



Steve Troxler  
Commissioner

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

Patricia K. Harris  
Director

October 9, 2012

**MEMORANDUM**

**TO:** Environmental Review Commission  
Fiscal Research Division  
Legislative Affairs

**FROM:** Patricia K. Harris *Patricia K. Harris*

**SUBJECT:** 2012 Annual Report on the Implementation of the Lagoon Conversion Program  
2012 Semi-annual Report on the Pilot Program for the Inspection of Animal Waste Management Systems

Enclosed is the 2012 Annual Report on the Lagoon Conversion Program as required by S.L. 2007-523, and the Semi-annual Report on the Pilot Program for the Inspection of Animal Waste Management Systems as required by S.L. 2003-340. The session laws require the Division of Soil and Water Conservation to provide these reports to the Environmental Review Commission and Fiscal Research Division.

If you have any questions or need additional information, please contact me at 715-6097 or by email at [Pat.Harris@ncagr.gov](mailto:Pat.Harris@ncagr.gov).

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# ANNUAL REPORT TO THE ENVIRONMENTAL REVIEW COMMISSION OF THE NORTH CAROLINA GENERAL ASSEMBLY ON THE IMPLEMENTATION OF THE LAGOON CONVERSION PROGRAM

## INTRODUCTION

In 2007, the North Carolina Lagoon Conversion Program (LCP) was established by the North Carolina General Assembly. The LCP is administered by the NC Division of Soil and Water Conservation (DSWC) through the existing North Carolina Agriculture Cost Share Program. The purpose of the LCP is to promote adoption of innovative swine waste management technologies that meet specific performance standards. Under the LCP, swine producers may submit applications to convert existing lagoon and sprayfield systems to innovative animal waste management systems. Swine farms in operation on or before September 1, 2007 are eligible for financial assistance to install the selected technology. The program is authorized to provide assistance according to a declining schedule designed to reward early participants in the program. The schedule is shown in Table 1 below.

Table 1: Authorized cost share rates and maximum awards over time.

<b>Contract Award Date</b>	<b>On or before June 30, 2012</b>	<b>July 1, 2012 – June 30, 2017</b>	<b>On or after July 1, 2017</b>
Maximum cost share percentage	90%	80%	75%
Maximum Annual cost share award	\$500,000	\$450,000	\$400,000

Eligible projects must meet the following performance standards:

- Eliminate direct discharge, seepage or runoff.
- Substantially eliminate ammonia emissions.
- Substantially eliminate odor.
- Substantially eliminate disease-transmitting vectors and pathogens.
- Substantially eliminate nutrient and heavy metals in soils and groundwater.

## **LCP ADVISORY COMMITTEE**

In accordance with Section 2.(e) of S.L. 2007-523, the Director of the Division of Soil and Water Conservation established an advisory committee to assist the Division with implementation of the Lagoon Conversion Program. The entire committee has met a total of five times. In addition, various subcommittees of the advisory group have met to address specific issues. The Advisory Committee is comprised of representatives from the following agencies and organizations:

- USDA-Natural Resources Conservation Service (NRCS)
- N.C. Sierra Club
- Frontline Farmers
- N.C. Dept. of Agriculture and Consumer Services
- Tar-Pamlico River Foundation
- N.C. Pork Council
- Environmental Defense Fund
- NCDENR-Division of Water Quality
- NCSU-NC Animal and Poultry Waste Management Center

## **LCP IMPLEMENTATION**

In 2007-08 the Division of Soil and Water Conservation, with input and assistance from the LCP Advisory Committee, selected three participants in Sampson County to receive LCP funding to install innovative technologies. One of the applicants declined to sign the Agriculture Cost-Share Agreement due to concern about the risk of implementing new waste management technology given the current economic difficulties facing the swine industry. As a result, only two projects were funded from Round 1 applications.

Section 2.(d)5 of S.L. 2007-523 directs the Division to "investigate and pursue other funding sources to supplement State funds, including federal, local, and private funding sources." In accordance with this directive, the Division has actively pursued additional funding opportunities for the LCP.

In 2009 the Division proposed and was approved for a Cooperative Conservation Partnership Initiative (CCPI) Agreement with the USDA Natural Resources Conservation Service. The CCPI agreement established a partnership between the Division of Soil and Water Conservation and the USDA-Natural Resources Conservation Service to

provide funding to swine farmers who switch from conventional swine lagoons to more environmentally-friendly and innovative waste management systems. The CCPI agreement established three priority levels for producer applications, with the highest priority being assisting applicants to install innovative waste treatment technology that would meet the Swine Waste Management System Performance Standards as specified in 15A NCAC 02T.1307.

Table 2 lists the status of the eight projects that have been contracted using Lagoon Conversion Program funds as selected through rounds 1-4. Five of the projects were awarded supplemental funding through the CCPI.

In the spring of 2012, four of the farms under contract to install the Supersoils system (now called Terra Blue) notified the Division and NRCS of their intent to cancel both their Lagoon Conversion Program contracts and their CCPI contracts citing concerns about the cost and operation of the technology. None of the four farms had begun construction. These operations were the Rosin Hill Farm, Larry Naylor Farm, G&R West Farm, and C.B. Barefoot Farm, all in Sampson County. The canceled CCPI contracts resulted in reversion of \$1,627,554 of USDA funds.

