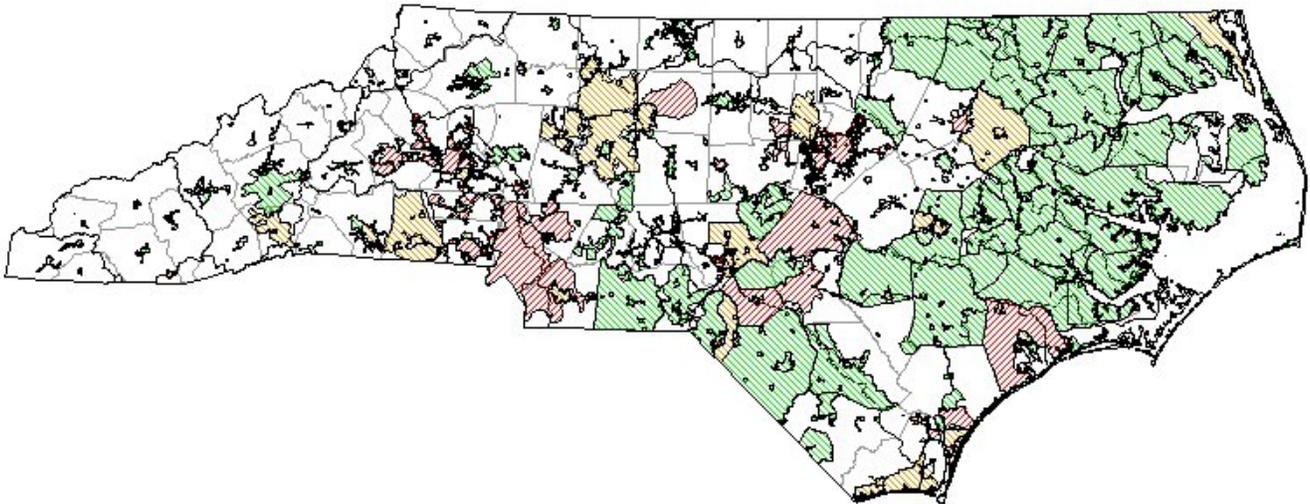
Water Conservation level status, Statewide
Statewide summary data for tracked water systems

Water Conservation level summary data

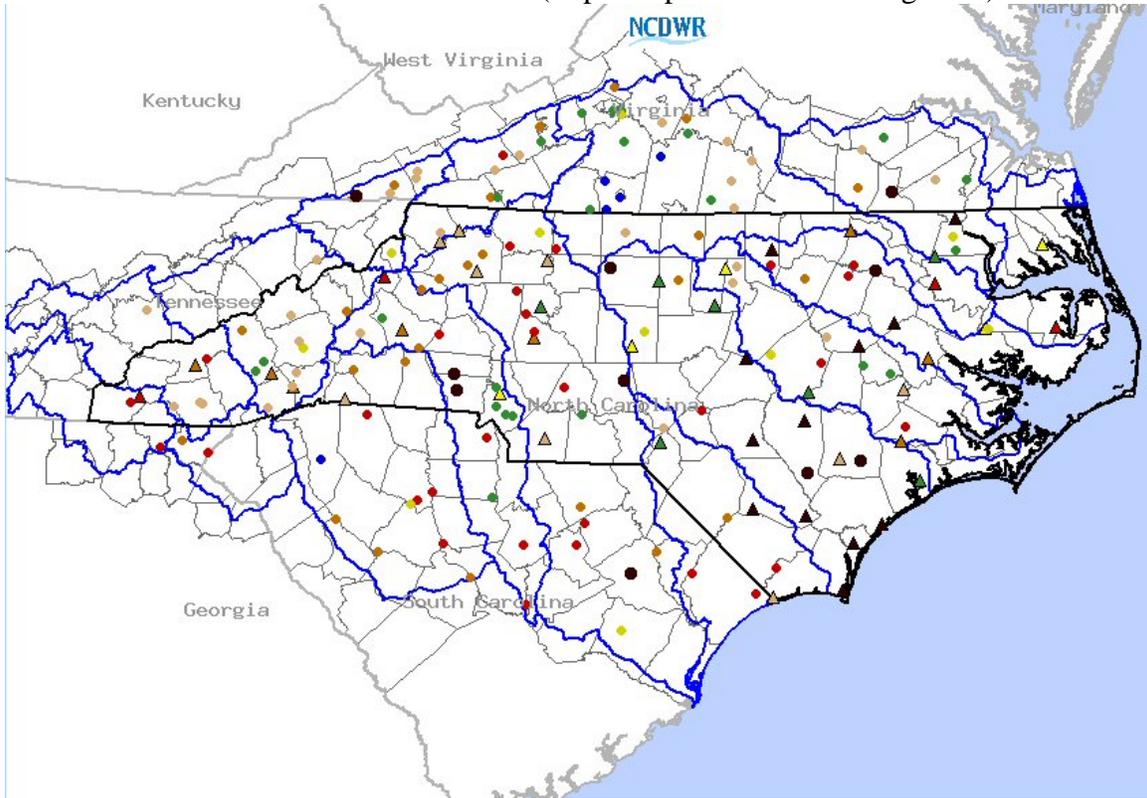
Status	Systems		Population	
	Number	Percent	Number	Percent
Not Restricted	414	69.93	2,311,556	34.31
Voluntary Conservation	90	15.20	1,614,071	23.96
Mandatory Conservation	88	14.86	2,811,532	41.73
Emergency	0	0.00	0	0.00
Total	592		6,737,159	



