Economic Analysis for Proposed Rule NCAC Sections 03 and 09, State Treasurer Fee Increase

Rule Citation Number: 20 NCAC 03 .0112 and 20 NCAC 09 .0602

Agency: Department of State Treasurer

Agency Contact: Andrew Holton

Department of State Treasurer

325 N. Salisbury St. Raleigh, NC 27603 (919) 807-2368

andrew.holton@nctreasurer.com

Nature of Impact: State Impact – YES

Local Impact - YES

Substantial Economic Impact - NO

Federal Impact – NO

Small Business Impact - NO

Authorizing Statute: G.S. 159-6 (see Appendix 1)

Summary of Proposed Rule

The Department of State Treasurer seeks to raise the fees charged for services rendered in issuing and administering public debt. The proposed fee increase is expected to generate approximately \$1,100,000 in additional revenue, which will be used to pay for technology upgrades in the department. The Department seeks the fee increase only after having tried to secure funding through the appropriation process for the last several years.

IMPACT ANALYSIS

Through this rule amendment (see proposed changes in Appendix 2), the Department of State Treasurer ("Department") seeks to raise the fees charged by the Local Government Commission ("LGC") and the North Carolina Capital Facilities Finance Agency ("NCCFFA")(described in the Administrative Code as the Educational Facilities Finance Agency) for services rendered in issuing and administering public debt. The staff of the Department's State and Local Government Finance Division ("Division") serves as the staff to the LGC and the NCCFFA. As such, Division staff provides analytical and administrative services to the local governments and authorized nonprofits that issue debt through the state. The fees charged by the NCCFFA are paid by the nonprofits issuing debt. Local governments issuing debt pay 90 to 95 percent of the LGC fees, with nonprofits paying the additional 5 to 10 percent of LGC fees.

The proposed fee increase would be used to pay for technology upgrades in the Division. In 2007, the Division conducted a technology assessment and concluded that two major technology upgrades were needed: a software system for debt management and a scanning system for incoming financial documents. Consultants estimated that, in undiscounted terms, over a period of five years the debt management system would cost \$4,448,899 and produce \$5,576,627 in direct quantifiable benefits to the Division. The integrated document management systems would cost approximately \$1,500,000 and produce \$2,100,000 in direct benefits, undiscounted over a five-year period. By implementing these two systems, the Division could begin to migrate away from a paper-based operating process and towards a digital process. The assessment's cost benefit analysis determined that the updates will greatly improve the internal efficiency of the Division as well as its external work with local governments and local government agents. Specifically, the upgrades will allow for quicker, more efficient communication between the Division and governments. See Appendices 3 and 4 for a overview of the cost benefit analyses for the two upgrades.

The State Treasurer has sought funding for these necessary upgrades and has included line items for them in the last three Department budgets. However, due to the statewide budget shortfalls, these upgrades have not been included in the Department's final budget.

COST ASSUMPTIONS

The proposed fee represents an increase of 150% for fees charged for debt issued by the LGC and an increase of 100% for fees charged by the NCCFFA. Table 1 presents the summary of the direct economic impact that would result from these fee increases. The economic impact projection is based on the average annual fee total collected by the Division, \$810,000, from 2005 to 2009. On average, between 2006 and 2010 the LGC and NCCFFA annual fees collected were \$547,100 and \$286,000, respectively (see Table 2). Accordingly, based on the fact that LGC fees would increase 150% and NCCFFA fees 100%, we project the *increase* in LGC fees to be \$821,000 and the *increase* to NCCFFA fees to be \$286,000. Thus, we project that the total amount of the fee increase will be \$1,107,000 per year (see Table 1 below). Annually, local governments are expected to incur about \$761,000 in extra fees (about 93% of LGC fee increase) as a result of the rule change. Nonprofits would incur approximately \$346,000 per year in increased fees (the NCCFFA fee increase plus about 7% of the LGC fee increase).

TABLE 1. SUMMARY OF DIRECT ECONOMIC IMPACT (i.e., PROJECTED TOTAL OF THE INCREASE)¹

	FY 2010-11	FY 2011-12	FY 2012-13	FY 2014-15	FY 2015-16
COSTS					
To NCCFFA (nonprofits)	\$286,000	\$286,000	\$286,000	\$286,000	\$286,000
To local governments & nonprofits issuing debt:	\$821,000	\$821,000	\$821,000	\$821,000	\$821,000
- Local gov.	\$761,000	\$761,000	\$761,000	\$761,000	\$761,000
- Nonprofits ²	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000
Total Cost of Increase	\$1,107,000	\$1,107,000	\$1,107,000	\$1,107,000	\$1,107,000
NPV of Costs ³	\$4,538,919				
BENEFITS					
To the state	\$1,107,000	\$1,107,000	\$1,107,000	\$1,107,000	\$1,107,000
NPV of Quantifiable Benefits ³	\$4,538,919				

¹ This table does not include the indirect costs and benefits that would result from the Division implementing the technological upgrades.

TABLE 2. FEES COLLECTED BY THE DIVISION

	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2006-10 Average
Fees collected by LGC	\$560,334	\$541,501	\$504,001	\$521,633	\$608,050	\$547,104
Fees collected by NCCFFA	\$150,716	\$493,500	\$305,392	\$259,556	\$220,238	285,880
Total collected fees by the Division	\$711,049	\$1,035,000	\$809,393	\$781,189	\$828,288	\$832,984
Total No. of Deals for which fees were assessed	285	223	210	128	188	207

² Based on the number of nonprofit deals in 2009-10.

³ NPV is the Net Present Value and it is computed using a 7% discount rate over the 5 years presented in the table.

UNCERTAINTIES

It is impossible to accurately project the number of public finance details passing through the LGC and the NCCFA. While in the past, a annual increase of 10% in activity was normal, this is no longer the case given the current economic situation. The public finance markets are highly volatile and the long term public finance impacts of federal government stimulus efforts are unknown. In the short term, we do not anticipate a steep drop in the amount of deals for which fees are charge. The federal government has made significant efforts to stimulate the bond markets and, on the whole, N.C. local governments are in better health than those in other states. On the other hand, local governments continue to be in tight fiscal times, and the Division does not project that the number of deals will increase to 2007 levels in the near future.

The increase in the fees is not likely to decrease the amount deals. The rate advantage local governments and nonprofits enjoy in the tax exempt debt market is still significant enough to justify local governments and non-profits to have the Division issue and administer their public debt.

