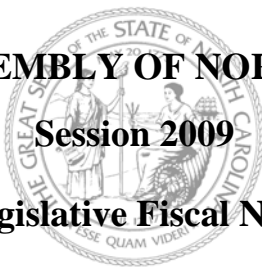


GENERAL ASSEMBLY OF NORTH CAROLINA



Session 2009

Legislative Fiscal Note

BILL NUMBER: House Bill 1170 (First Edition)

SHORT TITLE: Study Land Application of Septage and Sludge.

SPONSOR(S): Representative Blackwood

FISCAL IMPACT					
	Yes (X)	No ()	No Estimate Available ()		
	<u>FY 2009-10</u>	<u>FY 2010-11</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>
REVENUES					
Department of Agriculture & Consumer Services	\$0	\$0	\$0	\$0	\$0
EXPENDITURES					
Department of Agriculture & Consumer Services	\$185,660	\$0	\$0	\$0	\$0
POSITIONS (cumulative):					
Department of Agriculture & Consumer Services	4	0	0	0	0
PRINCIPAL DEPARTMENT(S) & PROGRAM(S) AFFECTED:					
Department of Agriculture & Consumer Services					
EFFECTIVE DATE: July 1, 2009					

BILL SUMMARY:

H.B. 1170 directs the Department of Agriculture and Consumer Services (DACS) to study the extent to which septage and sludge are being applied to land in North Carolina, whether the current regulation of the land application of septage, sludge, and animal waste adequately protects human health and the environment, and whether changes are needed to the regulatory process to ensure the combined effect of animal waste and municipal waste are not detrimental to people, domestic animals, wildlife, or the soil and water of the State. In the study, DACS is required to consider expanding existing programs or implementing new programs to ensure that septage and sludge are disposed of safely. The bill also requires DACS to determine:

- Where septage and sludge are being spread;
- The quantity of sludge and septage being spread; and
- The source of the sludge and septage being spread.

This information must be posted on NC OneMap and shared with the County Commissioners of each county. The report must be presented to the General Assembly by May 1, 2010.

ASSUMPTIONS AND METHODOLOGY:

This fiscal note estimates the cost to DACS of conducting a one-time study of the application of septage and sludge; it does not estimate the cost of establishing and operating a regulatory program to oversee the application of septage and sludge. The Department of Environment and Natural Resources (DENR) currently has a permitting framework in place for regulating the land application of sludge and septage. The Division of Water Quality (DWQ) regulates sludge while the Division Waste Management (DWM) regulates septage. DACS is currently not involved in the regulation of the application of either sludge or septage.

The permit records kept by DWQ and DWM have information on the maximum amount of sludge or septage allowed to be spread; the allowable sources of these substances; and the location of the application of the sludge or septage. This permit data is public record. Both DWQ and DWM require that each permittee submit an annual report listing the amount of septage or sludge applied by source and the amount that went onto each field or, in the case of septage, to a waste water treatment facility.

During the permitting process, the permittee is required to perform testing prior to receiving a permit. For sludge, the permittee must perform a variety of tests to ensure the quality of the sludge and the suitability of the soils to receive sludge. In addition, the sludge is tested periodically to evaluate the concentration of metals, pathogens, and other parameters in order to demonstrate compliance with state and federal requirements. The soil is tested annually following the start of application to evaluate soil conditions and to help determine the appropriate level of sludge that can be applied. DWM requires annual evaluations of the soil at application sites but does not test the septage itself unless it is of industrial origin.

Fields receiving Class “A” sludge are deemed permitted under 15A NCAC 02T.1103 (3) and (4) and are, therefore, not listed in the permit information or tracked by DWQ. Class “A” sludge meets a more stringent requirement for metals and pathogen concentrations and has been deemed acceptable by the State and the US Environmental Protection Agency for distribution to the general public for uses similar to that of commercial compost or fertilizer.

In providing information on the fiscal impact of this bill, DACS assumed that permit data from DENR would be available for their use and that no additional lab testing would be required (See Technical Note #2 on laboratory testing capabilities).

DACS Fiscal Impact Estimate

DACS maintains that completing this study will require five additional personnel – two administrative positions, two agronomists, and one GIS technician. The administrative assistants are needed to review permit data, process survey data, and gather regulatory practice information from other states. The agronomists would assess the current regulatory process to determine whether it protects public health. Moreover, the agronomists would gather and review information on potential regulatory schemes and determine fees that would be needed to support a regulatory program within the Pesticides division. They would also, if needed, visit sludge and septage

application sites to collect samples, gather data, and conduct surveys. Finally, the agronomists would be responsible for coordinating with the University System to identify cost-effective methods and alternatives to land application. The GIS technician would complete all GIS map related duties as well as prepare the permit data for input into the GIS system.

These five positions would be filled on a temporary contract basis and would not receive State benefits. DACS assumes that these individuals would be employed for approximately nine months, from September of 2009 through May of 2010, when the study must be completed. Because of the need to attract and hire this staff quickly, salary mid-points instead of minimums have been used in this analysis. DACS expects personnel expenditures of \$179,711.

According to DACS, they would also need new funds to cover the operating expenses associated with these positions; each position would require travel costs, equipment such as a computer and office furniture, and general office supplies. DACS already has the technology needed to handle the mapping aspects of this study. Estimated operating costs are \$60,500.

