



# NC Water Use Programs

**Water Allocation Committee – March 10, 2021**

**Harold Brady, DWR**



# Outline:

- DEQ Water Use Data Registration Programs
  - Local Water Supply Planning
  - Central Coastal Plain Capacity Use Area (Registration)
  - Water Withdrawal and Transfer Registration
- NCDA&CS: Agricultural Water Use Survey
- How DWR uses water use and availability information
- Q&A



# Local Water Supply Planning (LWSP)

## G.S. 143-355(I) & 15A NCAC 02E .0604

- Established in 1989
- Local Water Supply Plan (LWSP)
  - Required for local governments and large community water systems with >1,000 connections or > 3,000 people
  - Assessment of a water system's current and future water needs and its ability to meet those needs
  - Contains a system's
    - water shortage response plan,
    - water efficiency plan
    - surface water transfer worksheets (if needed)



Falls Lake, in central North Carolina, during 2008 drought.

# LWSP Components:

- System Information
  - Distribution data, maintenance, conservation programs
- Water Use
  - Service area, use by type, sales/purchases
- Water Supply Sources
  - GW sources, SW sources, SW transfers
- Wastewater Information
  - Facilities, discharges and interconnections
- System Planning
  - 50-year projections, future sales/purchases and supplies,
  - Plan for meeting future water needs

NC DEQ Division of Water Resources  
**Local Water Supply Planning**

Overview | FAQ | Plans

**NEW Online Reporting**  
Updating Local Water Supply Plans has never been easier, but don't take our word for it. See for yourself...  
TAKE A TOUR | I'M READY TO GET STARTED!

**Helpful Tools**

- [AWWA Free Water Audit](#)
- [LWSP Completion Assistance Tool](#)
- [LWSP Completion Assistance Tool Checklist](#)
- [Workbook to determine Max Day Well Withdrawal](#)
- [LWSP Projections Evaluation Tool](#)
- [Small System Water Audit](#)
- [Small System Water Audit Presentation](#)

**Quick Search**

Choose a County...  
Choose a Sub-Basin...  
Choose a Reporting Year...  
Search

A Local Water Supply Plan is an assessment of a water system's current and future water needs and its ability to meet those needs. By understanding current and future needs, local governments will be better able to manage water supplies and better prepared to plan for water supply system improvements.

North Carolina General Statute [General Statute § 143-355\(f\)](#) requires all units of local government that provide or plan to provide public water service to prepare a Local Water Supply Plan. All community water systems that regularly serve 1,000 or more service connections or serve more than 3,000 people are also required to prepare a Local Water Supply Plan.

North Carolina Administrative Code [15A NCAC 02E .0604](#) requires all systems subject to General Statute § 143-355(f) to electronically submit an annual water use update based on their water use and system conditions by April 1st of every year for the period of January 1st to December 31st of the prior year.

<https://www.ncwater.org/WUDC/app/LWSP/index.php>

# Central Coastal Plain CUA Registration

## G.S. 143-215.13-19 & 15A NCAC 02E .0500

- Established in 2002 for 15 eastern counties
- Registration required for surface water/ groundwater withdrawals > 10,000 gpd

### CCPCUA Registration Components

- Applicant Information
- Water Use Purpose
  - Type and description of Water Use
  - Type of Water Source
  - Well & Pump Information
  - Source Capacity and Location
  - Number of Days Used
  - Average Daily and Max Day Withdrawal





# Water Withdrawal and Transfer Registration (WW&TR) Program

**G.S. 143-215.22H & 15A NCAC 02E .0301**

- Established in 1991
- Registration required for withdrawals or transfers:

<b>Non-Agricultural Users</b>	<b>Agricultural Users</b>
> 100,000 gallons of surface water or groundwater in any single day	> 1,000,000 gallons of surface water or groundwater in any single day

*Note:* Completing the NCDA&CS Agricultural Water Use Survey does not fulfill this requirement



