## **State of North Carolina**



# Debt Affordability Study February 1, 2010

**Debt Affordability Advisory Committee** 

Department of State Treasurer 325 North Salisbury Street Raleigh, NC 27603-1385 Phone: 919-508-5176

## STATE OF NORTH CAROLINA DEBT AFFORDABILITY ADVISORY COMMITTEE



February 1, 2010

To: Governor Beverly Perdue

Lieutenant Governor Walter Dalton, President of the North Carolina Senate Senator Marc Basnight, President Pro Tempore of the North Carolina Senate Representative Joseph Hackney, Speaker of the North Carolina House of Representatives Members of the 2010 General Assembly through the Fiscal Research Division

Attached is the February 1, 2010 report of the Debt Affordability Advisory Committee submitted to you pursuant to North Carolina General Statute §142-101. The report was created to serve as a tool for sound debt management practices by the State of North Carolina.

The report provides the Governor and the General Assembly with a basis for assessing the impact of future debt issuance on the State's fiscal position and enables informed decision-making regarding both financing proposals and capital spending priorities. A secondary purpose of the report is to provide a methodology for measuring, monitoring and managing the State's debt levels, thereby protecting North Carolina's bond ratings of AAA/Aaa/AAA.

The methodology used by the Committee to analyze the State's debt position incorporates trends in debt levels, peer group comparisons and provides recommendations within adopted guidelines. The Committee has also provided recommendations regarding other debt and financial management related policies considered desirable and consistent with the sound management of the State's debt.

Respectfully submitted,

Janet Cowell. State Treasurer

Chair, Debt Affordability Advisory Committee

### **Debt Affordability Advisory Committee Membership**

Ms. Janet Cowell, State Treasurer, Chair

Mr. Kenneth Lay, Secretary of Revenue

Mr. David McCoy, State Controller

Mr. Charles Perusse, State Budget Officer

Ms. Beth Wood, State Auditor

Mr. Stuart Bell, Senate Appointee

Mr. J.W. Davis, Senate Appointee

Dr. James V. Porto, House Appointee

Dr. Jack Vogt, House Appointee

## **Table of Contents**

		Page
Summary		1
Section I	General Fund Debt Affordability	4
	Review of General Fund Debt	4
	Review of State Credit Ratings and Comparative Ratios	9
	General Fund Guidelines, Debt Affordability Model and Results	11
	General Fund Analysis - Other	14
Section II	Transportation Debt Affordability	17
	Review of Transportation Funds, Debt and Other Commitments	17
	Comparative Transportation Ratios	21
	Transportation Debt Guidelines, Affordability Model and Results	21
Section III	Transportation and General Fund Ratios Combined	24
Appendix A	General Fund - Revenues and Liabilities, Discussion of Unreserved Fund Balance and 10-Year Model Solutions	25
Appendix B	Transportation Funds – Revenues and Liabilities and 10-Year Model Solution	30

## **List of Charts and Tables**

	Page
Summary General Fund Debt Capacity 5-Year Summary Transportation Debt Capacity 5-Year Summary Combined General Fund and Transportation Debt Ratios	1 2 2 2 2
General Fund Debt Affordability Review of General Fund Debt Outstanding Net Tax-Supported Debt Historic and Projected Net Tax-Supported Debt Uses of Tax-Supported Debt Historic and Projected Debt Service Historic and Projected Appropriation-Supported Debt	4 4 4 5 6 7 8
Review of State Credit Ratings and Comparative Ratios NC Credit Rating Matrix NC Comparative Debt Ratios	9 9 10
General Fund Guidelines, Debt Affordability Model and Results General Fund Debt Capacity 5-Year Summary 4% Target Solution Graph	11 12 13
General Fund Analysis Other Debt as Percentage of Personal Income 10-Year Payout Ratios General Fund Reserved and Unreserved Fund Balances	14 14 15 16
Transportation Debt Affordability Review of Transportation Funds, Debt and Other Commitments Transportation Debt Service Transportation Expenses by Year	17 17 19 20
Comparative Transportation Ratios Transportation Peer Group Comparisons	21 21
Transportation Debt Guidelines, Affordability Model and Results Transportation Debt Capacity 5-Year Summary	23 23
Transportation and General Fund Ratios Combined Combined Transportation and General Fund Debt Ratios	24 24
Appendix A General Fund Revenue Estimates General Fund Debt Capacity 10-Year Solution	25 26 29
Appendix B Transportation Revenue Estimates Transportation Debt Capacity 10-Year Solution	30 30 32

#### **SUMMARY**

#### **Background and Context**

Studies of debt affordability are essential management tools that help to provide a comprehensive assessment of a government's ability to issue debt for its capital needs. Standard & Poor's, one of the three major bond rating agencies, stated in a 2005 report that "Most of the 'AAA' states have a clearly articulated debt management policy. Evaluating the impact of new or authorized but un-issued bond programs on future operating budgets is an important element of debt management and assessing debt affordability." Control of debt burden is a key factor used by rating agencies' analysts in assessing credit quality.

The Debt Affordability Advisory Committee (the "Committee" or "DAAC") is required to annually advise the Governor and the General Assembly of the estimated debt capacity of the General, Highway and Highway Trust Funds for the upcoming ten fiscal years. The legislation also directs the Committee to recommend other debt management policies it considers desirable and consistent with the sound management of the State's debt. The Committee hereby presents its Study for 2010.

#### **Debt Controls and Ratings**

Debt capacity is a limited and scarce resource. It should be used only after evaluating the expected results and foregone opportunities. The Study enables the State to structure its future debt issuances within existing and future resource constraints by providing a comparison of its current debt position to relevant industry and peer group standards. The Study can thus be used to help develop and implement the State's capital budget and is premised on the concept that resources, not only needs, should guide the State's debt issuance program. The Committee's adopted guidelines attempt to strike a balance between providing sufficient debt capacity to allow for the funding of essential capital projects and imposing sufficient discipline so that the State does not create a situation that results in a loss of future budgetary flexibility and deteriorating credit position.