The status of the public water supply systems, as a result of drought related causes, is 61 (10.30%) voluntary, 66 (11.15%) mandatory, and 0 (0.00%) emergency water conservation status, out of a total of systems that are tracked.



- Ground Water Levels & Streamflows (<http://mapserver.ncwater.org/DM/>)



- NWS Forecast – “The last two weeks' rainfall has been dismal...and the forecast this week is not looking *nearly* as good as we'd hoped.”
- Southeast Climate Consortium has issued a La Niña watch. A watch means that conditions are likely for the development of a full-fledged La Niña event. The tropical Pacific Ocean is now poised to slip into a full-fledged La Niña. Chances are very good that La Niña conditions will develop, strengthen and persist through the fall and winter months. La Niña conditions usually bring a warmer and drier cool season (October through March). With the arrival of La Niña, there is a good chance that drought conditions will continue and possibly worsen throughout the winter and into next spring.

○ Impacts

- New all time record streamflows in the Tar. City of Rocky Mount may need to request an emergency interbasin transfer. Emergency interbasin transfers are handled by DENR.
- Corps has implemented their drought plans for John H. Kerr, W. Kerr Scott, Jordan Lake and Falls Lake projects. Net inflows into both Falls and Jordan have been negative for the month of August and September. The Neuse River and Falls Lake is the project of most concern. The water quality storage remaining is 44% with projection of only 17% remaining at the end of October.
- The power companies in both the Catawba and Yadkin River basins have implemented their low inflow protocols (LIPs).
- TVA lakes are now at their winter drawdown levels and still dropping.
- The status of the public water supply systems, as a result of drought related causes, is 61 (10.30%) voluntary, 66 (11.15%) mandatory, and 0 (0.00%) emergency water conservation status, out of a total of systems that are tracked.

For Release: **IMMEDIATE**
Date: August 22, 2007

Contact: Renee Hoffman
Phone: 919/733-5612

GOV. EASLEY TO SEEK FEDERAL DISASTER AID FOR DROUGHT-STRICKEN FARMERS

RALEIGH - Gov. Mike Easley announced today he will ask the U.S. Secretary of Agriculture for a federal disaster declaration for farmers whose crops and livestock are suffering from the ongoing drought. The N.C. Department of Agriculture and Consumer Services and the U.S. Farm Service Agency have nearly completed a statewide survey of crop loss data from farmers to determine which counties to include in a federal disaster request.

“Early indications are that more than 90 counties may meet the criteria for federal disaster assistance,” Easley said. “Our farmers need our help, and since we cannot make it rain, we will do everything we can to provide them some financial assistance.”

Once the crop loss information is certified by Farm Service Agency, the governor will send a letter to the U.S. Secretary of Agriculture asking for federal disaster aid for those farmers in counties that have at least one covered crop with 30 percent or greater reduction in normal yield. If it is approved, a federal declaration will make low interest Emergency Disaster Loans available to farmers who cannot get credit elsewhere.

