

Agricultural Water Use

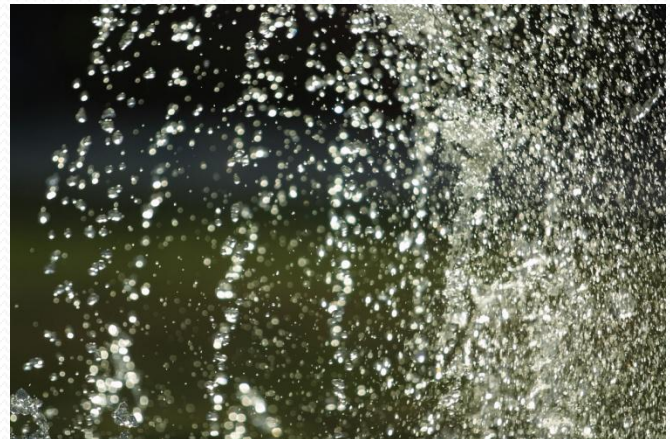
2010

- Drought in 2007-08 raises awareness of water supplies in North Carolina
- Legislation is discussed to better manage the state's water resources
- Information for agricultural water use is available for the CCPCUA (15 counties) but not statewide (except over 1 mil GPD)
- SL2008-0143 is passed in 2008 – Section 2 outlines collection of agricultural water use data



Legislation Requirements

- Annually collect water use data from operations using 10,000 GPD or more
- Collaborate with DENR in design of form
- Publish results by July 1
- Voluntary and Confidential



Survey Promotion

- Statewide WebCast September 2008
 - Commissioner Troxler, NCDA
 - Larry Wooten, President, NC Farm Bureau
 - All Commodity & Ag Organizations invited
- Commodity meetings
- County meetings
- Extension Offices



WATER USE ESTIMATION GUIDE

USE THIS GUIDE ONLY IF YOU ARE UNABLE TO COMPLETE
TABLE 1 OR 2 (please return with your questionnaire)

Name on Survey Label _____ DATE _____

1. HOGS If you had hogs, please tell us:

- What was the maximum number of hogs and pigs you had **at one time** in all of this operation's houses. _____
- Please check below the description(s) which apply to your operation.
☐ Nursery
☐ Finish Only
☐ Farrow to Wean
☐ Farrow to Feeder
☐ Farrow to Finish

2. POULTRY If you had poultry, please tell us:

- What was the maximum number of birds you had **at one time** in all of this operation's houses. _____
- Please check below the description(s) of the birds on your operation.
☐ Broiler
☐ Layers
☐ Turkeys
- On average, how many **consecutive** weeks are the houses **full**? _____
- On average, how many **consecutive** weeks are the houses **empty**? _____
- What were the dates that your houses were last empty?

3. CROPS If you used DRIP IRRIGATION, and don't know how many inches were applied, please tell us the following:

- How many feet between rows _____
- How many inches (spacing) between emitters _____
- Flow rate per hour per emitter _____

If you prefer personal guidance, please wait, and one of our phone enumerators will call you in late February or March.

WATER USE ESTIMATION TOOL

(USED **ONLY** FOR RESPONDENTS WHO DON'T HAVE METERS)

NAME _____ POID _____ DATE _____

Capacity

- What was your water source.... Ground or Surface?
- Tell me the pumping capacity of each of your motors (example: 30 gallons/minute and 500 gal/min).... (here's the math... $30\text{gal/min} \times 60\text{min} \times 24\text{ hours}$) + $(500\text{gal/min} \times 60\text{min} \times 24\text{ hours}) = (43,200 + 720,000) = 763200$

MOTOR NOTES:

HOGS

- What was the peak number of hogs and pigs you had at one time in ALL of this operations houses TOTALED together. _____
- What type of hog operation do you have (nursery, finish only, farrow to wean, farrow to feeder, farrow to finish) _____
 - How many **CONSECUTIVE** weeks are the houses full? _____
 - How many **CONSECUTIVE** weeks are they empty? _____
 - When were the empty weeks? _____

POULTRY

- What was the peak number of birds you had at one time in ALL of this operations houses TOTALED together. _____
- What type of poultry operation do you have (broiler, layers, turkeys) _____
 - How many **CONSECUTIVE** weeks are the houses full? _____
 - How many **CONSECUTIVE** weeks are they empty? _____
 - When were the empty weeks? _____