During the year, the State's ratings were affirmed at Aaa (Moody's), AAA (S&P) and AAA (Fitch). Currently, all of the State's debt ratios are at or below the median levels for the State's peer group composed of all states rated "triple A" by all three rating agencies. North Carolina's debt is considered manageable at current levels

The Committee has adopted the ratio of debt service as a percentage of revenues as the controlling metric that determines the State's debt capacity. Although the State currently anticipates a modestly positive tax revenue environment over the biennium buoyed by temporary tax increases and surcharges, the model's revenue component also reflects the expiration of these measures. In addition, the model factors in the issuance of the State's balance of already authorized but unissued debt of approximately \$1.9 billion. The outcome is that the State has substantially exhausted its General Fund debt capacity until FY 2012. The ratio of debt service to revenues is projected to stand at 3.99% and 3.95% in FY 2012 and FY 2013.

The combined debt capacity of the Highway Fund and the Highway Trust Fund has been more than utilized until FY 2013 even after making adjustments resulting from the delay of certain NC Turnpike Authority projects and the resulting gap funding requirement. The ratio of transportation debt service to revenues is projected to reach 6.9% in FY 2011, well above its

limit. On a combined basis, the General Fund and Transportation Funds debt service is projected to peak at approximately 4.30% of revenues in FY 2012.

Table 1

General Fund
Net Tax-Supported Debt Capacity using 4.0% debt service/revenues target ratio
(In Millions of dollars)

Fiscal Year	2010	2011	2012	2013	2014
Total Additional Debt Capacity per Year *	\$18.1	\$0.0	\$90.9	\$626.4	\$361.1
Debt Capacity Available Each and Every Year	\$9.1	\$9.1	\$9.1	\$9.1	\$9.1

<sup>\*</sup> In addition to that already Authorized but Unissued. Assumes additional debt capacity is authorized and issued in stated fiscal year.

Table 2

Transportation
Net Tax-Supported Debt Capacity using 6.0% debt service/revenues target ratio
(In Millions of dollars)

Fiscal Year	2010	2011	2012	2013	2014
Total Additional Debt Capacity per Year *	\$0.0	\$0.0	\$0.0	\$21.4	\$298.6
Debt Capacity Available Each and Every Year	N/A	N/A	N/A	N/A	N/A

<sup>\*</sup> In addition to that already Authorized but Unissued. Assumes additional debt capacity is authorized and issued in stated fiscal year.

Table 3

#### General Fund and Transportation Funds Combined Debt Service / Revenue Percentages

Fiscal Year	2010	2011	2012	2013	2014
General Fund	3.59%	3.70%	3.99%	3.95%	3.69%
Transportation *	3.92%	6.90%	6.41%	6.17%	5.94%
Combined	3.63%	4.09%	4.30%	4.24%	3.98%

Note: Percentages are based on forecasted revenues and debt service.

<sup>\*</sup> GAP Funding for North Carolina Turnpike Authority projects assumed to reach \$99 million in FY 2011 and thereafter.

#### **Other Recommendations**

#### **Structural Budget Balance**

The Committee confirms its view that North Carolina's priorities of achieving structural budgetary balance and rebuilding the State's reserve funds are strong evidence of financial stability and flexibility. The Committee also recognizes that past legislative action targeting an 8% level of reserves in the State's Budget Stabilization Fund (also known as the "Rainy Day Fund") should serve the State well in the event of future economic turndowns.

In the current economic climate, the Committee recognizes that utilization of the State reserves and other short term measures may have been inevitable. The Committee also recognizes that utilization of the federal stimulus funds was a key in balancing the State's budget. However, the Committee recommends that permanent solutions be devised that promote long term budgetary stability and reserve replenishment be developed as quickly as possible. These are key factors in maintaining our "triple A" bond rating,

#### **General Obligation Bonds versus Special Indebtedness**

The State has relied extensively on the authorization of Special Indebtedness (for example, Certificates of Participation and lease revenue bonds) to provide debt financing for capital projects since 2000. Such indebtedness is not subject to a vote of the people and its repayment is based on the State's annual debt service appropriation. For these reasons, Special Indebtedness is rated lower than the State's General Obligation "GO" bonds and typically carries a higher interest rate, which increases the cost of projects so financed. The State's General Fund percentage of non-voter approved Special Indebtedness is projected to exceed the median level for states in its peer group. Therefore the Committee recommends that the State consider the authorization of General Obligation debt as the preferred method to provide debt financing for its capital needs.

#### **Control of Debt Authorization Authority \***

The Committee strongly recommends that the State of North Carolina maintain its historically conservative debt management practices with regard to (1) centralized debt authorization; (2) debt management and issuance; and (3) classification of debt and debt-like obligations when determining the debt burden. These practices are among those considered by the rating agencies when assigning their "triple A" ratings to the State and ultimately allow the State to maintain a healthy financial position.

We recommend the General Assembly clarify its legislative intent regarding any agency's ability to enter into alternative financial arrangements that may include debt and debt-like obligations. Specifically, the Committee believes that such legislation should include but is not limited to: (1) borrowing amounts; (2) the terms of the obligation; and (3) the impact on the State's debt affordability as determined by the State Treasurer.

\*Mr. Perusse and Mr. Lay voted not to include this recommendation in the 2010 Study.

#### SECTION I GENERAL FUND DEBT AFFORDABILTIY

#### **Review of General Fund Debt**

#### **Outstanding Debt**

The State issues two kinds of tax-supported debt: General Obligation ("GO") Bonds and various kinds of "Special Indebtedness", which are also known as non-GO debt or appropriation-supported debt. GO Bonds are secured by the full faith, credit and taxing power of the State. The payments on all other kinds of long-term debt, including Limited Obligation Bonds, Certificates of Participation ("COPs"), lease-purchase revenue bonds, capital lease obligations and installment purchase contracts are subject to appropriation by the General Assembly. Appropriation-supported debt may sometimes also be secured by a lien on facilities or equipment.

Debt that is determined to be self-supporting or supported by non-General Fund tax revenues does not constitute net tax-supported debt but is included in the definition of "gross" tax-supported debt used by some rating analysts. The State's outstanding gross and net tax-supported debt positions as of June 30, 2009 are shown below.