We do not anticipate that the number of fee generating deals from either the LGC or the NCCFFA will increase or decrease by more than 25% over the next five years. A 25% increase in number of deals would generate a revenue increase of approximately \$1,384,000, while a 25% decrease in deals would generate approximately \$830,000 in new fees, as shown in Table 3.

TABLE 3. SENSITIVITY PROJECTIONS

	Projected cost increase with 25% more deals than projected	Projected cost decrease with 25% fewer deals than projected	
Increases to NCCFFA fees	\$357,500	\$214,500	
Increases to LGC fees	\$1,026,250	\$615,750	
Total cost of increases	\$1,383,750	\$830,250	

APPENDIX 1: AUTHORIZATION LANGUAGE:

§ 159-6. Fees of the Commission.

- (a) The Commission may charge and collect fees for services rendered and for all expenses incurred by the Commission in connection with approving or denying an application for an issue of other than general obligation bonds or notes, participating in the sale, award or delivery of such issue or carrying out any other of its powers and duties with respect to such issue or the issuer thereof, pursuant to the laws of the State of North Carolina.
- (b) The Commission shall establish rules and regulations concerning the setting and collection of such fees. In establishing the amount of or method of determining such fees, the Commission shall take into account, among other things, the scope of its statutory responsibilities and the nature and extent of its services for such issue or issuer or class thereof.
- (c) Such fees collected by the Commission shall be incorporated into the budget of the State Treasurer and shall be expended for costs incurred by the Commission in carrying out its statutory responsibilities in the issuance of revenue bonds.
- (d) Apart from the above fees, the Commission is authorized to receive reimbursement for all expenses incurred in the sale or issuance of general obligation bonds and notes by assessing and collecting fees.
- (e) In addition to any other fees authorized by this section, the Commission may charge and collect fees for services rendered and expenses incurred in reviewing and processing petitions of counties or cities concerning use of local sales and use tax revenue in accordance with G.S. 105-487(c). (1981 (Reg. Sess., 1982), c. 1175; 1983, c. 908, s. 2.)

APPENDIX 2: PROPOSED FEE CHANGES:

20 NCAC 03 .0112 FEES

(a) <u>Up to the amount listed below, t</u>The following fees shall be charged for services rendered or to be rendered for each category of bonds and notes set forth:

(1)	Bonds sold pursuant to G.S. 159D, Article 2	\$5,000.00	\$12,500.00
(2)	Bonds sold pursuant to G.S. 131A	\$3,500.00	\$8,750.00
(3)	Bonds sold pursuant to G.S. 159B	\$5,000.00	\$12,500.00
(4)	Bonds sold pursuant to G.S. 159C	\$2,500.00	\$6,125.00
	(Except for bonds for industrial development or pollu	ition control for which	
	the fee shall be \$1,000.00 \$2,500.00.)		

(5) Bonds sold for Industrial Facilities and Pollution Control projects, pursuant to G.S. 159D, Article 1 (per participant) \$1,000.00 \$2,500.00

(6) All other bonds sold pursuant to G.S. 159D \$1,000.00 \$2,500.00 (7) Bonds sold pursuant to G.S. 159I \$5,000.00 \$12,500.00

(8) All notes issued in anticipation of issuance of a bond for which a fee is set forth herein \$500.00 \$1,250.00

(9) Revenue bonds sold pursuant to G.S. 159, Article 5 and all other approvals and issues of debt receiving Local Government Commission approval, other than general obligation bonds. \$5,000.00 \$12,500.00

- (b) In addition to the fees set forth in this Rule, all travel and subsistence and all other expenses, including telephone and postage, incurred shall be for the account of the issuer. When paid by the state, they shall be billed to the issuer.
- (c) In addition to expenses pursuant to Paragraph (b) of this Rule, the following fees shall be charged for the services set forth herein:

(1)	Approvals to counties pursuant to G.S. 105-487(c)	\$250.00	<u>\$625.00</u>
(2)	Approvals to municipalities pursuant to G.S. 105-487(c)	\$250.00	\$625.00
(3)	Approvals of installment purchase contracts under G.S. 160A-	20 where	
	no public offering is proposed	\$500.00	\$1,250.00
(4)	Approvals of installment purchase contracts under G.S. 160A-	20 where	

a public offering, including but not limited to certificates of participation, is proposed \$5,000.00 \$12,500.00

History Note: Authority G.S. 159-3(f); 159-6;

Eff. August 1, 1983;

Amended Eff. January 1, 2004; November 1, 1990; August 1, 1987; November 1, 1983.

20 NCAC 09 .0602 FEES AND EXPENSES

- (a) A non-refundable application fee shall be required of .05 percent.1 percent (five hundredths one tenth of one percent) of the par amount of the issue with a minimum fee of two thousand dollars (\$2,000), plus any and all fees charged by the Local Government Commission.
- (b) An annual fee of five hundred one thousand dollars (\$500 \$1,000) per year shall be required.
- (c) In addition to the fee set forth in this Rule, all travel and subsistence incurred, and all material amounts of other expenses, e.g. telephone and postage when paid by the state, shall be billed to the institution.
- (d) The agency will not incur extraordinary expenses without prior agreement of the applicant to reimburse the agency for all related costs.

History Note: Filed as a Temporary Adoption Eff. September 30, 1987,

for a Period of 153 Days to Expire on March 1, 1988;

Authority G.S. 159D-39(17);

Eff. March 1, 1988.

APPENDIX 3: COST BENEFIT ANLYSIS FOR DEBT MANAGEMENT SYSTEM

NC Department of State Treasurer S&LGFD

Prepared 4/10/2008

Debt Management System Study
Integrated Debt & Fiscal Management
System Implementation Plan



Cost/Benefit Analysis

1.1 Executive Summary

The State and Local Government Finance Division (S&LGFD) of the Department of State Treasurer in conjunction with the Local Government Commission oversees the financial operations of cities, counties, school systems, charter schools, hospital and airport authorities, and water and sewer districts. The oversight system has two principal cornerstones: (1) control over all debt issuance and (2) budgetary and fiscal oversight powers. North Carolina is the only state legally responsible for the issuance of all local government debt. The S&LGFD directly issues or approves the sale of about 300 debt instruments annually. They also regulate the audit processes, extensively review financial reports, assist troubled communities, and can intervene in cases of mismanagement and take financial control of the entity. For the regulated units, the division requires an independent financial audit in accordance with generally accepted auditing standards.

