

**North Carolina Foundation  
for  
Soil & Water Conservation, Inc.**

**-- Final Progress Report --  
*2002 Environmental  
Enhancement Grants  
Program***

***A Cooperative Project of  
The Foundation and the NC  
Attorney General's Office  
Funded by the Smithfield  
Foods Agreement  
Environmental  
Enhancement Fund***



**Final Report**  
**To the Attorney General of North Carolina**  
**2002 Environmental Enhancement Grants Program**

### **Funds Expended on Approved Projects**

With all projects completed, \$466,668 of Smithfield Foods Agreement funds were used for direct on-the-ground installation of the 21 approved projects. Another \$321,505 was provided by farmers and public cost sharing programs creating a total of \$788,173 applied directly to installation of the approved projects. Districts and the Natural Resources Conservation Service provided in-kind technical services valued at \$157,635 for planning and installing the projects on the ground.

The Foundation incurred \$28,505.68 direct expenses in implementing these projects through conservation districts. A remaining balance of \$9,832, before final reimbursement for Foundation professional time and allocation costs, exists from the NCAG originally approved \$500,000 grant to the Foundation. After payment of the final \$5,005.68 for professional time and allocation costs, the Foundation respectfully requests the remaining funds from this grant, be transferred to the Foundation's 2004 grant received from the NCAG on December 2, 2004 to be applied to projects approved in the "2004 funding cycle". The justification for the existence of this remaining balance and for the request to transfer to the Foundation's new project is that in approving district's lagoon closure projects, it was not probable that, collectively, all project's costs would total exactly the gross amount of the NCAG grant. The Foundation had no authority to obligate funds in excess of its approved grant.

In final accounting, the NCAG's \$500,000 Smithfield Foods Agreement grant to the Foundation produced a project with a total value of \$986,000 resulting in the leveraging of \$486,000 cash and in-kind contributions by farmers, Districts, and supporting agencies to the NCAG/Smithfield Foods funds.

### **Accomplishments and Outcomes from the Project**

In closing the 30 inactive lagoons, 27,674,508 gallons of effluent were removed and applied to nearby fields in compliance with lagoon closure plans and technical standards contained in the USDA-NRCS Field Office Technical Guides. The effluent from these lagoons and soil samples from fields receiving the waste material were analyzed by the NC Department of Agriculture & Consumer Service's laboratories in Raleigh providing the proper prescription for land application of all material removed from the lagoon sites. In total, 62,790 pounds of nitrogen, 246,200 pounds of phosphorus, and 69,077 pounds of potash from these 30 sites was properly land applied to growing crops during the closure process. Several outcomes are realized because of the project. They include:

- The risk of polluting nearby streams has been eliminated at these 30 sites.
- Public resources are no longer needed to monitor these sites.
- Almost 380,000 pounds of nutrients have been put to work growing vegetation to protect land against soil loss from erosion and sediment deposition into streams and other water bodies resulting in improved water quality where these projects were installed.
- Economic stability of farming operations at each of the 30 sites has been enhanced by the use of onsite plant nutrients in lieu of purchased materials brought in from commercial sources.

