



**Steve Troxler**  
Commissioner

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

**Patricia K. Harris**  
Director

**THE NORTH CAROLINA AGRICULTURAL WATER RESOURCES ASSISTANCE PROGRAM**

**AgWRAP Review Committee: DRAFT Minutes**

Monday, July 30, 2012: 9:00am-12:00pm

NCDA&CS Agronomic Services Division conference room, 4300 Reedy Creek Road in Raleigh

Attendees: Greg Hughes, Vernon Cox, Tom Hill, Tom Ellis, Julie Henshaw, Natalie Woolard, Daphne Cartner, Dewitt Hardee, David Williams, Kelly Whitaker, Marvin Cavanaugh, Kelly Ibrahim, Tommy Stephens, Chester Lowder, Gary Higgins, Ed Emory, Teresa Furr

**I. Welcome and introductions**

Julie Henshaw opened the meeting, and introductions were made.

**II. Minutes from June 28, 2012 meeting**

The minutes of the June 28, 2012 meeting were approved by consensus.

**III. Conservation irrigation conservation and micro-irrigation BMPs**

**a. Job approval authority**

The following policy will be added to the micro-irrigation system and conservation irrigation conversion BMPs:

*The following persons are eligible to sign for job approval authority: District or NRCS staff with appropriate job approval authority, a NC licensed irrigation contractor, a technical specialist with irrigation designation, a person with design certification by National Irrigation Association or professional engineer.*

Links to appropriate websites will be available for district use for verifying job approval authority. These websites are resources available for districts, not an implied recommendation for any individual or company listed.

**b. NRCS Standard exceptions**

A meeting will be held on Tuesday, July 31<sup>st</sup> at 10:00 in the NRCS State Office Conference Room – 4407 Bland Road Suite 117, Raleigh to discuss NRCS standard requirements and the challenges it poses for North Carolina, specifically for small operations. The lack of designers familiar with the standard and ability to produce designs that meet this standard for small operations is a problem that many southeastern states are experiencing right now.

MAILING ADDRESS  
Division of Soil and Water Conservation  
1614 Mail Service Center  
Raleigh, NC 27699-1614

Telephone: 919-733-2302  
Fax Number: 919-733-3559

**An Equal Opportunity Employer**

LOCATION  
Archdale Building  
512 N. Salisbury Street, Suite 504  
Raleigh, NC 27604

The following people will be participating in this meeting:

Terri Ruch – NRCS Engineer at State Office (has been acting State Engineer since Tommy Cutts Retired)

Dean Bingham – NRCS Area 3 Engineer (invited not confirmed)

Jill Malton – NRCS Area 2 Engineer (invited not confirmed)

Dr. Hamid Farahani – Water Management Engineer, NRCS ENTSC Greensboro

Dr. Garry Grabow – Irrigation Eng. Specialist, NCSU BAE

Jeff Young – Division Engineer Asheville Region

Tim Kennedy – Division Engineer Raleigh Region

Once the standard requirements are set, it would be helpful to obtain cost estimates from contractors for bidding on the design for the plan required. This will help districts share approximate estimates with applicants.

#### IV. **DRAFT PY2013 Detailed Implementation Plan**

The committee reviewed the PY2012 detailed implementation plan and made revisions for the draft PY2013 plan. Please refer to the attachment A: Draft PY2012 detailed implementation plan for more information.

Natalie Woolard introduced a new BMP, the agricultural water collection system. Please refer to attachment B: agricultural water collection system BMP for more information. This BMP was developed for the Agriculture Cost Share Program (ACSP). In effort to maintain consistent BMPs for both AgWRAP and the ACSP, pending Commission approval, this BMP will be recommended for inclusion in AgWRAP for PY2014. This year, the existing agricultural water supply/reuse pond will meet the needs for AgWRAP.