The DST Information Technology Division and S&LGFD personnel have worked with the project staff to outline the Current IT Environment as it pertains to both Fiscal and Debt Management areas. The current hardware, software and utilities requirements as they pertain to S&LGFD have been described in the System Requirements and Current IT Environment deliverables. DST may want to consider blending the topology of the LOGICs application with the Debt Management application if the integrated version is to be developed in a .Net environment. The Integrated Debt & Fiscal Management System is expected to cost \$4,448,899 over the five-year life cycle and is estimated to produce \$5,576,627 in direct quantifiable benefits and will also produce many unquantifiable such as the ability to recover from a major physical disaster to S&LGFD facilities. Funds have been allocated to cover expenditures related to the S&LGFD-INTEGRATED DEBT & FISCAL MANAGEMENT SYSTEM; and with a projected ROI of 40% over five years, project activities to implement the system should commence.

1.2 Statement of Problem

The S&LGFD of the Department of State Treasurer executes the statutory duties of issuing all local government debt for the state and oversight to ensure units are following Generally Accepted Accounting Principles (GAAP). The State Treasurer's office was granted this authority in 1932 in response to North Carolina's high rate of municipal bond defaults during the Great Depression.

The S&LGFD in conjunction with the Local Government Commission oversees the financial operations of cities, counties, school systems, charter schools, hospital and airport authorities, and water and sewer districts. The oversight system has two principal cornerstones: (1) control over all debt issuance and (2) budgetary and fiscal oversight powers. The S&LGFD executes with two major departments: Debt Management which handles the debt issuance and the Fiscal Management which handles the review of the annual financial statements and the independent auditors. North Carolina is the only state legally responsible for the issuance of all local government debt. The S&LGFD directly issues or approves the sale of about 300 debt instruments annually. The division provides all this support with a staff of only 37 permanent employees.

Currently debt issuance is growing at an annual basis of greater than 10%, and the accounting rules and requirements, in terms of cash management, are becoming more complex, requiring additional review time for unit financial statements. The S&LGFD views the implementation of this system as critical to continue the outstanding support to local government in North Carolina. These operational efficiencies will help to ensure North Carolina's continued leadership position in fiscal oversight and governance. The tangible benefit of this is in interest savings on the debt issued by local government entities. Fitch Investors Service grants North Carolina local units an automatic one-notch upgrade on all debt issued at an AA rating or lower. In FY 2007, North Carolina had outstanding debt rated at AA or lower of \$8.5 billion. With the on-notch (nine "basis" point) savings in the annual debt service, North Carolina local governments realized annual interest payment savings of \$7.8 million.

Implementation Costs

The initial implementation of the Integrated Debt & Fiscal Management System is projected to cost approximately \$3.9 Million. The initial costs include the cleansing of Debt Management and LOGICs data, all software licensing costs, hardware costs, LOGICs Study costs to gather Fiscal and LOGICs Requirements and LOGICs and Debt Management development costs. Finally, there will be infrastructure support and 5 years of ongoing maintenance on the system. A detailed breakdown of implementation costs are presented below.

	Data	Debt		
Capital Expenditure	Conversion	Management	LOGICS	Total
Internal Personnel	\$180,000	\$120,000	\$120,000	\$420,000
External Personnel	\$400,000	\$800,000	\$1,272,000	\$2,472,000
Facilities	\$0	\$68,000	\$68,000	\$136,000
Infrastructure Hardware	\$0	\$115,500	\$0	\$115,500
Infrastructure Software	\$0	\$86,000	\$0	\$86,000
Other	\$116,000	\$249,900	\$304,000	\$669,900
Totals	\$696,000	\$1,439,400	\$1,764,000	\$3,899,400

Subsequent years will result in lower costs for the system as only maintenance costs and internal support costs will be incurred after the implementation. The lifetime of the Integrated Debt & Fiscal Management System is estimated to be five years after full implementation, at which time, the system will require a complete hardware and software refresh and other alternatives may be considered. Cost projections for the duration of the integrated system presented below.

Debt Management System - On-going Operations and Maintenance for 5 Years

Debt Management System Operations and Maintenance	Year 1	Year 2	Year 3	Year 4	Year 5
Internal Personnel	\$0	\$60,000	\$60,000	\$60,000	\$60,000
Facilities	\$15,000	\$0	\$0	\$0	\$0
Infrastructure Hardware	\$0	\$4,000	\$4,333	\$4,666	\$5,000
Infrastructure Software	\$4,000	\$4,150	\$4,300	\$4,450	\$4,600
Totals	\$19,000	\$68,150	\$68,633	\$69,116	\$69,600

LOGICs System - On-going Operations and Maintenance for 5 Years

LOGICS System Operations and Maintenance	Year 1	Year 2	Year 3	Year 4	Year 5
Internal Personnel	\$0	\$60,000	\$60,000	\$60,000	\$60,000
Facilities	\$15,000	\$0	\$0	\$0	\$0
Total	\$15,000	\$60,000	\$60,000	\$60,000	\$60,000

Over the course of five years, the S&LGFD-INTEGRATED DEBT & FISCAL MANAGEMENT SYSTEM is projected to incur a Total Cost of Ownership (TCO) of \$4,690,899. This cost projection includes:

- All software and hardware purchase costs
- Support agreements on software and hardware
- Vendor costs for configuration and implementation services
- Costs associated with design and implementation support by internal personnel
- Internal costs for IT staff for support of the application
- Conducting a LOGICs Study similar to the current project

The TCO reflects costs of \$242,000 associated with producing the requirement study for this project.

1.3 Potential Benefits

Benefits of the integrated system were calculated using imputed benefits derived from efficiency improvements in both the Fiscal Management and Debt Management sections operations. The new LOGICs will have the ability to electronically accept the financial audit contracts, the financial statements, and associated documentation. Additionally, a fully integrated system will ease the burden of sharing data across systems and make it easier to review debt information. This analysis focuses solely on the professional staff in the Debt and Fiscal Management sections. The Debt Management section includes 12 financial analysts, plus .5 of the Division director's time, and 1 individual that manages the State Capital Facilities Board for a total of 13.5 staff. The Fiscal staff number is 14.5 individuals which includes 5 Directors.