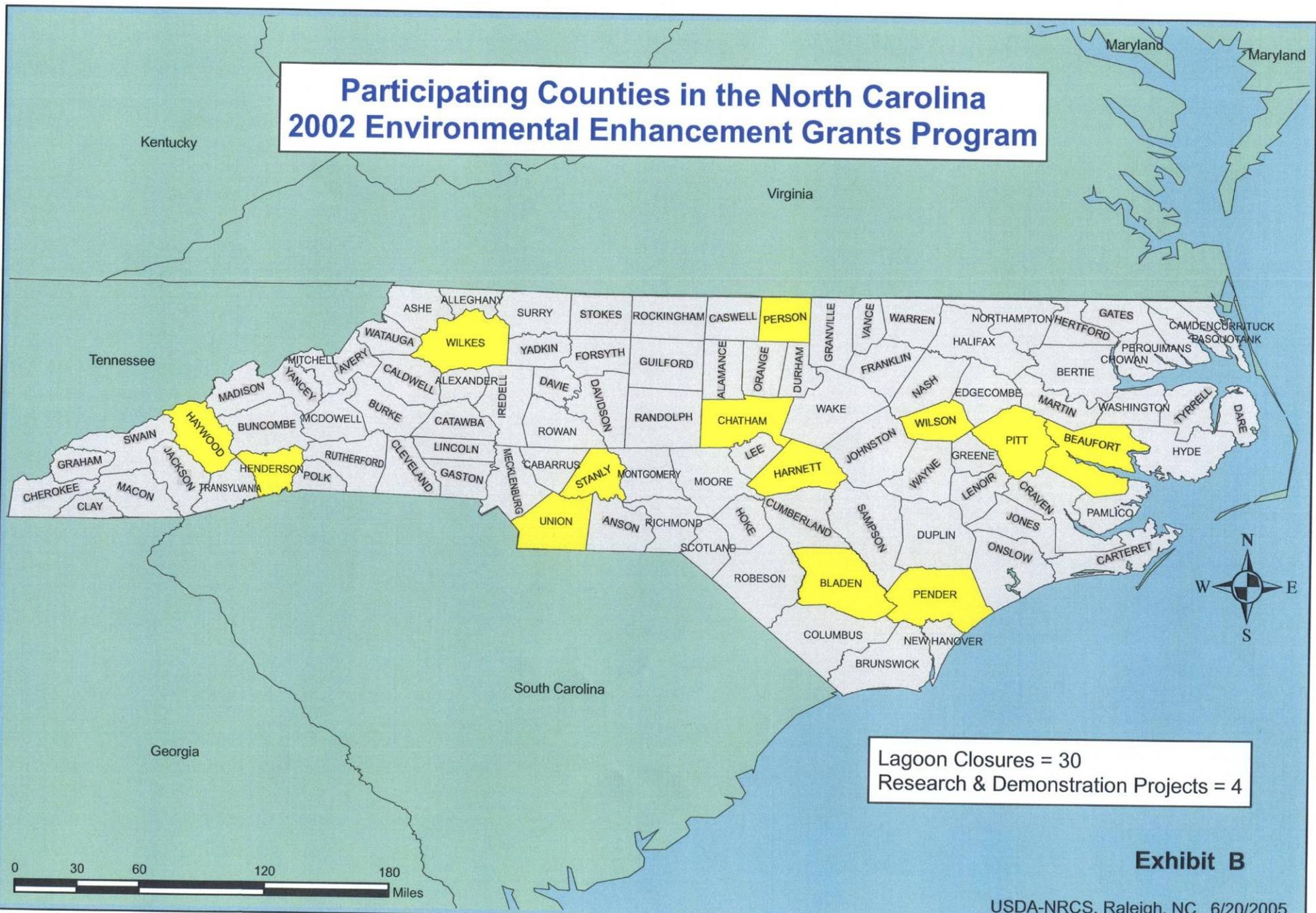
**Pictures of Project Implementation**

According to the NRCS Field Office Technical Guide (FOTG) conservation practice standard # 360, Closure of Waste Impoundments, Districts and farmers had three options for closure of inactive lagoons. The eligible options provided for closure of lagoons after removal of all waste materials from the site by; (a) installing a properly designed principle spillway and leaving the site a freshwater pond, (b) breaching the levee rendering the structure incapable of holding liquids, or (c) complete removal of the embankment if advised to return the site to other useful purposes.

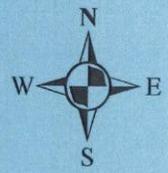
The collection of photographs enclosed as Exhibit E show examples of inactive lagoons closed with typical actions taken to achieve proper closure according to NRCS' FOTG including application of effluent from the structures on nearby fields.