DACS Estimated Total Expenditures, 2009-2010		
Personnel Costs		
Position	Pay Grade	Salary (9 months)
1 GIS Analyst	76	\$ 48,584
2 Administrative Assistant I	63	\$ 56,127
2 Agronomist I	70	\$ 75,000
<i>Total Personnel</i>		<i>\$ 179,711</i>
Operating Costs		
Item	Number	Cost
Computers	5	\$ 5,000
Printer	1	\$ 500
Travel	--	\$ 45,000
Office Supplies	--	\$ 10,000
<i>Total Operating</i>		<i>\$ 60,500</i>
Total Expenditures		\$ 240,211

Undertaking this study should have no revenue impact on DACS.

Fiscal Research Fiscal Impact Estimate

The Fiscal Research Division (FRD) believes that DACS' estimated needs for personnel and operating expenses are over-stated. Given the availability of DENR's site-specific permit information, there should not be a need for \$45,000 in travel expense. The responsibilities outlined for the contract administrative assistants and GIS technician indicate that these positions should not have a need to travel. After adjusting for typical lodging and meal costs for the agronomists (\$4,000 each), there is \$37,000 remaining to cover mileage. At the IRS mileage reimbursement rate (\$0.55 per mile), which is the highest reimbursement rate used by the State, these agronomists would have funds to travel over 67,270 miles – 33,635 miles each – in nine months.¹ In comparison, a new position request typically receives a \$1,000 in ground

¹ According to the State budget manual, the IRS' business standard mileage rate (55 cents per mile effective January 1, 2009) will be paid when a State employee uses their personal vehicles for state business when the round trip does not

transportation, enough for 1,818 miles. At the other extreme, in DACS' Animal Welfare Section (AWS), the five inspectors who conducted over 640 inspections, monitoring *all* pet shops, kennels, shelters, and other facilities across the state, traveled a combined 120,000 miles – 24,000 miles each – in 2008. DACS' travel assumption for H.B. 1170 provides funds for the agronomist to travel nearly double the miles traveled by the AWS inspectors (on an annualized basis). Therefore, FRD believes that mileage estimate for the agronomist is too high. FRD's estimate provided in the table below assumes that travel funds are needed for 12,000 miles for each agronomist and that double standard lodging and meal costs will be required.

DACS estimates that the study will require \$10,000 in office supplies for five employees for nine months; this is over \$222 in office supplies per employee per month. When new positions are requested, annual office supplies of approximately \$1,150 are more typical; this includes start-up and on-going office supplies, postage, phone service, and PC maintenance. For this fiscal note, FRD has assumed a pro-rated supply cost of \$863 per person. In addition, DACS has included funds for new computers for each contracted position. While \$5,500 for new computers can be justified based on standard position costs, FRD believes that purchasing five brand new computers for contract employees is unnecessary. With over 98 vacant positions as of March 2009, DAC should have five computers available for use by the personnel contracted for this study.

Lastly, FRD accepts that the details of the study methodology are unknown and that DACS will need additional staff to complete the study. Nevertheless, FRD believes that DACS can complete this study with fewer positions: two agronomists, one administrative assistant, and one GIS technician. These four positions would be contracted with for nine months and would not receive State benefits. Under the FRD assumptions, total personnel expenditures would be \$151,647, a reduction of \$28,064.

FRD Estimated Total Expenditures, 2009-2010

<i>Personnel Costs</i>		
Position	Pay Grade	Salary (9 months)
1 GIS Analyst	76	\$ 48,584
1 Administrative Assistant I	63	\$ 28,064
2 Agronomist I	70	\$ 75,000
<i>Total Personnel</i>		<i>\$ 151,647</i>
<i>Operating Costs</i>		
Item	Number	Cost
Computers	0	\$ 0
Printer	1	\$ 500
Travel	--	\$ 29,200
Office Supplies	--	\$ 4,313
<i>Total Operating</i>		<i>\$ 33,293</i>
<i>Total Expenditures</i>		<i>\$ 185,660</i>

Undertaking should have no revenue impact on DACS. this study

exceed 100 miles or when a state-owned vehicle is not available. However, if a state employee chooses to use a personal vehicle when a state-owned vehicle is available, all departments and agencies will reimburse the employee at the motor fleet rate for mileage of 33 cents per mile.

SOURCES OF DATA:

Department of Agriculture and Consumer Resources
Department of Environment and Natural Resources

TECHNICAL CONSIDERATIONS:

- 1) DENR already regulates the application of septage and sludge through a permitting process within the divisions of Waste Management and Water Quality.

- 2) Laboratories within DACS' Agronomic Division are certified by DWQ to test soil and animal waste for waste management systems that are permitted under Article 21 of the NC General Statutes (G.S. 143-215.10.C(e)(6)). However, this certification is only for the analysis of copper, manganese, zinc, total Kjeldahl nitrogen, soil pH, and total phosphorus for animal waste management systems. The purpose of laboratory analyses is to provide growers reliable information to make responsible decisions about the use of farm wastes as fertilizer materials for crop production. DACS does not have laboratory certification for determining the chemical content or presence of pathogens in septage and sewage sludge. Furthermore, methods used in DACS' laboratory analyses are not EPA-approved methods for measuring concentrations of regulated heavy metals or for determining loading rates in soil applications. Thus, if testing for chemicals or pathogens was required, DACS does not feel that it would be able to complete this study without additional laboratory resources.

FISCAL RESEARCH DIVISION: (919) 733-4910

PREPARED BY: Lanier McRee

APPROVED BY: Marilyn Chism, Director
Fiscal Research Division

DATE: May 4, 2009



Signed Copy Located in the NCGA Principal Clerk's Offices