The principal value created by the S&LGFD's work is providing the necessary financial oversight and management of debt issuances that result in the lowest possible debt costs for the units under S&LGFD governance. The State's management program for both the Fiscal management "Auditing" of financial statements and the State's sole authority to control the actual debt issuance is considered to be the model program in the United States. As a result of this, Fitch Investors Service grants North Carolina units a one notch, half rating upgrade for all debt rated at AA or below. In 2003, North Carolina had

\$5.6 billion in debt with the AA or below rating. The one notch, half rating upgrade resulted in annual interest savings of \$5.2 million. By 2007 this had grown to \$8.5 billion in debt with the AA or below rating and the one notch, half rating upgrade now generates \$7.8 million in annual interest savings. Over the five year period from 2003 to 2007, the average annual growth rate in the AA or below debt has been 11%.

Assuming the same growth rate of debt over the next 5 years, the S&LGFD should save the units interest savings of between \$8.7 and \$14.7 million annually. Assuming a stable headcount of 28 professional staff in both Fiscal and Debt management, each employee will produce between \$312,000 and \$527,000 in benefits for the units and indirectly all North Carolinians. The net hourly value of each full-time employee is roughly between \$118 and \$221 after a deduction of \$31 per hour in salary costs, which is the average burdened hourly rate for the S&LGFD staff.

Each moment that a professional staff spends in entering data into various spreadsheets and producing reports, it detracts from time spent on higher value analysis activities that protect the current outstanding reputation for fiscal oversight and governance which enables the units to realize the interest savings described above. The S&LGFD-INTEGRATED DEBT & FISCAL MANAGEMENT SYSTEM will reduce the time spent in executing tasks in serial order which will free up individuals for more beneficial activities. The current paper intensive review process has a number of steps that are strictly the result of retrieving and storing the paper based files and reports. The implementation of the S&LGFD-INTEGRATED DEBT & FISCAL MANAGEMENT SYSTEM will allow the professional staff to eliminate those steps in their processing. Also, to be conservative, no efficiency gains are planned in this analysis for the S&LGFD 9 administrative staff.

From a technical perspective, a consolidated database of Fiscal and Debt data will result in extensive savings in worker hours in that a single login would replace multiple attempts at logging into LOGICs to access Debt related data. If the benefit were to be multiplied by a factor of 14.5, then significant benefits would be realized that could translate into substantial savings in costs in the Fiscal Management section of S&LGFD.

The elimination of the manual tasks and the spreadsheet based system will result in gains in efficiencies and the virtual elimination of errors of calculations of which spreadsheet systems are prone. The improved efficiency for Debt Management is estimated at 3%. For Debt Management's 13.5 professional staff, the annual benefit creation is between \$107,000 and \$200,000. The efficiencies gained across both Debt and Fiscal Management Sections will produce improvements in staff efficiencies of 12% from \$428,000 to \$800,000 for Fiscal staff and a 9% improvement in staff efficiencies in the Debt area from \$320,000 to \$600,000. In the implementation year, no benefits derived from improved processing time can be realized since most of the year will be spent on the design and construction of the integrated document management system. The full projection of benefits is described under Benefits in section 3.9.

Gaining these efficiencies also are important to allow the S&LGFD to do more work as illustrated by the growth rate in debt issuance, the ever increasing complexity of the financial statements and the associated accounting standards that each reporting entity must meet. This system will allow professional staff additional time to account for both increases in volume and the additional complexity in coming years without the need to invest in additional professional staff.

1.4 Discounted Cost Benefit Analysis

Using a five-year cost horizon, the cost/benefit analysis for the S&LGFD-INTEGRATED DEBT & FISCAL MANAGEMENT SYSTEM is presented below. Five years after implementation, the Integrated Debt & Fiscal Management System will require a full hardware and software upgrade and the needs of the S&LGFD will be re-evaluated at that time.

					Net Marginal		TOTAL NPV OF
Year	Total Cost	Total Benefit	Marginal Cost	Marginal Benefit	Benefit	NPV of NMB 7%	NMB
0	\$3,899,400	\$0	\$3,899,400	\$0	-\$3,899,400	-\$3,899,400	-\$3,899,400
1	\$3,918,400	\$854,491	\$19,000	\$854,491	\$835,491	\$756,953	-\$3,142,447
2	\$3,945,400	\$1,825,743	\$27,000	\$971,252	\$944,252	\$855,240	-\$2,287,207
3	\$3,972,400	\$2,926,681	\$27,000	\$1,100,938	\$1,073,938	\$972,869	-\$1,314,338
4	\$3,999,400	\$4,171,661	\$27,000	\$1,244,980	\$1,217,980	\$1,103,519	-\$210,818
5	\$4,026,400	\$5,576,627	\$27,000	\$1,404,966	\$1,377,966	\$1,248,631	\$1,037,813

A discount rate of 5% was used to compute a combined total net benefit of \$1,037,813 over the life of the project. Both systems in the form of an integrated application will begin to yield positive marginal benefits in the first full year of the project after the initial startup costs are expended in 2008 and will complete the payback period early in the fifth year. These projections assume an 11% increase in the amount of AA and below debt issued by the state, stable headcount, and 12% improvement in professional staff efficiency for the Fiscal Management group and a 9% professional staff efficiency improvement for the Debt Management Group. Using these assumptions, the project has a cost/benefit ratio of 1.39, using undiscounted cost and benefit figures. The ROI of the project, measured as the ratio of the initial cost to the total undiscounted net marginal benefit, is 40%. The assumptions made in this analysis are extremely conservative. The S&LGFD debt growth rate is based on the average of the last five years from FY 2003 through 2007. Because this analysis is a very conservative estimate of professional staff efficiency improvements and assumes no improvement in administrative staff efficiency and still yields a positive benefit, no sensitivity analysis is performed.

1.5 Other Issues Not Quantified:

Data Integrity

The current spreadsheet application in use at S&LGFD relies completely upon the manual entry of data that is received from each Unit. This data is then "processed" in the spreadsheets versus the hand entered formulas in each cell of the spreadsheets. There are two serious flaws with this approach to processing the data:

- Because there is only one user-id set up in the "system" and multiple users have access to the user-id and password, auditing of changes to the spreadsheets is impossible.
- Anyone can make changes to the formulas that are imbedded in the spreadsheets, meaning significant diligence must be applied when verifying the results of the spreadsheet calculations to ensure the results are correct.