# # #

# Participating Counties in the North Carolina 2002 Environmental Enhancement Grants Program



Lagoon Closures = 30  
 Research & Demonstration Projects = 4



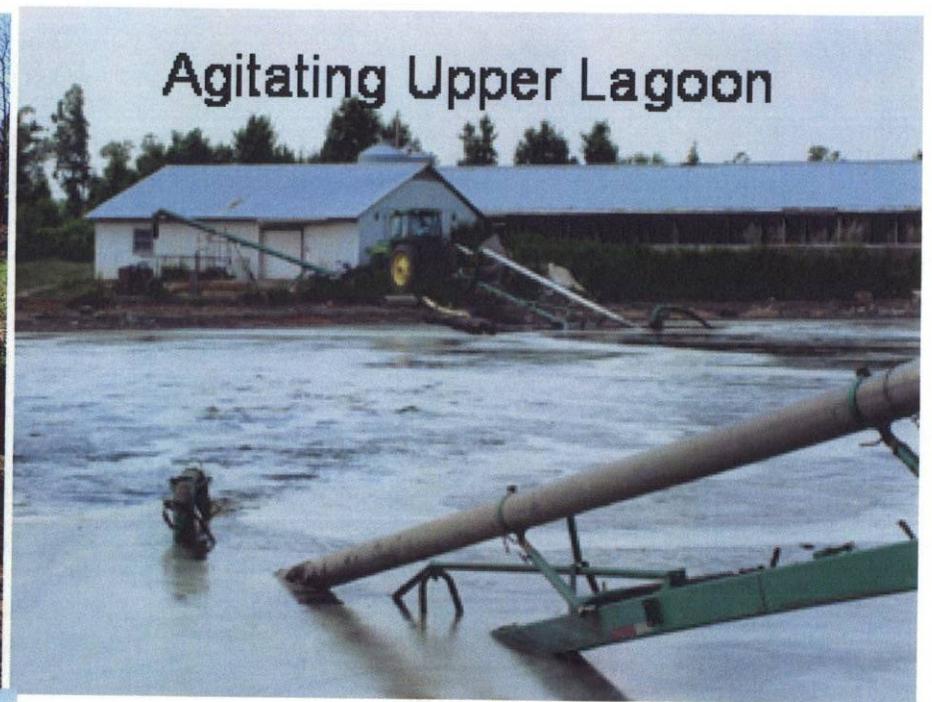
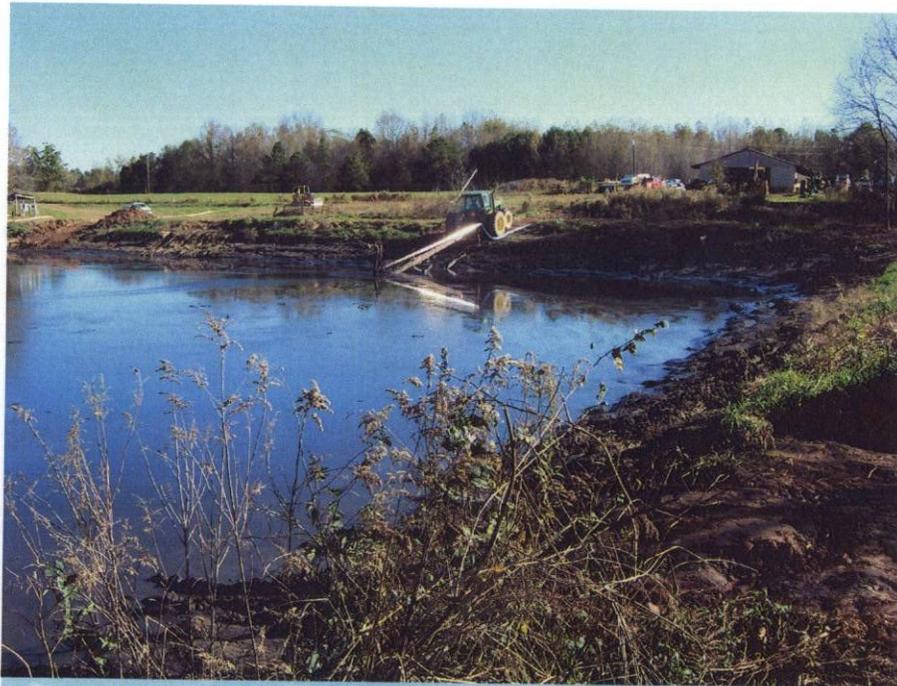
**Exhibit B**



