



Steve Troxler
Commissioner

**North Carolina Department of Agriculture
and Consumer Services**
Division of Soil and Water Conservation

Patricia K. Harris
Director

Memorandum

TO: Environmental Review Commission

FROM: Patricia K. Harris, Director *by [Signature]*

Date: January 31, 2014

RE: 2013 Annual Report on the Agricultural Water Resources Assistance Program

This memo transmits the 2013 Annual Report on the Agricultural Water Resources Assistance Program as required by General Statute 139-60. The statute requires the Soil and Water Conservation Commission to provide annual reports to the Environmental Review Commission.

If you have any questions or need additional information, please contact me at (919) 715-6097 or by email at pat.harris@ncagr.gov.

Enclosure

cc: Commissioner Steve Troxler
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AGRICULTURAL WATER RESOURCES ASSISTANCE PROGRAM
§ 139-60
FISCAL YEAR 2013 ANNUAL REPORT
January 2014

Background

The North Carolina Agricultural Water Resources Assistance Program was authorized through Session Law 2011-145, and became effective on July 1, 2011. This program, referred to as AgWRAP, was established to assist farmers and landowners in doing any one or more of the following:

- Identify opportunities to increase water use efficiency, availability and storage;
- Implement best management practices (BMPs) to conserve and protect water resources;
- Increase water use efficiency;
- Increase water storage and availability for agricultural purposes.

Public benefit of this program is achieved by the following:

- Reducing competition for water resources by public users
- Improving the efficient use of water while enabling the industry to produce food, fiber and other agricultural products
- Preparing the agricultural industry to weather future droughts
- Generating and protecting local jobs in agriculture and agribusiness

AgWRAP is administered by the North Carolina Soil and Water Conservation Commission and implemented through local soil and water conservation districts. The commission meets with stakeholders to gather input on AgWRAP's development and administration through the AgWRAP Review Committee. AgWRAP has received the following state appropriations:

- FY2012: \$1,000,000
- FY2013: \$500,000
- FY2014: \$1,000,000; \$500,000 available statewide, \$500,000 limited to counties affected by the Tennessee Valley Authority (TVA) settlement: Avery, Buncombe, Burke, Cherokee, Clay, Graham, Haywood, Henderson, Jackson, Macon, Madison, McDowell, Mitchell, Swain, Transylvania, Watauga and Yancey counties.

Up to 15% of these funds can be used by the Division of Soil and Water Conservation and districts to provide technical and engineering assistance, and to administer the program.

In FY2012, the commission conducted a statewide request for applications for building new agricultural water supply ponds, funding 21 new ponds. In addition, the commission allocated \$510,000 to 69 soil and water conservation districts who requested an allocation for other AgWRAP practices including: agricultural pond repair/retrofit, agricultural pond sediment removal, conservation irrigation conversion, micro-irrigation system, and well. In FY2013, the commission allocated all available funds through a statewide request for applications for building new agricultural water supply ponds, funding 28 new ponds.

Fiscal Year 2013 Annual Goals

I. Conduct a competitive state allocation for new agricultural water supply ponds

a. Fund a minimum of one pond per geographic area: Coastal Plain, Piedmont, Mountains

In FY2013, the commission funded ponds in each geographic area of the state:

- Coastal Plain: 11 ponds
- Piedmont: 13 ponds
- Mountains: 4 ponds

b. Fund a minimum of 25 ponds with this year's appropriated funding.