#### Chart 1

State of North Carolina Outstanding Net Tax-Sup	ported Debt
	June 30, 2009
General Obligation Bonds Total	\$ 5,169,265,000
Less: Payable from Highway Trust Fund	593,935,000
Net General Fund Tax-Supported General Obligation Bonds	\$ 4,575,330,000
Appropriation Supported Indebtedness:	
Certificates of Participation / Lease Revenue Bonds Less: Self-Supporting payable from Energy Performance Contracts, 1	\$ 1,776,841,764
Tobacco and Health and Wellness Trust Funds	397,889,441
Net Tax-Supported Certificates of Participation / Lease Revenue Bonds	\$ 1,378,952,323
Plus: Installment Purchase Contracts / Equipment & Capital Leases <sup>2</sup>	51,823,046
Net Appropriation-Supported Indebtedness	\$ 1,430,775,369
Fotal General Fund and Highway Tax-Supported Debt	\$ 6,997,929,810
Less: Self - Supporting / HighwayTrust Fund Debt	991,824,441
Net General Fund Tax-Supported Debt	\$ 6,006,105,369
HB 1264 Debt Supported by the Clean Water, Natural Heritage and Parks and Recreation Trust Funds is not considered to be self-supporting because these Trust Funds flow through the General Fund. Source: Office of State Budget & Management pursuant to G.S. 147-33.72H.	

#### **Trends in Amounts of General Fund Debt**

After showing substantial growth in the early 2000's, it is now accurate to portray the State's net tax-supported debt position as having reached a plateau. Chart 2 below illustrates the outstanding amounts of General Fund net tax-supported debt over the last five years and projects the amount outstanding through FY 2014. As the State continues to issue debt that has already been authorized, the absolute level of General Fund tax-supported debt is projected to increase and will stand at approximately \$6.4 billion by the end of FY 2011 and FY 2012.

#### Chart 2

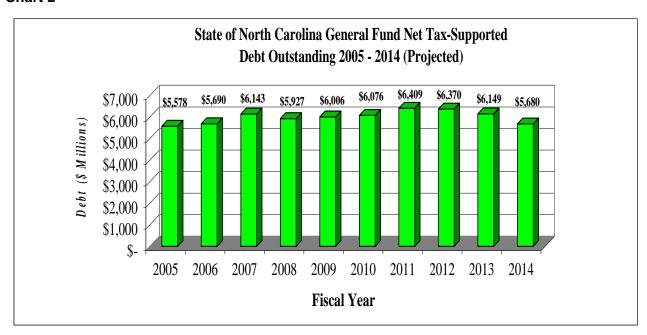
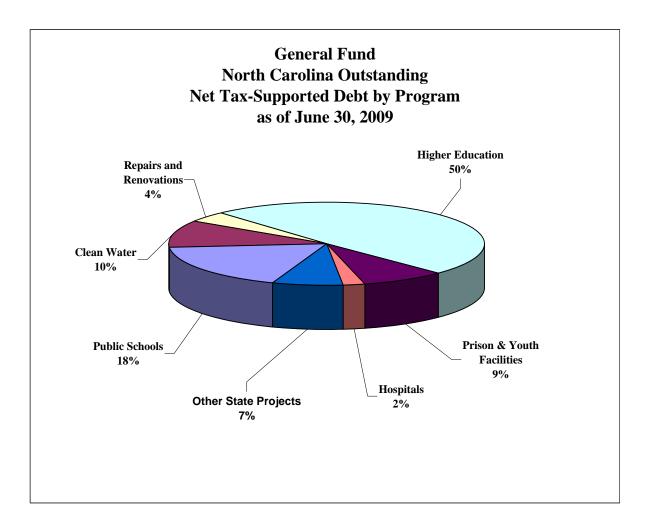


Chart 2 above incorporates all of the State's authorized, but unissued, debt. The State issues debt on a cash flow basis. Bond issues are timed to provide funds as they are actually needed and there is typically a lag between when debt is authorized and when it is actually issued. As of December 31, 2009, the total amount of authorized but unissued tax-supported debt totaled approximately \$1.9 billion, consisting of approximately \$488 million of GO debt with appropriation-supported debt comprising the balance. For planning purposes, the State anticipates issuance of all currently authorized but unissued debt by the end of FY 2013.

#### **Uses of Outstanding General Fund Tax-Supported Debt**

The following chart illustrates the uses for which the State has issued net tax-supported debt calculated on the amount outstanding. The State has used the proceeds of its debt programs for many purposes with the two largest being to provide facilities and infrastructure for higher education (50%) and public schools (18%).

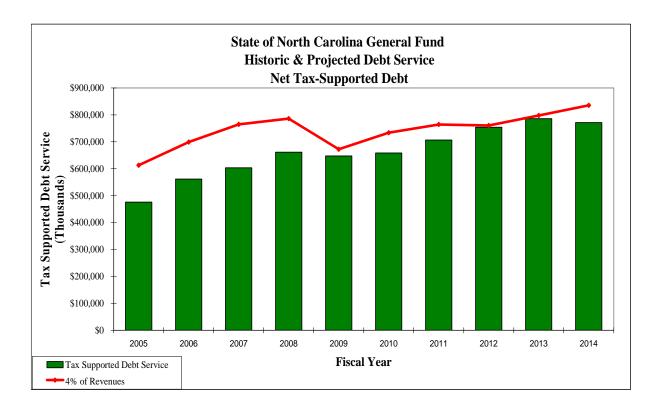
Chart 3



#### **Debt Service**

Over the last five years, the amount the State spends on debt service has increased, both on an absolute basis and as a percentage of general tax revenues. This trend is expected to continue, as the absolute amount of outstanding debt increases. Both the State's historic and projected debt service, incorporating the debt service on all authorized but unissued amounts, is illustrated below in Chart 4. The absolute amount of annual debt service is projected to peak in FY 2013 at approximately \$785 million. As a percentage of general tax revenues, General Fund-supported debt service peaks in FY 2012 at 3.99%.

#### Chart 4



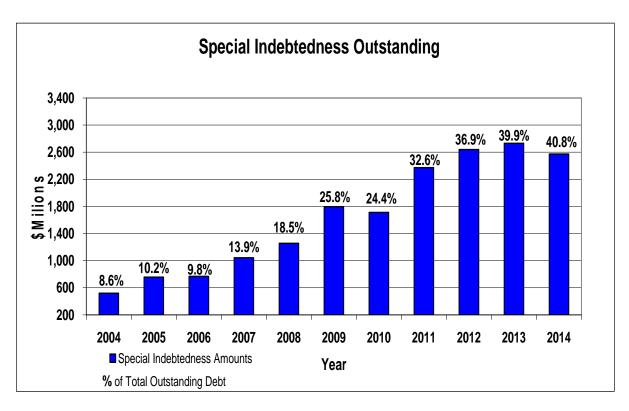
#### **General Obligation Bonds versus Special Indebtedness**

Prior to 2001, the State issued only GO debt. Such debt is usually considered to be the highest quality of all the various types of debt or debt-like instruments and usually carries the highest credit rating. Several factors contribute to the high rating including the legal protections inherent in constitutionally permitted debt, investor confidence in the pledge of the full faith and credit of the State and the presumption of the availability of the government's full resources. GO bonds are generally the most transparent of the various types of State debt obligations and typically carry the lowest interest cost. The State is in the process of fully utilizing its capacity to issue non-voter approved GO debt (approximately \$488 million) as authorized by the General Assembly.