The committee made the following recommendations regarding this BMP:

- Widen the potential scope of practice by removing “aquaculture and nursery” from the definition.
- Add language to the definition to include temporary water storage tanks in addition to ponds
- Add language to clarify providing justification if multiple pumps are necessary. Draft language is available below:  
*If installing multiple pumps, a portable pump should be used in its place. If a portable pump is not used, a written justification is required. This justification will determine whether one or more pump can be approved for cost share payment.*
- Add language to clarify replacement of equipment. The language from ACSP General Policies is available below:  
*Operators who receive Cost Share funds for the purchase of equipment are prohibited from using the Cost Shared equipment as collateral during the maintenance period. In addition, if the Cost Shared equipment is sold during the maintenance period, the operator must repay the State a pro-rated amount of the original Cost Share payment.*

#### V. **PY2013 State Pond Application Cycle: \$425,000**

The Commission approved using all PY2013 AgWRAP funds for a statewide, competitive application process for the agricultural water supply/reuse pond practice

##### a. **Draft timeline for applications and review**

Soil and Water Conservation Commission opens application period for state allocation for pond contracts	August 14
Districts submit pond contracts to Division of Soil and Water Conservation	August 14 –November 16
State pond applications reviewed according to approved criteria	November 16 – December 14
Soil and Water Conservation Commission approves state pond contracts	January 6

**b. DRAFT PY2013 Average Cost List**

At the last meeting, the committee recommended using the same average cost list as adopted last year. There are no recommended changes.

**c. Ranking criteria**

The committee reviewed last year's ranking process. Please see recommended changes below. In addition, the committee will be considering the how to incorporate the following items: district board approval (clarify role of board, how would districts rank their applications if they submit multiple applications); points for site suitability (include analysis from technical staff – engineers and soil scientists), points for different types of ponds, etc. Refer to attachment C: pond evaluation criteria

**d. Engineering design**

Tabled until next meeting due to time constraints.

**VI. PY2012 unencumbered or cancelled BMP funds: \$89,795**

The committee discussed what should be done with the remaining funds from FY2012. Many districts submitted contracts with the hopes of submitting a supplement contract from PY2013. However, other districts chose not to submit a contract because they did not receive a large enough allocation to fund the project. Since there are no district allocations for PY2013, several districts have expressed interest in allowing remaining PY2012 funds to be available for supplements on a first come, first served basis. The division will draft options for commission consideration: one including the supplement option, the other including another method for distributing the funds.

VII. **Water Needs Assessment Tool for NC** - tabled until next meeting due to time constraints

V. **Pond Site Assessment Form** - tabled until next meeting due to time constraints

VI. **NC Ag Advancement Consortium proposal** - tabled until next meeting due to time constraints

VII. **Set next meeting date** – doodle poll for dates during the last two weeks of August

**THE NORTH CAROLINA AGRICULTURAL WATER RESOURCES ASSISTANCE PROGRAM (AgWRAP)**  
**Fiscal Year 2013 Detailed Implementation Plan**  
**August 2012**

**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, herein 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.

AgWRAP is administered by the North Carolina Soil and Water Conservation Commission and implemented through local soil and water conservation districts. The Commission is required to meet with stakeholders annually to gather input on AgWRAP's development and administration. This year, the AgWRAP Review Committee was created and numerous agencies, organizations, and partners that participate in this committee are meeting regularly to develop recommendations for Commission consideration for this program. AgWRAP was allocated \$1,000,000 in FY2012 and in \$500,000 in FY2013 in non-recurring state appropriations, of which up to 15% of 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.

**Fiscal Year 2013 Allocation Strategy**

The Commission will use all FY2013 funding for a competitive state application process for building new agricultural water supply ponds: \$425,000 (100% of available BMP funding, 85% of available funding) Funding for the state allocation is only available for the agricultural water supply pond BMP.

**Program Guidelines**

AgWRAP will be implemented using a pilot approach for this second year, and rule drafting will begin this year based on program implementation experience.

The agricultural water definition, from Protecting Agriculture Water Resources in North Carolina Strategic Plan (February 2011) will be used to determine eligibility for AgWRAP.

*Agricultural water is considered to be any water on farms, from surface or subsurface sources, that is used in the production, maintenance, protection or on-farm preparation or treatment of agriculture commodities or products as necessary to grow and/or prepare them for on-farm use or transfer into any form of trade as is normally done with agricultural plant or animal commerce. This expressly includes any on-farm cleaning or processing to make the agricultural product ready for sale or other transfer to any consumer in a usable form. It does not include water used in the manufacture or extended processing of plants or animals or their products when the processor is not the grower or producer and/or is beyond the first handler of the farm product.*

All eligible operations must have been in existence for more than one year, and expansions to existing operations are eligible for the program.