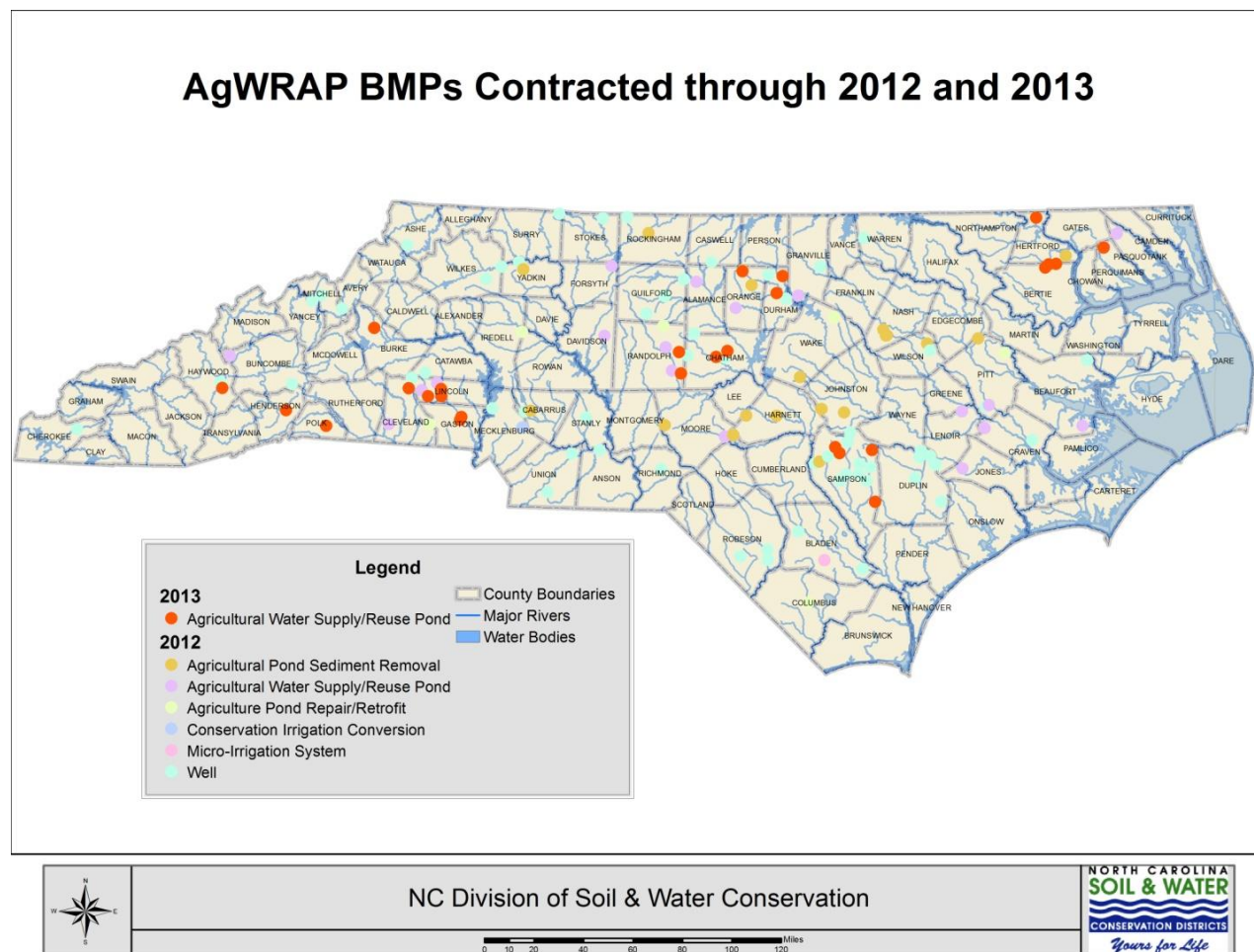
In FY2013, the commission conducted a statewide request for applications for building new agricultural water supply ponds with all AgWRAP BMP funding appropriated for the year. With the funding available, all 28 applications received for new ponds were approved, and design and construction of these water supplies is underway. During calendar year 2013, three contracts were canceled for various reasons. Figure 1 depicts the contracts encumbered using FY2012 and FY2013 AgWRAP funding.

c. Distribute funding for ponds among the following agricultural sectors identified in the *Protecting Agriculture Water Resources in North Carolina Strategic Plan (February 2011)*: aquaculture, field crops, forestry, fruit and vegetable, green industry, livestock and poultry (and forages and drinking water for same).