Special Indebtedness (as defined in G.S. §142-82), is a relatively recent financing vehicle employed by the State. Sometimes secured by a specific stream of revenues, a lease payment or financing agreement (and sometimes by a security interest in the project being financed), or totally unsecured, such obligations are paid from annual appropriated amounts for debt service. Depending upon the credit and structure, appropriation-supported debt is usually assessed an interest rate penalty ranging from 5 to 20 basis points when compared with the State's GO bonds. Although modest, the interest rate penalty does increase the cost of the projects being financed. Most states have diversified their debt portfolios and utilize one or more of the various types of non-GO structures. However, the State of North Carolina has relied extensively on authorizing this type of financing since 2000.

The amount of the State's historic and projected outstanding appropriation-supported debt is shown below in Chart 5, with the percentage of appropriation-supported debt to total debt noted.

Chart 5



Note: % of Total Outstanding Debt includes debt funded by the Highway and the Highway Trust Fund.

In December 2006, Fitch published a report analyzing the amount of non-GO debt by all 50 states. They found that the higher-rated states tend to have the highest amount of GO debt relative to their total debt positions. For example, for "triple A" states, the median ratio of GO debt to total tax-supported debt was 74%, while the ratio for all "double A" states (without modifiers) was 70%. Conversely, the ratio of special indebtedness to total debt was 26% and 30% for "triple A" and "double A" states respectively. The State of North Carolina's debt is currently in the range of the medians reported for the "triple A" states. However, including all authorized but unissued debt, the percentage of non-GO debt is projected to increase well beyond the medians for "triple A" states and exceed the median for "double A" states as well.

The Committee therefore recommends that the State consider the authorization of GO debt as the preferred method to provide debt financing.

#### **Review of State Credit Ratings and Comparative Ratios**

Credit ratings are the rating agencies' assessment of a governmental entity's ability and willingness to repay debt on a timely basis. As a barometer of financial stress, credit ratings are an important factor in the public credit markets and can influence interest rates a borrower must pay.

#### Chart 6

#### **North Carolina Credit Rating Matrix**

## State of North Carolina General Obligation Bond Credit Ratings

Rating Agency	Rating	Outlook
Fitch Ratings	AAA	Stable
Moody's Investors Service	Aaa	Stable
Standard & Poor's Rating Services	AAA	Stable
-		

The State's general obligation bonds are rated AAA with a "stable" outlook by Fitch, AAA with a "stable" outlook by Standard & Poor's Ratings Services and Aaa by Moody's Investors Service with a "stable" outlook. These ratings are the highest ratings attainable from all three rating agencies.

#### **Comparison of Debt Ratios to Selected Medians**

A comparison to peer group medians is helpful because absolute values are more useful with a basis for comparison. In addition, the rating agencies combine General Fund and Transportation tax-supported debt in their comparative analysis. The primary source for this information is Moody's 2009 State Debt Medians and Standard & Poor's 2009 State Debt Review. These publications incorporate FY 2008 year-end data.

How North Carolina compares with its peers for the three debt ratios evaluated is presented below. The peer group is composed of states rated "triple A" by all three credit rating agencies. As shown in Chart 7, the State's debt ratios are at or below the median levels for its peer group.

#### Chart 7

# General Fund North Carolina Comparative Debt Ratios \*

State	Ratings (Fitch/S&P/Moody's)	Debt to Personal Income	Debt per Capita	Total Debt Service as % of General Fund Expenditures
Delaware	AAA/AAA/Aaa	5.4%	\$2,128	5.2%
Georgia	AAA/AAA/Aaa	3.0%	984	5.3%
Maryland	AAA/AAA/Aaa	3.3%	1,507	4.3%
Missouri	AAA/AAA/Aaa	2.0%	670	3.0%
North Carolina	AAA/AAA/Aaa	2.5%	832	2.0%
Utah	AAA/AAA/Aaa	1.5%	447	3.9%
Virginia	AAA/AAA/Aaa	1.9%	782	3.4%
	Peer Group Median	2.5%	\$832	3.9%

Tax-Supported Debt Ratios			Tax-Supported
North Carolina	Debt to Personal Income	Debt per Capita	Debt Service as a % of DAAC  Revenues
2009 (Actual)	1.9%	\$643	3.75%
2010	1.9%	\$639	3.59%
2011	1.9%	\$663	3.70%
2012	1.9%	\$646	3.99%

Source: Moody's 2009 State Debt Medians, Standard & Poor's 2009 State Debt Review based on 2008 data.

North Carolina projections are based on February 1, 2010 DAAC Report.

#### General Fund Guidelines, Debt Affordability Model and Results

#### **General Fund Debt Capacity Recommendations**

The Committee has adopted targets and outside guidelines to analyze and/or serve as the basis of calculating the recommended amount of General Fund–supported debt that the State could prudently authorize and issue over the next 10 years. Each measure is discussed in more detail below.

- 1. Net Tax-Supported Debt Service as a percentage of General Tax Revenues should be targeted at no more than 4% and not exceed 4.75%;
- 2. Net Tax-Supported Debt as a percentage of Personal Income should be targeted at no more than 2.5% and not exceed 3.0%; and
- 3. The amount of debt to be retired over the next ten years should be targeted at no less than 55% and not decline below 50%.

## Net Tax-Supported Debt Service as a Percentage of General Tax Revenues (4% Target, 4.75 Ceiling)

The Committee has adopted the measure of annual debt service arising from net tax-supported debt as a percentage of general tax revenues as the basis to evaluate the State's existing and projected debt burden for the General Fund and as the basis for calculating how much addition debt the State can prudently incur. The Committee notes that policymakers control both variables that determine this ratio. In addition, the Committee believes that by measuring what portion of the State's resources is committed to debt-related fixed costs, this ratio is a measure of the State's budgetary flexibility and its ability to respond to economic downturns.