The percent cost share for all BMPs is 75%. Limited resource and beginning farmers and farmers enrolled in Enhanced Voluntary Agriculture Districts are eligible to receive 90% cost share. The contract maintenance period of the majority of practices is 10 years.

Soil and water conservation districts can adopt additional guidelines for the program as they implement AgWRAP locally.

### **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
  - b. Fund a minimum of 25 ponds with this year's appropriated 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).
  
- II. Implement Job Approval Authority Process for AgWRAP BMPs
  - a. Expand job approval categories for investigations and evaluations.
  - b. Provide training for district employees to earn job approval.
  - c. Maintain the job approval database.
  
- III. Conduct training for districts
  - a. Continue to train districts on the program.
  - b. Provide training and support on the North Carolina Water Needs Assessment Tool.
  - c. Maintain the AgWRAP website (<http://www.ncagr.gov/swc/agwrap.htm>) with all relevant information.

### **Best Management Practices**

(1) Agricultural water supply/reuse pond: Constructing agricultural ponds for water supply for irrigation or livestock watering. Benefits may include water supply, erosion control, flood control, and sediment and nutrient reductions from farm fields. The minimum life expectancy is 10 years.

(2) Agricultural pond sediment removal: Remove sediment from existing agricultural ponds to increase water storage capacity. Benefits may include water supply, erosion control, flood control, and sediment and nutrient reductions from farm fields. The minimum life expectancy is 1 year. Cooperators are ineligible to reapply for assistance for this practice for a period of 10 years; unless the sedimentation is occurring due to no fault of the cooperator.

(3) Agricultural pond repair/retrofit: Repair or retrofit of existing agricultural pond systems. Benefits may include water supply, erosion control, flood control, and sediment and nutrient reductions from farm fields. The minimum life expectancy is 10 years.

(4) Conservation Irrigation Conversion: Modifies an existing overhead spray irrigation system to increase the efficiency and uniformity of irrigation water application. The minimum life expectancy is 10 years.

(5) Micro-irrigation System: An environmentally safe system for the conveyance and distribution of water, chemicals and fertilizer to agricultural fields for crop production. A micro-irrigation system is for frequent application of small quantities of water on or below the soil surface: as drops, tiny streams or miniature spray through emitters or applicators placed along a water delivery line. This practice may be applied as part of a conservation management system to efficiently and uniformly apply irrigation water and maintain soil moisture for plant growth. The minimum life expectancy is 10 years.

(6) Well: Constructing a drilled, driven or dug well to supply water from an underground source. The minimum life expectancy is 10 years.

## Agricultural Water Collection System

### Definition/Purpose

Construct an agricultural water collection system for water reuse or irrigation for aquaculture and nursery operations. These systems may include construction of new ponds or utilizing existing ponds in order to intercept sediment, nutrients and chlorophyll a, reduce demand on the water supply by reuse, and decrease withdrawal from aquifers.

### Policies

1. The pond shall be for agricultural use.
2. The Preliminary Site Assessment Tool for new ponds must be completed.
3. The pond(s) must be certified by a professional engineer or an individual with appropriate job approval authority.
4. The pond(s) must be designed to the references below based on its hazard classification:
  - a. Low Hazard Classification – All designs must meet either NRCS Standard 378 (Pond) or the NC Dam Safety Law (15A NCAC 02K .0100) regardless of if they fall under the Dam Safety Permitting Requirements. The design components may not be mixed within the two standards.
  - b. Intermediate Hazard Classification – All designs must meet the NC Dam Safety Law (15A NCAC 02K .0100) regardless of if they fall under the Dam Safety Permitting Requirements.
  - c. High Hazard Classification – All designs must meet NC Dam Safety Law (15A NCAC 02K .0100)
5. Cost share for this practice includes pond construction and needed pumps to recycle the water throughout the system. Irrigation equipment is not eligible for this practice.
6. Costs are based on the average cost list. Total cost share cannot exceed a total of \$15,000 per system, plus engineering costs up to \$7,500 if required.
7. Operation and Maintenance Plan is required.
8. Cooperators are responsible for obtaining and complying with all required permits.
9. Minimum life of BMP is 10 years.
10. If the pond is no longer used for the purpose of the practice during the maintenance period, the cost share contract shall be considered out of compliance.
11. The District shall inspect the site annually during the maintenance period.