Both of these data integrity issues will be addressed with the implementation of an INTEGRATED DEBT & FISCAL MANAGEMENT SYSTEM.

The internal efficiency benefits alone support the idea of implementation of the S&LGFD-INTEGRATED DEBT & FISCAL MANAGEMENT SYSTEM and the mitigation of risk and improved customer services related to electronic processing bolster the benefits derived from this project. Given the volume of records the S&LGFD manages and their value to the local governments and other reporting units they oversee, and indirectly the citizens of North Carolina, there can be no question that the S&LGFD-INTEGRATED DEBT & FISCAL MANAGEMENT SYSTEM is an important and valuable investment for the Dept. of the State Treasurer, and this project should be executed as soon as possible.

1.6 Recommendations

The S&LGFD produces a number of benefits for local units and therefore indirectly benefits the citizens of the State. Tools to enable efficiency improvements in the S&LGFD will translate into more time spent on higher value activities, which will continue the nationally leading oversight of financial data and debt issuance for the state even as debt issuance grows and the information and accounting requirements become more complex. The S&LGFD-INTEGRATED DEBT & FISCAL MANAGEMENT SYSTEM is an efficiency enabler, and a technology solution to increase the efficiency of review, auditing, and approval activities that both the Fiscal and Debt Management sections' professional staff spend on manual paper based processing of information.

By releasing employees to spend more time on higher values auditing and review activities, the S&LGFD-INTEGRATED DEBT & FISCAL MANAGEMENT SYSTEM will produce positive benefits for the State. Using very conservative projections of potential professional staff efficiency gains and with no planned gains for administrative staff, both systems can potentially produce close to \$5.5 million in combined benefits over the next five years. Again, with conservative projections, the combined ROI for both systems is 40%. Funds should be allocated by the General Assembly for the implementation of this system; and given the benefits that can be realized, the project should be undertaken.

APPENDIX 4: COST BENEFIT ANLYSIS FOR INTEGRATED MANAGEMENT SYSTEM

NC Department of State Treasurer S&LGFD

Prepared 11/2007

Integrated Management System Study Implementation Plan



2 Cost/Benefit Analysis

2.1 Executive Summary

The State and Local Government Finance Division (S&LGFD) of the Department of State Treasurer in conjunction with the Local Government Commission oversees the financial operations of cities, counties, school systems, charter schools, hospital and airport authorities, and water and sewer districts. The oversight system has two principal cornerstones: (1) control over all debt issuance and (2) budgetary and fiscal oversight powers. North Carolina is the only state legally responsible for the issuance of all local government debt. The S&LGFD directly issues or approves the sale of about 300 debt instruments annually. They also regulate the audit processes, extensively reviews financial reports, assists troubled communities, and can intervene in cases of mismanagement and take financial control of the entity. For the regulated units, the division requires an independent financial audit in accordance with generally accepted auditing standards.

The DST Information Technology Division has worked with S&LGFD personnel to jointly propose the implementation of an integrated electronic document management system (S&LGFD-IDMS) to increase operational efficiency and provide a secure recoverable repository of information for the S&LGFD. The S&LGFD IDMS is expected to cost \$1.5 million over the five-year life cycle of the IDMS and is estimated to produce \$2.1 million in direct quantifiable benefits and will also produce many unquantifiable such as the ability to recover from a major physical disaster to S&LGFD facilities. Funds have been allocated to cover expenditures related to the S&LGFD-IDMS; and with a projected ROI of 45% over five years, project activities to implement the system should commence.

2.2 Statement of Problem

The S&LGFD of the Department of State Treasurer executes the statutory duties of issuing all local government debt for the state and oversight to ensure units are following Generally Accepted Accounting Practices (GAAP). The State Treasurer's office was granted this authority in 1932 in response to North Carolina's high rate of municipal bond defaults during the Great Depression.

The S&LGFD in conjunction with the Local Government Commission oversees the financial operations of cities, counties, school systems, charter schools, hospital and airport authorities, and water and sewer districts. The oversight system has two principal cornerstones: (1) control over all debt issuance and (2) budgetary and fiscal oversight powers. The S&LGFD executes with two major departments Debt Management which handles the debt issuance and the Fiscal Management which handles the review of the annual financial statements and the independent auditors. North Carolina is the only state legally responsible for the issuance of all local government debt. The S&LGFD directly issues or approves the sale of about 300 debt instruments annually. The division provides all this support with a staff of only 37 permanent employees.

The fiscal oversight responsibility includes the regulation of the audit process, extensively reviews financial reports, assists troubled communities, and can intervene in cases of mismanagement and take financial control of the entity. For the regulated units, the division requires an independent financial audit in accordance with generally accepted auditing standards. Each local unit uses the state's standard audit contract; the division approves the selection and payment of each local government's independent auditor, approves the contract, and approves the final payment of the auditor once the financial report has been approved by the division. Fiscal Management handles over 1,000 financial reports each year, which consists of approximately 200,000 pages of information.

The entire operation of the division relies on paper files (although some information is submitted electronically) to review the financial statements and for the approval and issuance of debt. In particular the division's professional account and financial management staff are almost entirely dependent on the availability and access to the paper files. Therefore, analysis tasks and associated

decision making can be delayed while the physical file is located. Additionally, many processes and tasks are in place to support the paper process which can be eliminated by the introduction of an electronic document repository and automated workflow system.

The Information Technology Division is working with the S&LGFD to create an integrated document management system. The system, when implemented, will leverage the department's existing investment in this technology for Retirement and Unclaimed Property. The IDMS will provide a searchable and secure repository of indexed electronic document and a workflow routing and tracking system to manage the core business activities of the division, such as review and approval of financial statements, selection and approval of an independent auditor, and the approval and issuance of bond issues (debt) for the local entities.

Currently debt issuance is growing at an annual basis of greater than 10%, and the accounting rules and requirements in terms of cash management are becoming more complex and will require additional review time for unit financial statements. The S&LGFD views the implementation of this system as critical to continue the outstanding support to local government in North Carolina without significant staff increases. These operational efficiencies will help to ensure North Carolina's continued leadership position in fiscal oversight and governance. The tangible benefit of this is in interest savings on the debt issued by local government entities. Fitch Investors Service grants North Carolina local units an automatic one-notch upgrade on all debt issued at an AA rating or lower. In FY 2007, North Carolina had outstanding debt rated at AA or lower of \$8.5 billion. With the on- notch (nine basis point) savings in the annual debt service, North Carolina local governments realized annual interest payment savings of \$7.8 million.