Because there is often a time lag, sometimes of multiple years, between when debt is authorized and when it is issued, the Committee determined that calculating the amount of debt that could be authorized and issued each and every year over the model horizon is a more useful management tool than a measure that assumes that all available debt capacity is utilized in the year in which it is available. In practice, the limit imposed by the year of the least capacity over the model horizon (FY 2012) drives the calculation process. Without assuming any new debt is authorized, the State will be virtually hit the 4% target (3.99%) in FY 2012.

#### **DAAC Revenues**

The model uses general tax revenues adjusted for one-time or non-recurring items plus certain investment income and miscellaneous revenues ("DAAC Revenues"). These revenue items are contained in the State's Comprehensive Annual Financial Report. Due to both the adoption of, and the scheduled expiration of sales and use tax increases and individual income and corporate income tax surcharges, the Committee has departed from its historic practice of assuming a conservative 3% average annual growth assumption for the revenues used in the model. The Office of State Budget and Management ("OSBM") has been consulted to provide actual projections through FY 2014 that incorporate the sunset of these taxes and surcharges. See Appendix A for more details on the specific revenue items utilized by the model and the revenue projections utilized throughout the model horizon.

#### Debt Used in the General Fund Model Calculation

The model uses a definition of net tax-supported debt that includes all outstanding and

authorized but unissued General Obligation Bonds, Special Indebtedness, Capital Lease Obligations, Installment/Equipment Leasing Obligations and any other such obligations that are owed to a third party over a predetermined schedule payable from General Fund tax revenues. Obligations of Component Units, Highway Fund debt actually paid from Highway Fund revenues and non tax-supported special indebtedness paid from non-general fund trust funds are excluded. Other self-supporting or non-tax supported debt such as revenue bonds and short term tax anticipation notes (if they are not supported by General Fund tax revenues) are also excluded from the definition of net tax-supported debt. Energy Performance Contracts are excluded if they are performing as expected (debt service paid from energy savings). Consistent with rating agency practice, Other Post Employment Benefits ("OPEB") liabilities are also excluded unless the State actually issues debt to fund such obligations. See Appendix A for further details.

#### **Debt Structuring Assumptions**

The following assumptions were used in this year's debt affordability model calculations:

- The interest rate on existing Variable Rate Debt will average 4%.
- The State has approximately \$488 million and \$1.4 billion of GO and non-GO authorized but unissued debt. This debt is assumed to be structured with a 20-year level principal profile and the interest cost is estimated to be 5% (GO) and 6% (non-GO).
- Incremental model debt will be structured with a fixed rate 20-year maturity, a 6% interest rate, and an overall level principal payment profile after the initial year.

#### **Model Solution**

Illustrated below is the actual amount of new tax-supported debt that could be authorized and issued, by year, and remain within the 4.0% target ratio. In addition, the amount that could be authorized and issued each and every year over the model horizon is presented (\$9.1 million).

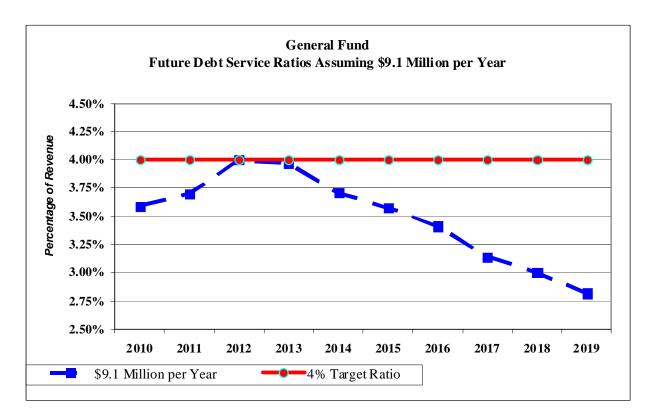
Table 4

General Fund Net Tax-Supported Debt Capacity using 4.0% debt service/revenues target ratio (In Millions of dollars)							
Fiscal Year	2010	2011	2012	2013	2014		
Total Additional Debt Capacity per Year *	\$18.1	\$0.0	\$90.9	\$626.4	\$361.1		
Debt Capacity Available Each and Every Year	\$9.1	\$9.1	\$9.1	\$9.1	\$9.1		

<sup>\*</sup> In addition to that already Authorized but Unissued. Assumes additional debt capacity is authorized and issued in stated fiscal year.

The model provides the annual figure as an optimized solution that answers the question "how much new debt could be authorized and issued in every year and not exceed the targeted guideline of 4%?" Graphically, that solution is illustrated below. Any authorization and issuance above \$9.1 in FY 2010 and 2011 will cause the State to violate the 4% parameter.

#### **Chart 8**



#### Sensitivity Analysis on 4% Target Solution

The model results are highly sensitive to changes in revenue and interest rate assumptions. Specifically, a one percent change, either up or down, in general tax revenues in each and every year of the model solution horizon will change the amount of annual debt capacity each and every year by approximately \$19 million. A variation in revenues of \$100 million per year will impact the amount of new debt that may be prudently issued each and every year by approximately \$9 million. If the interest rate assumption for all authorized but unissued non-GO debt is reduced to 5%, approximately \$44 million of additional annual capacity is created.

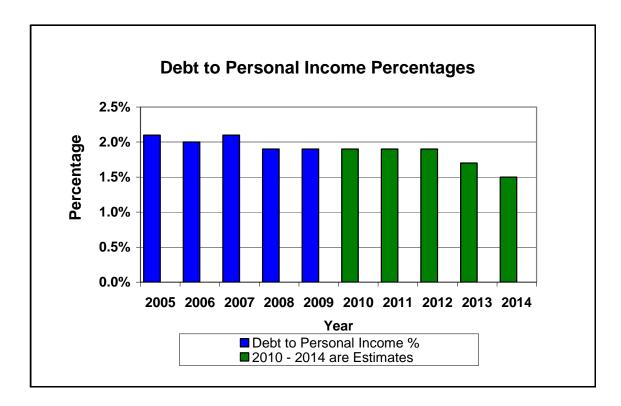
#### **General Fund Analysis – Other**

#### **Net Tax-Supported Debt to Personal Income (2.5% Target, 3% Ceiling)**

As required by statute, the Committee has also established guidelines for evaluating the State's debt burden as a measure of personal income.