Also in the spring of 2012, the Douglas Jernigan Farm in Wayne County canceled its LCP contract to implement the Supersoils technology citing a change of plans.

To date, two LCP contracts have been fully implemented (Loyd-Ray Farm in Yadkin County, and Supersoils Centralized Composting Operation in Sampson County). One contract has been partially implemented (Tyndall Hog & Chicken Farm in Sampson County), and five have been terminated by the cooperating farmers.

## **LCP Account Status**

Section 3 of Session Law 2007-523 established the Swine Farm Waste Management Conversion Account and provided an initial allocation of \$2,000,000 to be used LCP authorized expenditures. Funds from this account have been used as follows:

FY 2007-08 One-Time Appropriation	\$2,000,000.00
Total contract expenditures to date:	\$934,280.00
Total encumbrance remaining in 1 contract	\$180,720.00

DENR Budget Reversion for FY 2008-09:	\$400,000.00
Miscellaneous Operating Expenses to date:	\$6,952.84

Unexpended LCP Account Funds	\$658,767.16
Unencumbered LCP Account Funds	\$478,047.16

USDA-CCPI Supplemental Expenditures (Loyd-Ray Farm):\$385,000.00

## **NEXT STEPS**

The Division continues to receive inquiries from swine producers interested in implementing innovative lagoon conversion technologies. The Division plans to offer a new request for proposals in the fall/winter of 2012 to assist additional swine operations to convert to innovative technology. The Division will seek to leverage additional funds from USDA and other sources to further stretch the remaining LCP funds.

The Division continues to work with the cooperating producers, NC Division of Water Quality (DWQ), USDA-NRCS, the NC Animal and Poultry Waste Management Center and other interested parties to implement lagoon conversion projects.

The Division of Soil and Water Conservation has secured funding from NRCS to support technical assistance for the LCP/CCPI to do outreach for additional swine producers to participate in the program and to assist the participating producers with completing permitting, designs, and installation for innovative technologies. The Division will also use these funds for evaluating operation of the new systems, for promoting the program to additional potential applicants, and for working with technology providers and the NC Animal and Poultry Waste Management Center to continue development and evaluation of additional alternative waste management technologies.

Table 2: Status of LCP/CCPI Projects funded in 2007-08 (round 1), 2008-09 (round 2), 2009-10 (round 3), and 2010-11 (round 4).

	Project Name	County	LCP Funding Amt.	CCPI Funding Amt.	Total Project Cost (est.)
1	Tyndall Hog & Chicken Farm	Sampson	\$500,000		\$556,000
	Technology: Super-Soils USA, Inc.: on-farm solids separation and liquid treatment system				
	Status: Permit in place; construction estimated 70% complete				
2	Supersoils Centralized Solids Treatment System	Sampson	\$500,000		\$556,000
	Technology: Super-Soils USA, Inc. centralized solids treatment facility (composting)				
	Status: Expansion complete and operational				
3	Rosin Hill Farm	Sampson	\$54,321	\$445,679	\$556,000
	Technology: Super-Soils USA, Inc.: on-farm solids separation and liquid treatment system				
	Status: Permit in place; engineering complete; LCP and CCPI contracts cancelled by cooperating farmer due to concerns about cost and operation.				
4	Loyd-Ray Farm	Yadkin	\$115,000	\$385,000	\$675,525
	Technology: covered anaerobic digester, aeration basin for nitrification and odor control, methane harvesting system, and generator for the production of electricity				
	Status: Implementation complete and operational.				
5	Larry Naylor Farm	Sampson	\$83,000	\$417,000	\$556,000
	Technology: Super-Soils USA, Inc.: on-farm solids separation and liquid treatment system				
	Status: LCP and CCPI contracts cancelled by cooperating farmer due to concerns about cost and operation.				
6	G & R West Farm	Sampson	\$122,771	\$377,229	\$556,000
	Technology: Super-Soils USA, Inc.: on-farm solids separation and liquid treatment system				
	Status: LCP and CCPI contracts cancelled by cooperating farmer due to concerns about cost and operation.				
7	C.B. Barefoot Farm	Sampson	\$112,354	\$387,646	\$781,000
	Technology: Super-Soils USA, Inc.: on-farm solids separation and liquid treatment system				
	Status: LCP and CCPI contracts cancelled by cooperating farmer due to concerns about cost and operation.				
8	Douglas Jernigan Farm	Wayne	\$105,000		\$105,000
	Technology: Super-Soils USA, Inc.: on-farm solids separation and liquid treatment system. LCP funding used to connect 2 <sup>nd</sup> farm operated by Mr. Jernigan to another farm where Supersoils system is already installed.				
	Status: Contract cancelled by cooperating farmer due to change in plans. Farmer elected to shut down 2 <sup>nd</sup> operation and consolidate on site where Supersoils system is already installed.				
Totals			\$1,592,446	\$2,0125,554	\$4,341,525