## Typical Inactive Lagoons

EXHIBIT E

1 of 5



Agitating Upper Lagoon



## Agitation of Sludge in Preparation for Pumping

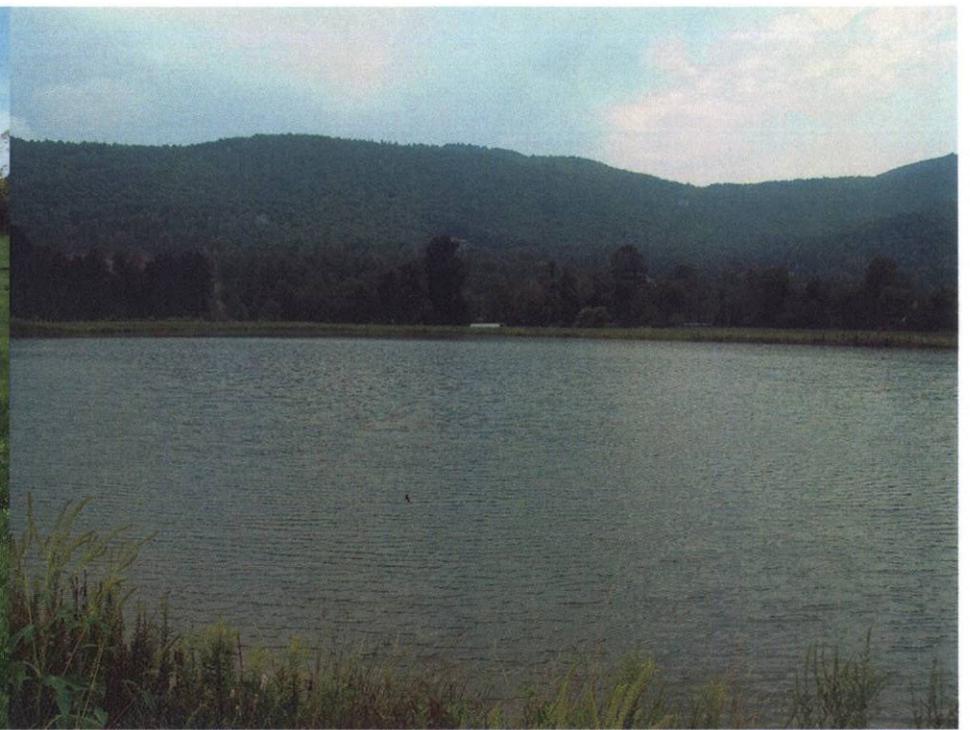


# Land Application of Lagoon Effluent

Sheet 3 of 5



## Cleansing of Lagoon



## Final Disposition of Lagoon

Complete Eradication  
Conversion to Pond  
Breaching of Levee

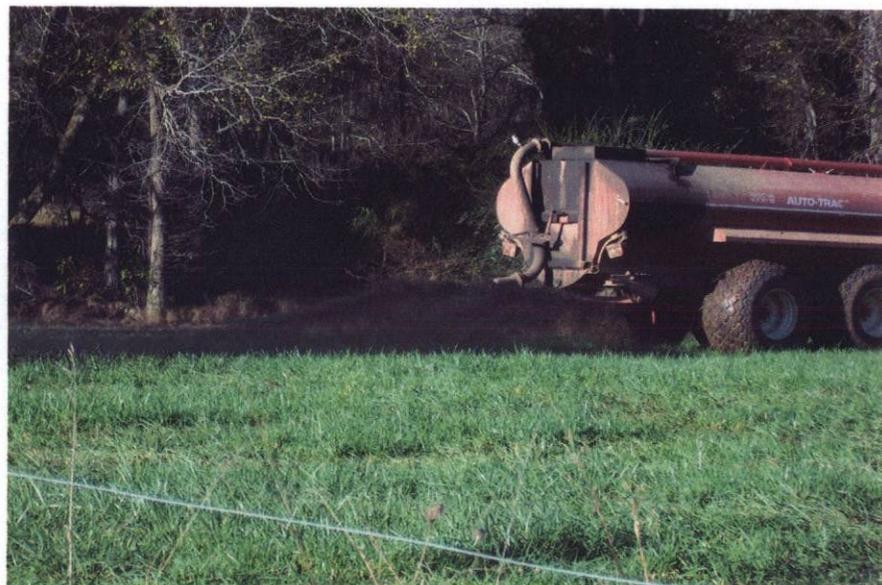
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## Agitation Of Sludge In Preparation for Pumping



# North Carolina Foundation For Soil & Water Conservation

## Land Application Of Lagoon Effluent



# North Carolina Foundation For Soil & Water Conservation

## Cleansing Of Lagoon



# North Carolina Foundation For Soil & Water Conservation

## Final Disposition Of Lagoon