The ratio of debt to personal income is projected to remain constant at 1.9% through FY 2012 and to decline thereafter. Chart 9 below shows that the amount of tax-supported debt as a percentage of personal income peaked in FY 2007.

Chart 9



Source: Population and Personal Income statistics provided by "Moody's Economy.com", courtesy of the North Carolina General Assembly Fiscal Research Division.

#### Ten-Year Payout Ratio (55% Target, 50% Minimum)

The rating agencies view the payout ratio as a measure of the period of time over which a State pays off its debt, as a credit factor. A fast payout ratio is a positive credit attribute as a measure of budgetary flexibility. As illustrated in Chart 10 below, the State's payout ratio has reached its targeted level and is projected to improve further. The ten-year payout ratio, which stood at approximately 55% at June 30, 2009, is projected to meet or exceed its target through the model horizon.

#### Chart 10



#### **Level of Unreserved Fund Balance**

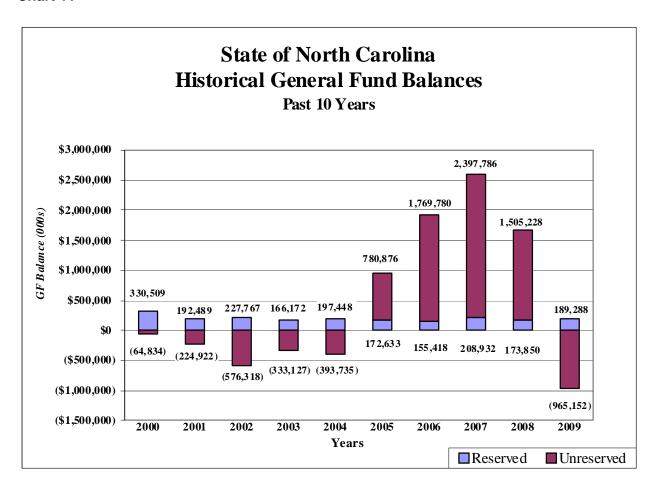
As discussed previously, the rating agencies place emphasis on budgetary reserves. In a report dated December 22, 2005, Standard & Poor's stated that "...reserves are critical to managing economic cycles and providing substantial flexibility to manage the budget and capital requirements of a government."

The State ended FY 2009 with a negative General Fund balance of approximately \$776 million as calculated under generally accepted accounting principals ("GAAP"). This represents a swing of approximately \$2,455 million from the prior year. The Rainy Day Fund was drawn down by approximately \$637 million over the fiscal year to provide funding for the State Health Plan and other unanticipated budgetary needs, ending the year with a balance of \$150 million. The Committee recognizes that the State has faced serious financial and budgetary pressures and needed to draw down reserves, use federal stimulus monies and enact temporary taxes in order to achieve budgetary balance. However, the Committee recommends that permanent sustainable solutions be devised to address the State's ongoing revenue needs and achieve long term

budgetary structural balance and that provides for the replenishment of the State's reserves, including the Rainy Day Fund, as quickly as possible.

Chart 11 depicts the State's historic General Fund Balance on a GAAP basis over the last ten years. The Rainy Day Fund is a budgetary reserve account and is not reported in the GAAP basis financial statements. The funds which make up the Rainy Day Fund are reported as part of the GAAP basis unreserved fund balance.

Chart 11



#### SECTION II TRANSPORTATION DEBT AFFORDABILITY

#### **Review of Transportation Funds, Debt and Other Commitments**

#### **Highway Fund**

The Highway Fund accounts for most of the activities of the Department of Transportation ("DOT"), including the construction and maintenance of the State's primary and secondary road systems. In addition, it supports areas such as the NC Ferry System and the Division of Motor Vehicles and provides revenue to municipalities for local street projects (termed "Powell Bill Transfers") and to other State agencies. The principal revenues are motor fuels taxes, motor vehicle registration fees, driver's license fees and federal aid.

#### **Highway Trust Fund**

The Highway Trust fund was established by Chapter 692 of the 1989 Session Laws to provide a dedicated funding mechanism to meet the State's highway construction needs. The Highway Trust Fund also provides allocations for secondary road construction, to municipalities for local street projects and provides transfers to both the General Fund and the Highway Fund. The principal revenues are highway use taxes, motor fuels taxes and various fees.

The Highway Fund and the Highway Trust Fund are in many ways managed as a combined entity. Certain transportation revenues are deposited in each fund on a formulaic basis. For example, the Highway Fund receives ¾ of the Motor Fuels Tax and the Highway Trust Fund receives the remaining ¼. However, various combined expenditures are routinely paid from one fund or another. For example, salary expenses associated with the management of the Highway Trust Fund are actually paid out of the Highway Fund and debt service on the existing Highway GO Bonds is paid from the Highway Trust Fund. Powell Bill transfers are made from both Funds. Due to the interdependent nature of these Funds, the Committee has determined that it is most useful to calculate the available debt capacities of these Funds ("Transportation Funds") on an aggregate, rather than individual, basis. The resulting debt capacity is termed the "Transportation" debt capacity.

On a combined basis, the Highway Fund and Highway Trust Fund are primarily involved with construction and maintenance of the State's highways. From total budgeted sources for FY 2009, the Transportation Funds allocated approximately 38.3% (\$1.5 billion) to Transportation Improvement Plan ("TIP") Construction, 24.5% (\$958 million) to Highway Maintenance and 4.5% (\$220 million) to Other Construction. In total, over 68% of the budget was dedicated to capital intensive infrastructure improvements.

#### **Highway Debt**

The State has a long history dating back to 1921 of authorizing debt to fund transportation projects. The most recent authorization of \$950 million of GO Bonds (the "1996 Bonds") was enacted in 1996 by Chapter 590 of the Session Laws of the 1995 General Assembly, as amended ("The State Highway Bond Act of 1996" or "the 1996 Act"). The 1996 Bonds authorized debt to finance the capital costs of urban loops (\$500 million, Intrastate System projects (\$300 million) and secondary highway system paving projects (\$150 million). All the Bonds authorized by the 1996 Act have been issued and as of June 30, 2008 the amount outstanding was \$648 million. These are the only Highway Bonds currently outstanding.