# Registration Components:

- Facility Information
- Withdrawal Information
  - Average Daily and Max Withdrawal
  - Source Information & Type
  - Pumping Capacity
- Discharge Information
  - Average Daily and Max Discharge
  - Discharge Type & Capacity
- Interbasin Transfer Information
  - Description of Transfer
  - Source and Receiving Basins
  - Average Daily and Max Day Transfer
  - Transfer Capacity

NC DEQ Division of Water Resources

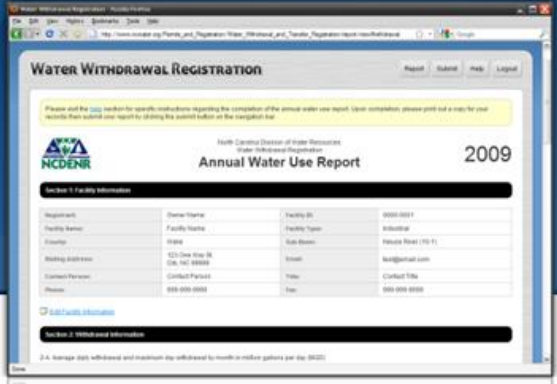
## Water Withdrawal and Transfer Registration

Overview Reports FAQ NCID Login

The easy way to report your water withdrawals.

In an effort to make reporting of water withdrawals easier, we would like to welcome you to our new online reporting system. It's the fast and simple way to meet your reporting requirements!

[GET STARTED NOW](#) [Need a paper form? View our FAQ](#)



**Water Withdrawal Registration**

Please visit the [FAQ](#) section for specific instructions regarding the completion of this annual water use report. Your completion please print out a copy for your records. Please submit your report by clicking the submit button on the top right of the page.

North Carolina Division of Water Resources  
Water Withdrawal Registration  
Annual Water Use Report 2009

**Section 1: Facility Information**

Equipment	Owner Name	Facility ID	0000-0001
Facility Name	Facility Name	Facility Type	Industrial
County	0000	Sub-Region	Northwest (10-1)
Address	123 Oak Street SE 000-000-0000	County	Northampton
Contact Person	Contact Person	Title	Contact Title
Phone	000-000-0000	Fax	000-000-0000

**Section 2: Withdrawal Information**

2.4 Average Daily Withdrawal and Maximum Day Withdrawal by withdrawal in month in million gallons per day (MGD)

**About Our Program**

North Carolina [General Statute § 143-215.22H \(15A NCAC 02E\\_0301\)](#), originally passed in 1991, requires surface water and ground water withdrawers who meet conditions established by the General Assembly to register their water withdrawals and surface water transfers with the State and update those registrations at least every five years. Agricultural water users that withdraw one million gallons of water a day or more and non-agricultural water users that withdraw one hundred thousand gallons of water a day are required to register. Administrative rules that became effective in March 2007 (15A NCAC 02E 0600) stipulate that registrants must also report their water usage annually to the Department of Environment and Natural Resources. In its 2008 session, the General Assembly established civil penalties for failure to comply with these requirements. The links above will provide you with the information and forms you need to comply with these requirements.

Persons who have a permitted or registered withdrawal facility under the [Central Coastal Plain Capacity Use Area](#), which includes the following counties (Beaufort, Carteret, Craven, Duplin, Edgecombe, Greene, Jones, Lenoir, Martin, Onslow, Pamlico, Pitt, Washington, Wayne, Wilson) and have reported water use data as required, have met the requirements of the water withdrawal and transfer registration program for that facility. No additional reporting is required for that facility.