Specifications

North Carolina NRCS Technical Guide, Section IV, Code 313 (Waste Storage Facility), Code #378 (Pond), Code #402. (Dam), NRCS Fact Sheet: Preliminary Site Assessment for New Ponds.

Attachment C: DRAFT PY2013 pond application evaluation criteria

Pond evaluation criteria	Response	Point values	Comments
<b>Demonstrated water use need</b>			
<del>What percent of your water use demand is reliably provided by existing water sources? Replace with outputs from the Water Needs Assessment Tool for NC</del>	%	15	Total point value for combined question = 30; multiply each percent by 0.3 to obtain number of points; if points remain = 15; multiply each percent by 0.15 to obtain number of points. For this question subtract value from 1.
<del>What percent of total water use demand could be supplied by the pond in this application? Replace with outputs from the Water Needs Assessment Tool for NC</del>	%	15	Multiply each percent by 0.15 to obtain number of points.
<del>How is your production limited by the amount of water you have access to? Please explain (25 word limit explaining the limitations). Replace with a comment section for districts and/or applicants to share information about the application. No points assigned</del>	text	10	Use as a tiebreaker only
<del>How is your existing water supply limiting your ability to adapt to changing markets? Please explain (25 word limit explaining what the producer is trying to move towards). Replace with a comment section for districts and/or applicants to share information about the application. No points assigned</del>	text	10	Use as a tiebreaker only
Do you use a public water system? Yes/No	Yes/No		Information only
What percent will this pond decrease your dependence on a public water system or <del>identified as a "threatened" (ex. CCUA, others, data from DWR)? the Central Coastal Plain Capacity Use Area (CCPCUA)</del>	%	30	Total point value for combined question = 30; multiply each percent by 0.3 to obtain number of points.
<b>Reducing stress on existing water resources</b>			
<del>Geographic location of proposed pond location: Recommendation: % under weighted measure of US Drought Monitor (5-10yrs - DO-D4)</del>	Lat/long	30 or 20	Consider decreasing weight by 10 points, 20 points instead of 30 points
<b>Site considerations</b>			

Attachment C: DRAFT PY2013 pond application evaluation criteria

What water conservation measures (steps taken to improve efficiency ) are on the operation currently? Have district list - then assign points as described		30	Set points per measure, max of 30 points
401/404 exemption, permit or determination of no permit required obtained	Yes/No	10	
Design complete	Yes/No	5	Fewer points to be sensitive to Division engineering workload. Note that up to \$7,500 (75% of actual cost) can be used for private engineers to complete designs per pond.
Farm is enrolled in a Voluntary Agriculture District	Yes/No	5	
Farm is enrolled in an Enhanced Voluntary Agriculture District	Yes/No	10	
<b>TOTAL</b>	-	<del>170</del> <b>160</b>	

**Revisit water conservation measures point values for PY2013**

Listed below are the point values used for the responses from last year’s cycle. Maximum points for this question = 30; original recommendation was that each practice would receive 3 points; but was revised and the workgroup point value was used.

\*Question: should the acres under the BMP be taken into consideration (ex. no-till, micro-irrigation, etc). Last year if the practice was employed, the application received the points.

Responses received	Workgroup Point Value
No-till	3
Waterers	0
Micro-irrigation / drip irrigation	15
water usage survey	3
cut back on flushing of all ponds between harvesting fish and receiving new fish	10
transfer of water emptied ponds	10
Cover crops (should the acres in the operation under the practice be taken into consideration when assigning points?)	3
grow on contours	0
plant fescue on fields in rotations (2-3 years)	0
shredded leaf mulching and incorporation of mulch	3
subsoil to 30" and bed height profile of 5"	0
conservation irrigation, nozzles on guns emit lower rate	5
Growing crops on plastic / plastic mulches to reduce moisture loss	10
irrigate at night to reduce evaporation	7
use water meter to track water usage	3
use split applications of irrigation to allow water to soak in before applying more water	0
Strip-cropping	0