The 1996 Act stated the General Assembly's intention to pay the debt service on the Bonds from the Highway Trust Fund, but did not pledge the Highway Trust Fund revenues to make such payments. Although the Act contained amendments regarding the priorities of the payment of funds from the Highway Trust Fund to provide for the payment of debt service, *such funds are not pledged* to secure the Bonds. Instead, the bonds are secured by "the faith and credit and taxing power of the State". As such, the bond rating agencies did not analyze the ability of the Highway Trust Fund to service the debt when assigning their ratings.

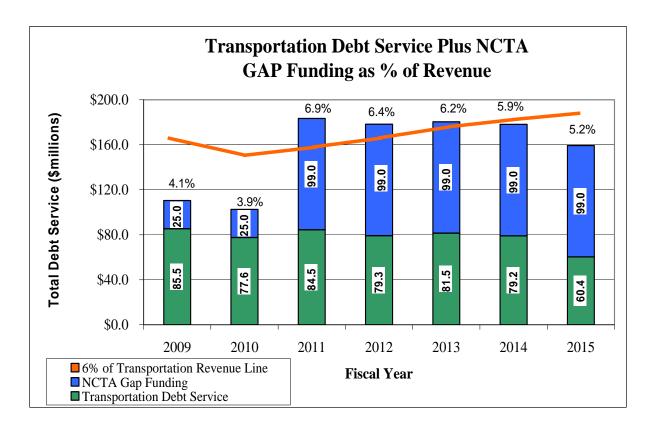
#### General Obligation Bonds versus Special Indebtedness-Transportation Implications

As discussed above, the State's outstanding Highway Bonds were issued as GO Bonds and are not secured by any Transportation revenues. As a result, the bonds were rated on a parity with the State's other GO Bonds. Therefore the Bonds were able to achieve the lowest possible interest rates, consistent with the State's high credit ratings. Potentially, the Bonds would not have been rated at the same level as the State's GO Bonds on a stand-alone basis. In addition, Bond Counsel has determined that any structure that pledged Transportation revenues consisting of state-wide taxes or user fees would most likely require a voter referendum. Therefore, the Committee advocates the use of GO Bonds for Transportation debt.

#### **Debt Service**

Debt Service on Highway Bonds peaked in FY 2006 at \$93.6 million. In the future, the amount of actual debt service will decline as outstanding Bonds are retired. Debt service, both on an absolute basis and as a percentage of Transportation revenues, is illustrated below. As discussed in more detail in Appendix B, appropriation of funds to support debt obligations issued by the North Carolina Turnpike Authority are treated the same as any other debt service obligation. Including those commitments causes the Transportation Debt Affordability limits to be exceeded in FYs 2011-2014 by approximately \$24, \$11 and \$5 million of debt service, respectively.

Chart 12



#### **Grant Anticipation Revenue Vehicle Bonds ("GARVEEs")**

A review of Transportation-related debt would be incomplete without a discussion of the State's GARVEE program. Although not supported by State Transportation or General Fund revenues and, therefore, not technically a part of the Transportation debt affordability model, GARVEEs do represent a financing vehicle that provides significant funds to the State to accelerate transportation projects.

North Carolina General Statute §136-18 (12b) as codified by Session Law 2005-403 ("the GARVEE Act") authorized the State to issue GARVEEs to accelerate the funding of transportation improvement projects across the State. GARVEEs are a revenue bond-type debt instrument where the debt service is to be paid solely from future federal transportation revenues and has no other State support. The State has issued two series of GARVEEs totaling \$530 million and the program is targeted to reach nearly \$1 billion over the next several years. The ratings assigned by Fitch, Standard & Poor's and Moody's are, respectively: AA-/AA-/Aa3, two steps lower than the State's typical non-GO debt ratings. The lower rating reflects the absence of any State backing for the GARVEEs.

#### **Other Transportation Expenditures**

Consistent with its treatment for General Fund debt affordability, the Committee does not advocate including non-debt related Transportation obligations or commitments in the definition

of liabilities when measuring debt capacity. It is useful, however, to review the level of ongoing administrative and other recurring expenses/transfers when analyzing the level of flexibility in the Transportation Funds. Historically, the levels of these commitments are shown below both with and without debt service as a percentage of total Transportation Revenues, including federal revenues. On average, approximately 24% of the total Transportation revenues are allocated to administrative costs, transfers and debt service.

Chart 13

(\$ Dollars in Millions)												
(1)	2005	2006	<u>2007</u>	2008	2009							
Total Transportation Revenues <sup>(1)</sup>	\$3,650.1	\$3,787.5	\$3,800.6	\$3,852.1	\$3,829.8							
Administration (2)	\$220.1	\$240.5	\$255.6	\$254.4	\$249.3							
Powell Bill Transfers	135.3	136.8	137.9	158.1	145.0							
Transfers to Other State Agencies	239.1	244.3	255.2	287.8	278.4							
General Fund Transfers	242.5	252.6	57.5	172.7	147.5							
Expenditures excluding Debt Service	\$837.0	\$874.2	\$706.2	\$873.0	\$820.2							
% Total Transportation Revenues	23%	23%	19%	23%	21%							
Debt Service	<u>\$69.0</u>	<u>\$93.5</u>	<u>\$91.2</u>	<u>\$88.1</u>	<u>\$85.5</u>							
Total Expenditures	\$906.0	<b>\$967.7</b>	<b>\$797.4</b>	\$960.9	\$905.7							
% Expenditures/Revenues	25%	26%	21%	25%	24%							

#### **Comparative Transportation Ratios**

When viewed as a stand-alone enterprise, the State's transportation-related debt service as a percentage of State transportation revenues appears modest when compared with a peer group composed primarily of states in the Southeast region but also certain other states selected after consultation with DOT. Within the peer group, both Missouri and South Carolina utilize an approach that limits transportation debt separately from other state-level debt. In contrast, Georgia measures available debt capacity on a combined basis, but has dedicated a great deal of that capacity toward transportation priorities as shown in Chart 14 below. Finally, Tennessee does not issue state debt for transportation purposes.

