

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 grants of up to ninety percent of the average cost of each system and a maximum of \$500,000 per year to install the selected technology. 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 the following members:

- Mary Combs, State Conservationist, USDA-Natural Resources Conservation Service (NRCS)
- Molly Diggins, State Director, N.C. Sierra Club
- Lamont Futrell, President, Frontline Farmers; Swine Producer

- Dewitt Hardee, Environmental Program Manager, N.C. Dept. of Agriculture and Consumer Services
- Heather Jacobs, Riverkeeper, Tar-Pamlico River Foundation
- Deborah Johnson, Chief Executive Officer, N.C. Council
- Dr. Joe Rudek, senior Scientist, Environmental Defense Fund
- Coleen Sullins, Director, Division of Water Quality/NCDENR
- Dr. Mike Williams, Director, Animal Poultry Waste Management Center, N.C. State University

LCP IMPLEMENTATION

On February 1, 2008 the Division of Soil and Water announced that it was accepting applications from swine farmers seeking financial assistance to install innovative waste management technologies. Round 1 applications were accepted through March 17th. A total of 7 applications were received during Round 1. After evaluation of the applications by a Technical Sub-Committee of the LCP Advisory Group, 3 projects were identified as meeting the performance standards specified in Section 1.(a) of S.L. 2007-523. On May 27, 2008, the NC Soil and Water Conservation Commission approved these projects for funding. Two of the projects were for installation of the on-farm solids separation and liquid treatment systems developed by Super-Soils USA, Inc. The third approved project is for expansion of the existing SuperSoils Composting facility. The SuperSoils solid separation, solids composting and liquid treatment system was specifically identified in the Phase 3 report of the NC Poultry and Animal Waste Management Center as meeting the performance standards specified in the Smithfield Agreement. All three projects are located in Sampson County. On October 3rd, one of the applicants declined to sign the Agriculture Cost-Share Agreement. The producer indicated 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.

CIG and CCPI FUNDING OPPORTUNITIES

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.

On March 18 2009, the Division submitted an application for a USDA-Natural Resources Conservation Service Conservation Innovation Grant (CIG). The application would have provided a grant of \$632,000 directly to the Division of Soil and Water Conservation to fund up to two additional LCP projects. Although the CIG application was not approved for funding, it did provide an opportunity to collaborate with our federal partners at NRCS on issues related to the LCP. As a result, the Division subsequently submitted a proposal to NRCS to enter into a Cooperative Conservation Partnership Initiative (CCPI) agreement with its USDA-NRCS partners in North Carolina.

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 hog lagoons to more environmentally friendly and innovative waste management systems. The CCPI agreement established three priority levels for producer applications.

Level 1 (Highest) would be for applications seeking funding for projects that would install innovative waste treatment technology that would meet the Swine Waste Management System Performance Standards as specified in 15A NCAC 02T.1307. Level 1 applications would be prioritized using the same funding matrix previously established for the LCP.

Level 2 priority would be for applicants seeking funding to close existing anaerobic lagoons. North Carolina has approximately 4,000 active anaerobic lagoons on 2,200 swine farms. In addition, North Carolina has approximately 1,000 inactive lagoons that need to be properly closed. Level 2 funding applications would be prioritized as follows:

- 1) Lagoons serving active facilities at the time of application;
- 2) Lagoons located in the 100 year floodplain;
- 3) All other anaerobic lagoons that have not been properly closed.

Level 3 would be for producers seeking to install lagoon covers and/or digesters and/or other waste management technologies to capture methane and produce renewable energy or otherwise produce renewable energy from a swine farm or for activities that would be employed for the capture of methane or avoidance of methane production.

In accordance with the terms of the agreement, the USDA-NRCS will direct more than \$1.1 million to projects that meet the priorities described above. Funding comes from the Natural Resources Conservation Service's Environmental Quality Incentives Program (EQIP).

On June 15, 2009 the Department of Environment and Natural Resources published a news release announcing the opportunity to receive funding through NRCS for LCP qualifying technologies and other priority projects described above. Interested producers were required to apply for the designated federal initiative funds by the application deadline of June 26.

A total of twelve farms applied for Level 1 funding to install LCP technology, nine producers applied for Level 2 funds to close inactive lagoons and six farms applied for Level 3 funds to install technology to utilize swine waste to produce renewable energy or reduce greenhouse gas emissions.

After evaluation of the applications by a Technical Sub-Committee of the LCP Advisory Group, two projects were approved for funding through the CCPI. One of the projects was for installation of an additional on-farm solids separation and liquid treatment system developed by Super-Soils USA, Inc. The second project is comprised of a covered anaerobic digester; an aeration basin for nitrification and odor control; a methane harvesting system and a generator for the production of electricity.

The producer proposing to install the on-farm Super-Soils system entered into an EQIP contract with USDA-NRCS for \$445,679. The EQIP contract amount for the anaerobic digester/aeration basin waste treatment system was \$385,000. On August 14 2009, the NC Soil and Water Conservation Commission approved a supplemental allocation of \$165,000 in order to provide the maximum LCP grant amount of \$500,000 to each applicant.

The remaining CCPI funds were encumbered to contracts to close lagoons on nine farms in accordance with Level 2 priorities specified in the original proposal. There were no remaining funds available for Level 3 priority projects.

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 Initial Allocation	\$2,000,000.00
Round 1 LCP Grants (2 projects):	(\$1,000,000.00)
CCPI Supplemental Allocation (2 projects):	(\$165,000.00)
DENR Emergency Reversion:	(\$400,000.00)
Miscellaneous Operating Expenses:	(\$2,952.84)

Unencumbered LCP Account Funds	\$432,017.46

It is anticipated that remaining LCP account funds will be used to provide match for future CCPI or other federally funded initiatives.

NEXT STEPS

The Division continues to work with the cooperating producers, NC Division of Water Quality (DWQ), USDA-NRCS, the NC Poultry and Animal Waste Management Center and other interested parties to implement these projects. All permits have been obtained for construction of Round 1 technologies. Round 2 CCPI funded cooperators are in the process of completing the permit packages for submission to DWQ. It is anticipated that construction for all four of these projects will be completed by December of 2010.