2.3 Solution Integrated Document Management System

Integrated Document Management Systems increase efficiency through reductions in time spent in document retrieval. Large volumes of information can be made available almost instantaneously and concurrently shared by many people, unlike single-use paper files that can be misplaced or destroyed. An electronic workflow system models a business process to allow for greater control and monitoring of process activities. Management can immediately determine where a given piece of work is in a

business process and analyze data on processes to identify bottlenecks and areas for improvement. A secure and stable document management also provides protection for records against disasters or theft. The DST Information Technology Division and the S&LGFD proposes the development and implementation of an integrated document management system for the S&LGFD, (the S&LGFD-IDMS).

The DST Information Technology Division plans to use third-party services to implement the S&LGFD-IDMS. The proposed system will be composed of an electronic document repository, a document imaging solution, and a business process workflow system. Documentum ApplicationXtender 5.3 will serve as the electronic document repository for concurrent storage and retrieval of information. Documentum WorkflowXtender will provide workflow services for the modeling of business processes and management of business process instances such as individual claims or holder audits. The system will be housed in the Department of the State Treasurer Data Center in the Albemarle Building in Downtown Raleigh where it can quickly be serviced by data center operators and Information Technology technical staff housed in the building.

Included in the initial implementation, approximately one million pages of paper financial statements will be converted and imported into the new document repository allowing S&LGFD Fiscal and Debt Management staff to access to over 5 years of financial statements.

2.4 Implementation Costs

The initial implementation of the S&LGFD-IDMS is projected to cost \$1,268,440. The initial costs include the purchase of hardware to support the application and all software licensing costs. The initial implementation costs also include expenses for the conversion of paper documents to electronic format, and professional services for development activities related to the modeling of business processes in the workflow system. Finally, infrastructure support and maintenance agreements on the system will incur charges in the initial implementation period as the system is brought on-line. A detailed breakdown of implementation costs are presented below.

Budget Component	Amount
Internal Personnel	\$ 106,440
External Personnel	\$ 675,000
Other External Costs	\$ 5,000
Facilities	\$ 52,000
Infrastructure Hardware	\$ 104,000
Infrastructure Software	\$ 161,000
Other	\$ 165,000
Total Implementation Cost	\$ 1,268,440

Subsequent years will result in lower costs for the S&LGFD-IDMS as only maintenance costs and internal support costs will incur after the implementation. The lifetime of the S&LGFD-IDMS is estimated to be five years after full implementation, at which time, the system will require a complete hardware and software refresh and other alternatives may be considered. Cost projections for the duration of the S&LGFD-IDMS after implementation are presented below.

On-going Operations and Maintenance for 5 Years

Budget Component	Year 1	Year 2	Year 3	Year 4	Year 5
Internal Personnel	\$ 15,000	\$ 16,500	\$ 16,500	\$ 16,500	\$ 16,500
External Personnel	\$0	\$0	\$0	\$0	\$0
Other External Costs	\$0	\$0	\$ 0	\$ 0	\$0
Facilities	\$ 15,000	\$0	\$ 0	\$ 0	\$0
Infrastructure Hardware	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500
Infrastructure Software	\$ 15,000	\$ 65,000	\$ 15,000	\$ 49,000	\$ 15,000
Other	\$ 0	\$ 0	\$0	\$ 0	\$ 0
Total Cost	\$ 49,500	\$ 86,000	\$ 36,000	\$ 70,000	\$ 36,000

Over the course of five years, the S&LGFD-IDMS is projected to incur a Total Cost of Ownership (TCO) of \$1,650,940. This cost projection includes all software and hardware purchase costs, support agreements on software and hardware, consulting fees paid to the integrator, costs associated with document conversion, and internal costs associated with 6,248 hours of time involving S&LGFD and IT staff on the development and support of this application. The TCO also reflects an additional \$105,000 that has been incurred in producing the requirement study for this project.

2.5 Potential Benefits

Benefits of the S&LGFD-IDMS were calculated using imputed benefits derived from efficiency improvements in both the Fiscal Management and Debt Management sections operations. In order to estimate the derived benefits of the S&LGFD-IDMS, it is necessary to calculate the value of employees in terms of benefits produced for the state and local government entities that S&LGFD supports which indirectly results in savings to all North Carolinians. This analysis will focus solely on the professional

staff in the Fiscal and Debt Management sections, because the planned repurposing of existing administrative staff to support document scanning and indexing no efficiency gains for this staff was used in the analysis. The professional staff in the Fiscal management section includes 14 accountants and includes .5 of the Division director's time for a total of 14.5 professional staff. The Debt Management section includes 12 financial analysts, plus .5 of the Division director's time, and 1 individual that manages the State Capital Facilities Board for a total of 13.5 staff. It was important to separate the two sections because, as part of our analysis, Fiscal management will gain more efficiencies from the IDMS than will the Debt Management Section.

The principal value created by the S&LGFD's work is providing the necessary financial oversight and management of debt issuances that result in the lowest possible debt costs for the units under S&LGFD governance. The state's management program for both the Fiscal management "Auditing" of financial statements and the state's sole authority to control the actual debt issuance is considered to be the model program in the United States. As a result of this, Fitch Investors Service grants North Carolina units a one notch, half rating upgrade for all debt rated at AA or below. In 2003, North Carolina had \$5.6 billion in debt with the AA or below rating the one notch, half rating upgrade resulted in annual interest saving of \$5.2 million. By 2007 this had grown to \$8.5 billion in debt with the AA or below rating and the one notch, half rating upgrade now generates \$7.8 million in annual interest savings. Over the five year period from 2003 to 2007, the average annual growth rate in the AA or below debt has been 11%.

Assuming the same growth rate of debt over the next 5 years, the S&LGFD should save the units interest saving of between \$8.7 and \$14.7 million annually. Assuming a stable headcount of 28 professional staff in both Fiscal and Debt management, each employee will produce between \$312,000 and \$527,000 in benefits for the units and indirectly all North Carolinians. The net hourly value of each full-time employee is roughly between \$118 and \$221 after a deduction of \$31 per hour in salary costs, which is the average burdened hourly rate for the S&LGFD staff.