CROPS

- What months did you irrigate in? _____
- How many days did you irrigate in XXX (month name)? _____
- What was the maximum # of inches you applied on one acre in one day? _____
 - IF DRIP IRRIGATION.. and they don't know inches.. ask the following
 - How many feet between rows _____
 - How many inches (spacing) between emitters _____
 - Flow rate per hour per emitter _____
- What was the total # of inches you applied on one acre for XXX (month name)?
- What do you think the average # of acres were that you irrigated in one day? _____

Survey Results - 2010

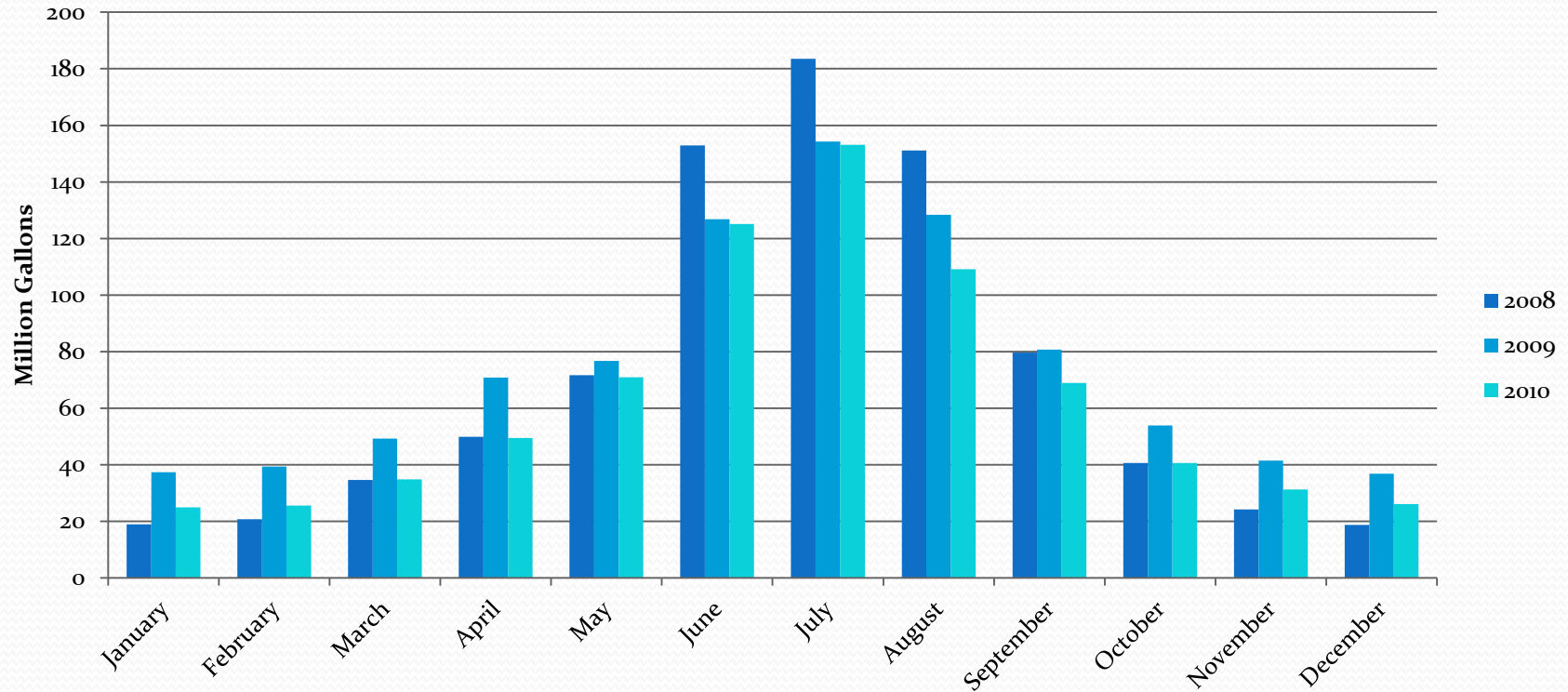


Highlights

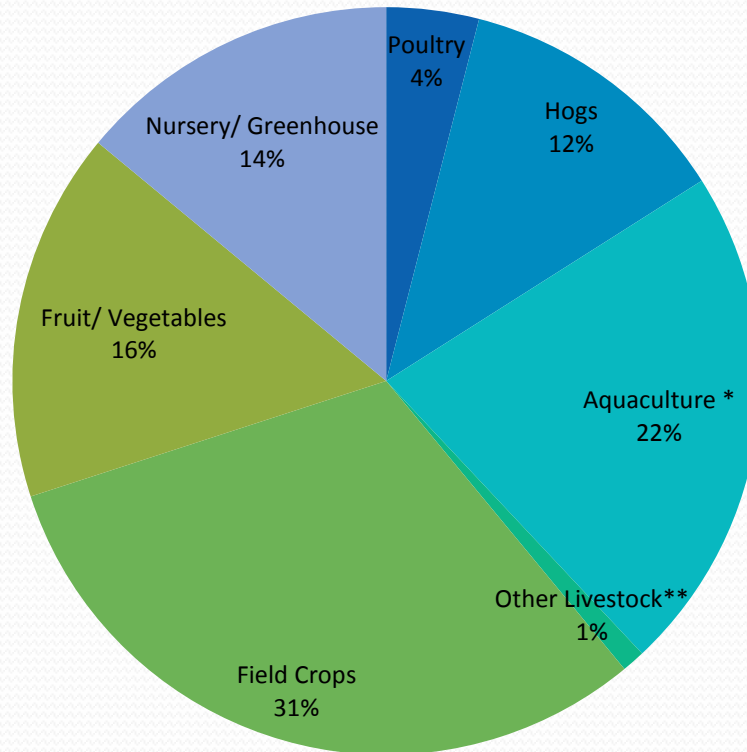
- 92% Response Rate
- New Defensibility Statement
- # of Operations using 10,000 +
 - 2010 – 1420
 - 2009 – 1372
 - 2008 - 1498
- Average Daily Use
 - 2010 – 63.3 million gallons
 - 2009 – 74.6 million gallons
 - 2008 – 70.5 million gallons