<https://www.ncwater.org/WUDC/app/WWATR/page>

## # Ag Operations Reporting to DEQ WW&TR Program

> 1,000,000 gallons of surface water or groundwater in any single day

Reporting Year	# Ag Operations Reporting
1991	91
1993	123
1999	136
2004	45
2008	23
2009	33
2010	41
2011	35
2012	43
2013	43
2014	53
2015	53
2016	49
2017	50
2018	51
2019	48



# Agricultural Water Use Survey

## SL 2008-143

- Established 2008
- NCDA&CS required to collect annual information from farmers who withdraw  $\geq 10,000$  gpd in any one day
- Individual responses remain confidential, per existing confidentiality laws
- Response is voluntary

*Note:* Ag users > 1MGD in any one day are also required to report water usage to DEQ (WW&TR Program)



# Ag Water Use Survey Components

- Water Withdrawal Information
  - Operation Information
  - Annual Average Daily
  - Total Monthly Withdrawal
  - % GW & SW Used
  - # Days GW or SW Used
- Water Use Type
  - Type of Water Use
  - Type of Water Source
  - Source Capacity



# 2018 NC Agricultural Water Use Survey – County Summary

- Water use data collected from Agricultural water users in all 100 counties
  - “State” total represents all data collected
- Data from 38 counties provided at county scale
- Non-disclosed data (\*)
  - When one operation is greater than 60% of total  
-or-
  - Less than 3 operations reported
- Aggregated data (Other Counties<sup>4</sup>)
  - 62 of 100 counties
  - Non-disclosed data in 38 counties

County	Unique Operations <sup>1</sup>	Annual Average Daily <sup>2</sup> Ground	Annual Average Daily <sup>2</sup> Surface	Daily Withdrawal Capacity <sup>3</sup>
	<i>Number</i>	<i>Gallons</i>	<i>Gallons</i>	<i>Gallons</i>
Rockingham	14	*	103,402	10,662,383
Rowan	5	15,002	*	*
Sampson	105	2,146,576	*	54,718,082
Surry	10	61,413	*	*
Union	23	183,709	*	9,827,583
Wake	23	75,486	*	14,969,842
Warren	11	51,026	210,540	8,725,751
Wayne	25	457,542	*	9,534,874
Wilkes	10	74,399	*	1,610,952
Yadkin	6	71,121	*	1,169,461
Other Counties <sup>4</sup>	265	5,790,245	38,238,465	478,126,515
State	1025	16,931,763	43,227,079	1,200,116,130

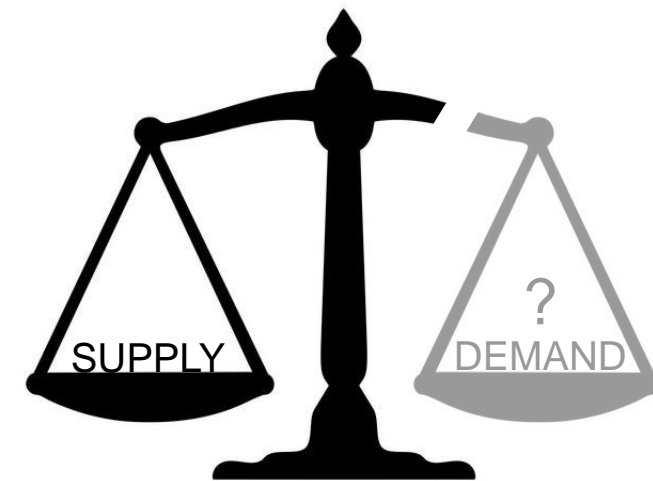
# 2018 NC Agricultural Water Use Survey

## Example: Chowan River Basin

County	Unique Operations (number)	Annual Average Daily Ground (gallons)	Annual Average Daily Surface (gallons)	Daily Withdrawal Capacity (gallons)
Bertie	*	*	*	*
Chowan	*	*	*	*
Gates	9	*	295,254	*
Hertford	12	148,068	*	*
Northampton	19	254,404	*	20,677,157

## How Does DWR Use Water Use and Availability Information?

- DWR provides water supply development assistance to local governments [G.S. 143-355(b)(16)]
  - Can local governments meet water supply needs?
  - Can local governments find appropriate water supply sources?
- DWR develops basinwide hydrologic models [G.S. 143-355(o)(3)(b)]
  - Is yield inadequate to meet all needs?
  - Is yield inadequate to meet all essential water uses?
- DWR responds to potential economic development projects inquiring whether there is sufficient water available for new/expanding industry



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