In FY2013, the commission funded ponds in the following agricultural sectors:

- Aquaculture: 0 (no applicants)
- Field crops: 10 ponds
- Forestry: 0 (no applicants)
- Fruit and vegetable: 10 ponds
- Green industry: 2 ponds
- Livestock and poultry: 6 ponds

Figure 1: FY2012 and FY2013 Agricultural Water Resources Assistance Program Contracts



II. Implement the Job Approval Authority Process for AgWRAP BMPs

a. Expand job approval categories for investigations and evaluations.

In FY2013, the commission continued to approve employee requests for the following job approval categories:

- Pond site assessment
- Sediment removal planning and certification
- Water needs assessments

To date, 25 conservation partnership employees representing 19 districts have obtained job approval authority for one or more of the categories above.

b. Provide training for district employees to earn job approval.

In FY2013, the division conducted training on the approved job approval categories. Pond site assessment and water needs assessment training was provided during the Conservation Employee Workshop in August 2012.

c. Maintain the job approval database.

The Division of Soil and Water Conservation maintains a database including the categories described above. A list of employees with job approval authority is available at:

http://www.ncagr.gov/SWC/professional_development/JAA.html

III. Conduct training for districts

a. Continue to train districts on the program.

The division continued to provide training opportunities on the program, in FY2013 focusing on technical trainings about planning for ponds and water needs assessment as described in II.b. above. During the remainder of FY2013, the division's technical services staff provided training and support by working directly with district employees when reviewing potential pond sites. In partnership with the Foundation of Soil and Water Conservation Districts, the division will be hosting a series of trainings in FY2014 for district employees to gain skills for planning a pond, pond construction oversight and pond design.

b. Provide training and support on the North Carolina Water Needs Assessment Tool.

On August 16, 2012, as part of the Conservation Employees Training, the division organized a three hour training titled *Completing an Agricultural Water Use Assessment*. This session was led by the tool's developer, Dr. Garry Grabow, Associate Professor and Extension Leader for the NCSU Department of Biological and Agricultural Engineering.

c. Maintaining the AgWRAP website

The division continues to maintain the AgWRAP information online for easy access for districts, cooperators and partners. AgWRAP program information including BMP policies can be accessed at: <http://www.ncagr.gov/SWC/costshareprograms/AgWRAP/index.html>. Practice planning and design tools, including the Water Needs Assessment Tool for NC described above, are available at: <http://www.ncagr.gov/SWC/tech/online design tools.html>.

IV. Additional Activities

a. Micro-irrigation Checklist and Outreach

Division staff, NRCS Staff and NCSU worked on a cooperative effort to draft a micro-irrigation checklist for designers to utilize when planning new systems to be eligible for cost share assistance. This group developed the checklist to ensure that designs would meet the NRCS standard.

In addition to the checklist, these partners held two trainings to discuss the basic requirements of the NRCS standard. On August 14, 2012, as part of the Conservation Employees Training, the division coordinated a 2 ½ hour session titled *Irrigation Design Introductory Class*. This training

was led by Terri Ruch, NRCS State Engineer and Hamid Farahani, NRCS Water Management Engineer.

On November 7th, 2012, the 48th Annual Irrigation Conference covered the following topics as an additional outreach effort to address the design requirements of micro-irrigation systems:

- *Cost Share Programs for Micro-irrigation Systems in North Carolina Micro-irrigation Checklist; Terry Ruch, NC NRCS, Hamid Farahani, NRCS*
- *Design of Micro-irrigation Systems to Meet Cost-Share Requirements; Erwin Newell, Keith Sawyer, and Dave Elliot, BB Hobbs Company, Inc.*
- *Micro-irrigation for Fruits and Vegetables; David and Jason Graham, Gra-Mac Distributing Company*
- *Variable Rate Irrigation with Center Pivots; Ken Stone, Coastal Plains Soil, Water, and Plant Research Center*

AGRICULTURAL WATER RESOURCES ASSISTANCE PROGRAM
Pictures of selected practices



Irrigation well



Agricultural water supply/reuse pond



Agricultural pond sediment removal