Each moment that a professional staff spends in document retrieval activities detracts from time spent on higher value analysis activities that protect the current outstanding reputation for fiscal oversight and governance which enables the units to realize the interest savings described above. The S&LGFD-

IDMS will reduce the time spent in document retrieval and management, freeing up individuals for more beneficial activities. The current paper intensive review process has a number of steps that are strictly the result of retrieving and storing the paper based files. The implementation of the S&LGFD-IDMS will allow the professional staff to eliminate those steps in their processing. Also, to be conservative, no efficiency gains are planned in this analysis for the S&LGFD 9 administrative staff as they will be repurposed for scanning and indexing activities.

The elimination of the paper based steps and the efficiencies gained were found to be higher for the Fiscal Management review processes than the processes for Debt Management for the application and approval of new debt issuances. For Fiscal Management the estimated savings is a 5% improvement of professional staff efficiency and improved efficiency for Debt Management is estimated at 3%. These efficiencies result in an annual benefit creation for Fiscal Management with 14.5 professional staff of between \$178,000 and \$334,000. For Debt Management's 13.5 professional staff, the annual benefit creation is between \$107,000 and \$200,000. The efficiencies gained across both Debt and Fiscal Management Sections will produce benefits between \$285,000 and \$534,000 after deductions for personnel costs. In the implementation year, no benefits derived from improved processing time can be realized since most of the year will be spent on the design and construction of the integrated document management system. The full projection of benefits is described in the Additional Tables section of this chapter.

Gaining these efficiencies also are important to allow the S&LGFD to do more work as illustrated by the growth rate in debt issuance and the ever increasing complexity of the financial statements and the associated accounting standards that each reporting entity must meet. This system will allow professional staff additional time to account for both increases in volume and the additional complexity in coming years without the need to invest in additional professional staff.

2.6 Discounted Cost Benefit Analysis

Using a five-year cost horizon, the cost/benefit analysis for the S&LGFD-IDMS is presented below. Five years after implementation, the S&LGFD-IDMS will require a full hardware and software upgrade and the document management needs of the S&LGFD will be re-evaluated at that time.

					Net		
Year	Total Cost	Total Benefit	Marginal Cost	Marginal Benefit	Marginal Benefit	NPV of NMB 5%	TOTAL NPV OF NMB
1001				30			
0	\$1,268,440	\$0	\$1,268,440	\$0	⁻ \$1,268,440	-\$1,268,440	-\$1,268,440
1	\$1,317,940	\$325,520	\$49,500	\$325,520	\$276,020	\$248,114	-\$1,020,326
2	\$1,403,940	\$695,521	\$86,000	\$370,001	\$284,001	\$253,697	-\$766,629
3	\$1,439,940	\$1,114,926	\$36,000	\$419,405	\$383,405	\$346,127	-\$420,502
4	\$1,509,940	\$1,589,204	\$70,000	\$474,278	\$404,278	\$363,518	-\$56,985
5	\$1,545,940	\$2,124,429	\$36,000	\$535,225	\$499,225	\$451,179	\$394,194

Using a discount rate of 5%, the S&LGFD-IDMS project is expected to produce \$394,194 in total net benefits over the life of the project. The S&LGFD-IDMS will begin yielding positive marginal benefits in the first full year of the project after the initial startup costs are expended in 2008. The S&LGFD-IDMS will complete the payback period early in the fifth year. These projections assume a 11% increase in the amount of AA and below debt issued by the state, stable headcount, and 5% improvement in professional staff efficiency for the Fiscal Management group and a 3% professional staff efficiency improvement for the Debt Management Group. Using these assumptions, the project has a cost/benefit ratio of 1.37, using undiscounted cost and benefit figures. The ROI of the project, measured as the ratio of the initial cost to the total undiscounted net marginal benefit, is 45%. The assumptions made in this analysis are extremely conservative. The S&LGFD debt growth rate is based on the average of the last five years from FY 2003 through 2007. Because this analysis is a very conservative estimate of professional staff efficiency improvements and assumes no improvement in administrative staff efficiency and still yields a positive benefit, no sensitivity analysis is performed.

2.7 Recommendations

The S&LGFD produces a tremendous amount of benefits for local units and therefore indirectly benefits the citizens of the State. Tools to enable efficiency improvements in the S&LGFD will translate into more time spent on higher value activities which will continue the nationally leading oversight of

financial data and debt issuance for the state even as debt issuance grows and the information and accounting requirements become more complex. The S&LGFD-IDMS is an efficiency enabler, and a technology solution to increase the efficiency of review, auditing, and approval activities that both the Fiscal and Debt Management sections' professional staff spend on manual paper based processing of information.

By releasing employees to spend more time on higher values auditing and review activities, the S&LGFD-IDMS will produce positive benefits for the State. Using very conservative projections of potential professional staff efficiency gains and with no planned gains for administrative staff, the S&LGFD-IDMS can potentially produce close to \$2.1 million in benefits over the next five years. Again, with conservative projections, the ROI for the UPP-IDMS is 45%. Funds should be allocated by the General Assembly for the implementation of this system; and given the benefits that can be realized, the project should be undertaken.

2.8 Other Issues Not Quantified

The S&LGFD is housed in office space on Fair Meadow Drive in Raleigh. All financial statements and associated auditor contracts, debt applications, debt packages, and debt payment schedules are housed at this location. A fire in this building could be catastrophic to the division, wiping five years of financial information and 20 to 30-year-old debt records. The current method of document storage provides absolutely no disaster recovery capability.

The Dept. of the State Treasurer Data Center is housed in the fire-retardant Albemarle Building in Downtown Raleigh. The building is secured by a State Capitol Police Office during business hours, and both the building and the data center can only be accessed with magnetic identification cards. The State Treasurer Data Center is almost continually staffed by computer operators trained to provide immediate assistance with system infrastructure issues and escalate issues to other IT personnel as appropriate. All systems in data center are backed up nightly and backup media are stored in secure off-site locations for disaster recovery. The data center is designed to the service the 450,000 active and retired members of the North Carolina Retirement System, issuing 190,000 paychecks worth over \$100 million each month. Documentum's ApplicationXtender and WorkflowXtender and Captovation Capture are already used by the Retirement Services Division and Unclaimed Property Division to

address their document management and imaging needs. The Information Technology Division already has extensive knowledge and background in these products and can apply that knowledge to the S&LFD-IDMS.