Historical Comparison by month

Average Across All Days
Ground & Surface Water Withdrawals
2008 - 2010



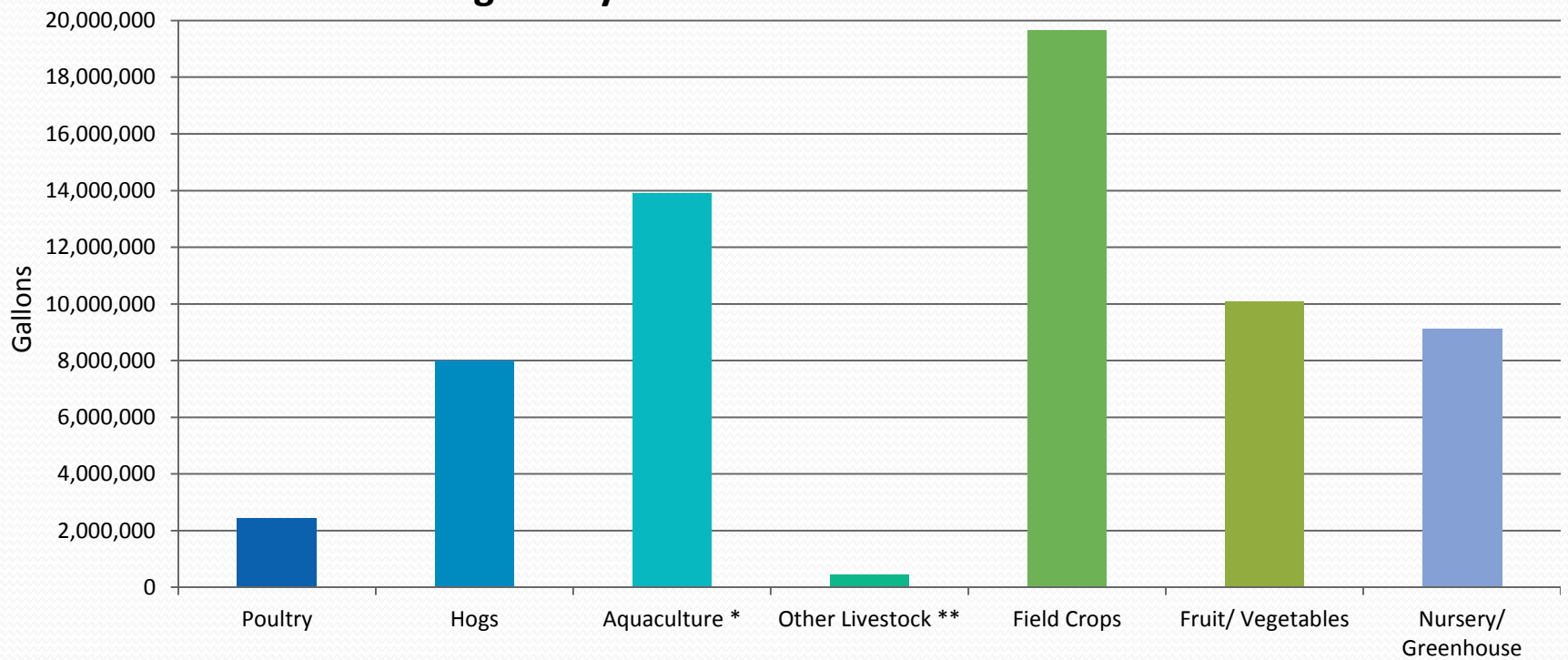
Annual Water Withdrawals by Percent



* 97% of aquaculture water withdrawals occur in western counties from rivers and streams and are typically flow through.

** Other Livestock includes cattle, horses, goats, sheep etc.

Average Daily Water Withdrawals

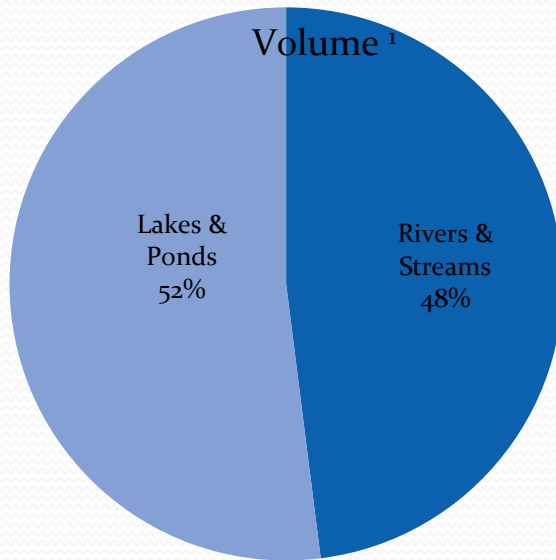


* 97% of aquaculture water withdrawals occur in western counties from rivers and streams and are typically flow through.

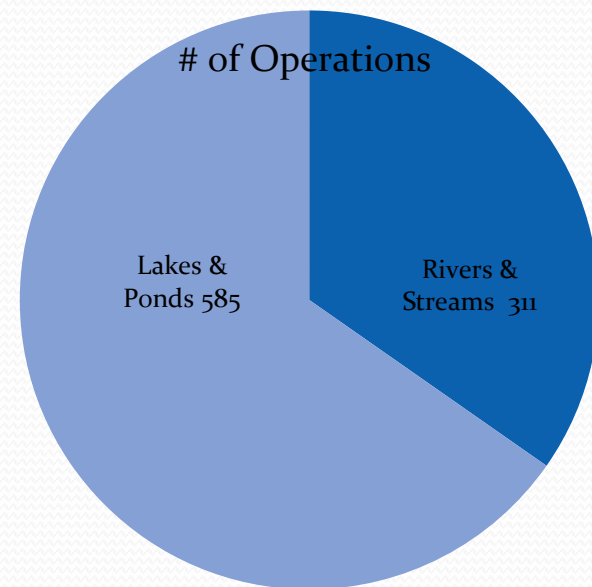
** Other Livestock includes cattle, horses, goats, sheep etc.

Annual Surface Water Withdrawals

Volume



Of Operations



¹ 33% of River & Stream Withdrawals are made by aquaculture operations from the western portion of the state and are typically flow through.

Benefits

- Statewide agricultural water use data
 - Survey based
 - Defensible
 - Confidential
- Public/private collaboration
- Farmer awareness of use
- Document individual farm water needs



Appreciation

- NCDA&CS
- Farm Bureau
- Commodity Associations
- NC Cooperative Extension
- NCSU
- NC Foundation for Soil and Water Conservation