Many farmers have reported significant losses in corn and soybean crops and a lack of hay to feed cattle. The state Department of Agriculture has already initiated a hay alert and established a web page -- **www.agr.state.nc.us/HayAlert** -- where those farmers with hay for sale can connect with those who need hay to feed livestock.

August is on track to be the hottest month ever recorded in North Carolina. Rainfall in some communities is 50-to-75 percent less than normal for this time of year. At Tuesday’s N.C. Drought Management Advisory Council meeting, officials received reports that groundwater levels are approaching the lows that occurred in the 2002 drought and that the state would need more than 15 inches of rainfall during the next six months to return to adequate levels. However, weather forecasters say there is no significant rainfall expected in the near future. For information on current drought conditions, go **to www.ncdrought.org**.

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For Release: **IMMEDIATE**
Date: September 7, 2007

Contact: Renee Hoffman
Phone: 919/733-5612

GOV. EASLEY ASKS LOCAL OFFICIALS TO IMPOSE WATER CONSERVATION PLANS
Drought Continues To Worsen Across the State; Little Significant Rainfall in the Forecast

RALEIGH – Gov. Mike Easley is asking local officials who have not already implemented water conservation measures in their cities and counties to do so immediately as the drought continues to worsen across North Carolina. He is sending a letter to mayors and county commissioners in counties that operate public water systems. Ninety-three of the state’s 100 counties are now experiencing exceptional, extreme or severe drought.

“I am calling on all public officials in North Carolina who have not already enacted local ordinances for either voluntary or mandatory water conservation to do so immediately,” said Easley. “Public water systems are continuing to have near maximum water demands every day of the week because of the hot, dry weather and there seems to be no relief to the drought in sight.”

The drought map released Thursday by the federal Drought Monitor shows extreme drought has spread to 66 counties from the Piedmont to the Coastal Plain and severe drought covers 20 counties all the way to the Outer Banks. Seven counties in northeastern North Carolina are listed as experiencing moderate drought, the least serious of the four-category federal drought system.

A low pressure weather system in the Atlantic Ocean could bring some rain to the eastern part of the state this weekend, but would likely not result in enough to alleviate the drought. Agricultural and meteorological authorities says the state needs more than 15 inches of rain in the next couple of months to make up for significantly low river and stream flows, groundwater supplies and reservoir levels that have been depleted during the drought.

Easley said he is pleased to see that many municipalities are heeding his earlier calls for water conservation but everyone needs to conserve more since the situation will likely get worse before it gets better. Of the public water supply systems the state tracks, 64 have put mandatory water use restrictions in place due to drought and another 53 have imposed voluntary restrictions. State officials track all government-owned systems, privately-owned systems with 1,000 or more service connections or serving 3,000 or more people, and privately-owned systems on voluntary or mandatory restrictions.

The lowest-ever average August stream flow was recorded last month at 13 monitoring stations, including nine in central North Carolina, two sites in the coastal plain and two sites in the mountains, according to the U.S. Geological Survey. All of the sites have been monitored for at least 35 years and most for more than 50 years, the survey reported. In addition, August stream flows at 17 monitoring stations, most of which are in eastern North Carolina, are lower than those measured during the drought from 1998 to 2002.

The governor continues to direct state agencies in all 100 counties to stop non-essential water use and asks all citizens to cut back their water consumption by 20 percent.

Last month, Easley asked the U.S. Secretary of Agriculture to declare most of the state a federal disaster area due to crop losses caused by the drought. Information gathered by the U.S. Farm Service Agency shows 85 counties have at least one covered crop with a 30 percent or greater reduction in normal yield.

The governor has also issued an executive order waiving certain highway size and weight restrictions for trucks to help with drought relief efforts for farmers. The order allows vehicles transporting hay or water along North Carolina roadways to drought-stricken counties to exceed the normal size and weight restrictions.

The N.C. Division of Forest Resources has imposed a statewide ban on open burning and cancelled all burning permits because dried out vegetation increases the danger of forest fires. More than 5,300 fires have already burned an excess of 30,000 acres in North Carolina this year. Reduced water levels have forced the closing of some recreational facilities at state lakes.

For information on current drought conditions, go online to: www.ncdrought.org. State agencies that need guidance on water conservation measures should go to: www.sustainablenc.org/neguidance.htm. To find out more information on feed for livestock visit: www.ncagr.com/drought.

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