Additionally, one of the responsibilities of the S&LGFD is to transfer audited financial statement and related information to other state government business partners such as the Department of Revenue, the Department of Public Instruction, and the Department of Health and Human Services. Currently, these transfers are made by mailing hard-copy document to the partners. With the implementation of the S&LGFD-IDMS, these could either be published to a web portal by the business partner or sent electronically via e-mail. This would eliminate the packaging time and shipping cost of sending hard-copy. Fiscal Management alone processes approximately 200,000 pages of information each year. Since the information is public information, the same web portal can be used by private citizens to obtain the financial statements they currently request from the S&LGFD and are mailed out in hard copy.

This system also gives the S&LGFD the ability to continue to meet the 3 day Service Level goal they have with local government units to turn around the review and approval of their financial statements. With the increasing complexity of accounting standards which are requiring more in depth review of the statements and in some cases require a review across multiple years of financial information, the proposed system allows the S&LGFD to meet the 3-day Service Level goal even with the additional analysis requirements. Also, by processing auditor payment approvals electronically, this system should enable units to reduce the time it currently takes to obtain the approval and process the payment to their outside auditors. Finally, with an electronic repository of documents, the S&LGFD in the event of an epidemic or other similar type of disaster could allow their staff to continue to review and process information remotely from their homes without coming to the S&LGFD Raleigh offices. The current paper based file room requires all work to be done in the S&LGFD facility in Raleigh.

The internal efficiency benefits alone support the idea of implementation of the S&LGFD-IDMS and the mitigation of risk and improved customer services related to electronic processing bolster the benefits derived from this project. Given the volume of records the S&LGFD manages and their value to the local governments and other reporting units they oversee, and indirectly the citizens of North Carolina,

there can be no question that the S&LGFD-IDMS is an important and valuable investment for the Dept. of the State Treasurer, and this project should be executed as soon as possible.

S&LGFD Benefit Metrics

Note: Numbers exclude Industrial Revenue Bonds.

ACTUALS PROJECTED

Debt Type	2003		2004	<u>2005</u>		<u>2006</u>		<u>2007</u>		<u>2008</u>		2009		<u>2010</u>		<u>2011</u>		2012		<u>2013</u>	
	_	<u>-</u> ,									-										_
GO & IP _ Municipalities `	\$	0.5	\$ 0.7	\$	0.9	\$	1.0	\$	0.9	\$	1.0	\$	1.1	\$	1.2	\$	1.4	\$	1.5	\$	1.7
GO & IP _ County	3.4		4.1	4.7		5.1		5.7		\$	6.3	\$	7.0	\$	7.8	\$	8.7	\$	9.6	\$	10.7
Rev, Revolving, Sp Obl_ Municipalities	1.1		1.2	1.1		1.3		1.3		\$	1.4	\$	1.6	\$	1.8	\$	2.0	\$	2.2	\$	2.4
Rev, Revolving, Sp Obl_ County	<u>0.6</u>		0.6	0.6		<u>0.5</u>		<u>0.6</u>		\$	0.7	\$	0.7	\$	0.8	\$	0.9	\$	1.0	\$	1.1
Total:	\$	5.6	\$ 6.6	\$	7.3	\$	7.9	\$	8.5	\$	9.4	\$	10.5	\$	11.6	\$	12.9	\$	14.4	\$	16.0
Growth Rate (Year over Year):		-	17.9%		10.6%		8.2%		7.6%		11.1%		11.1%		11.1%		11.1%		11.1%		11.1%
	0.09	925%	0.0925%	0	.0925%	0.0	925%	0.	0925%	0	.0925%	0	.0925%		0.0925%		0.0925%		0.0925%		0.0925%
1 Notch 9 Basis Point Int. Savings	5,180	0,000	6,105,000	6,7	752,500	7,30	7,500	7,8	62,500	8,7	32,826	9,6	99,491	10,	,773,160	1	1,965,677	13,	,290,197	14	,761,332
																					I
Fiscal Professional Staff (Includes .5 Director)		14.5	14.5		14.5		14.5		14.5		14.5		14.5		14.5		14.5		14.5		14.5
Debt Management Staff (Include .5 Director & 1 State Capital Facilities		13.5	13.5		13.5		13.5		13.5		13.5		13.5		13.5		13.5		13.5		13.5
Board Director)		13.3	13.5		13.3		13.3		13.3		13.5		13.3		15.5		15.5		13.5		15.5

Administrative Staff		9	9	9	9	9	9	9	9	9	9	9
Hourly Cost of S&LGFD Staff		\$31.63	\$31.63	\$31.63	\$31.63	\$31.63	\$31.63	\$31.63	\$31.63	\$31.63	\$31.63	\$31.63
Hourly Benefit of S&LGFD Professional Staff		\$88.94	\$104.82	\$115.94	\$125.47	\$135.00	\$149.95	\$166.54	\$184.98	\$205.45	\$228.20	\$253.46
Net Benefit of S&LGFD Professional Staff		\$57.31	\$73.20	\$84.31	\$93.84	\$103.37	\$118.32	\$134.91	\$153.35	\$173.83	\$196.57	\$221.83
Fiscal Professional Staff Efficiency Improvement												
Improvement of	2.50%						\$89,210	\$101,725	\$115,625	\$131,064	\$148,212	\$167,258
Improvement of	5.00%						\$178,420	\$203,450	\$231,251	\$262,128	\$296,424	\$334,516
Improvement of	7.50%						\$267,631	\$305,175	\$346,876	\$393,192	\$444,636	\$501,774
Improvement of	10.00%						\$356,841	\$406,900	\$462,501	\$524,256	\$592,848	\$669,031
Debt Mgmt Professional Staff Efficiency Improvement												
Improvement of	2.00%						\$71,368	\$81,380	\$92,500	\$104,851	\$118,570	\$133,806
Improvement of	2.50%						\$89,210	\$101,725	\$115,625	\$131,064	\$148,212	\$167,258
Improvement of	3.00%						\$107,052	\$122,070	\$138,750	\$157,277	\$177,854	\$200,709
Improvement of	4.00%						\$142,736	\$162,760	\$185,000	\$209,703	\$237,139	\$267,613
Administrative Staff												
Improvement	0.00%											
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