Chart 14

State	Ratings (Fitch/S&P/Moody's)	2006 Transportation Debt Service as % of Transportation Revenues <sup>(1)</sup>	Typical Maturity / Years
Florida	AA+/AAA/Aa1	6.0%	20
Georgia (2)	AAA/AAA/Aaa	21.0%	20
Kentucky	AA-/AA-/Aa2	12.1%	20
Missouri	AAA/AAA/Aaa	6.7%	20
North Carolina	AAA/AAA/Aaa	3.4%	20
South Carolina	AAA/AA+/Aaa	10.8%	15
Tennessee	AA+/AA+/Aa1	0.0%	N/A
Texas	AA+/AA/Aa1	5.9%	20
Virginia	AAA/AAA/Aaa	3.8%	25
Median		6.0%	
Average		7.75%	

### Transportation Debt Guidelines, Affordability Model and Results

The rating agencies view all debt supported by state-wide, generally applied taxes and/or user fees to be "Tax-Supported Debt". This combined treatment extends to all General Fund-supported, and to Highway Fund and Highway Trust Fund-supported ("Transportation Fund" – supported) debt. Some analysts apply the same treatment to debt supported by non-State revenues such as GARVEE bonds. The Committee recognizes that the rating agencies compare the State to its peers utilizing a broad measure of Transportation and General Fund debt, and has reviewed the State's relative status on this basis (see Chart 7).

However, the State of North Carolina has a long history of viewing the debt supported by the General Fund as tax-supported debt and its Highway Bonds as being non-tax supported (in this case, Highway Trust Fund-supported) debt. The State's existing debt affordability model excludes both transportation revenues and transportation debt service as components of the General Fund calculation. Continuing this practice, the Committee has determined that it should adopt a measure of Highway Fund and Highway Trust Fund debt capacity that is separate and distinct from that calculated for the General Fund. Although not common, this practice has been discussed with the rating agencies who understand North Carolina's incremental and separate approach to debt affordability measurement.

The Committee also recognizes the inherent differences between the General Fund and the Transportation Funds, not only in terms of the revenue streams, but also in terms of the commitments on those revenues. In addition, the State's transportation "enterprise" is, by its nature, a long-lived, capital intensive, rapidly growing program. As such, a customized individual debt capacity model is appropriate to measure the debt capacities of the Transportation Funds. Finally, the Committee believes that an individual Transportation debt capacity calculation is consistent with the legislative intent of S.L. 2007-551.

Due to the interdependent nature of the Highway and Highway Trust Funds as discussed earlier, the Committee has determined that it is more useful to calculate the available debt capacities of these Funds on an aggregate, rather than individual, basis. The resulting debt capacity is termed the "Transportation" debt capacity.

The Debt Affordability Advisory Committee has adopted the ratio of annual transportation-related debt service as a percentage of State transportation revenues as the measure to evaluate the level of Transportation debt capacity. By measuring what portion of the State's transportation resources is committed to debt-related fixed costs, this ratio reflects the flexibility (or lack thereof) to allocate transportation resources to other priorities.

#### **Revenues Used in the Transportation Model Calculation**

The model uses a definition of State transportation revenues that includes an aggregate of all State-level revenues deposited into the Highway Fund and the Highway Trust Fund including the motor fuels tax, highway use tax, motor vehicle license tax and certain non-tax revenue such as investment income. Consistent with the model mechanics for the General Fund, there is no deduction for projected transfers to the General Fund, Powell Bill transfers or other non-debt commitments. Federal transportation revenues are specifically excluded from the definition of revenues used to calculate Transportation debt capacity as federal revenues have been pledged to the State's GARVEE program and are not available to back other transportation-related debt.

#### **Debt Used in the Transportation Model Calculation**

The model uses a definition of State transportation debt service that includes outstanding Highway GO Bonds but excludes the GARVEEs supported by federal revenues. There are currently no capital lease or installment purchase contracts that need to be included. Highway Trust Fund support for debt issued by the North Carolina Turnpike Authority is included as a liability for model purposes.

#### **Debt Structuring Assumptions**

The following assumptions were used in this year's debt affordability model calculations:

- There is no remaining authorized but unissued GO or non-GO debt.
- Incremental model debt will be structured with a fixed rate 25-year maturity, a 6.15% interest rate and an overall level debt service profile after the first year.

It is the Committee's determination that a 25-year structure, with a correspondingly higher interest rate, can be justified for analyzing debt that will be used to finance long-lived transportation infrastructure projects. The Committee notes that Virginia also utilizes a 25 year structure for transportation debt.

#### **Transportation Debt Capacity Guidelines**

The Committee has adopted a guideline of 6% for transportation-related debt service as a percentage of state transportation revenues. In doing so, the Committee determined that the Transportation Funds enjoy a greater degree of budgetary flexibility than does the General Fund, and the Committee determined that the State's Transportation funds could support a higher ongoing level of debt service as a percentage of revenues than was deemed appropriate for the General Fund. However, the Committee also determined not to adopt the same 15% guideline for Transportation debt capacity as was contained in the GARVEE legislation because GARVEEs have higher annual debt service requirements due to their shorter maturity. Primarily due to the appropriation of substantial funds to support debt to be issued by the North Carolina Turnpike Authority, the model does not project any available Transportation debt capacity until FY 2013.

Table 5

Transportation Net Tax-Supported Debt Capacity using 6.0% debt service/revenues target ratio (In Millions of dollars)										
Fiscal Year	2010	2011	2012	2013	2014					
Total Additional Debt Capacity per Year *	\$0.0	\$0.0	\$0.0	\$21.4	\$298.6					
Debt Capacity Available Each and Every Year	N/A	N/A	N/A	N/A	N/A					

#### Model Assumptions regarding Revenue Growth and Sensitivity Analysis

The model uses NCDOT estimates for the revenues over the model horizon (see Appendix B). Transportation revenues would need to exceed projections in FY 2011 and FY 2012 by approximately \$400 million and \$190 million, respectively, to generate any Transportation debt capacity prior to FY 2013.

#### **SECTION III**

#### **Transportation and General Fund Ratios Combined**

The Committee adopted the 6% Transportation guideline after analyzing the State's position relative to its peer group on a combined (General Fund and Transportation Funds) basis. As stated previously, the rating agencies also analyze the State's debt on an aggregate basis. Illustrated below is how the State appears on a combined basis utilizing existing debt service as a percentage of revenue percentages for both the General Fund and the Transportation Funds. The Committee notes that the combined ratios exceed the 4% target, but are well below the 4.75% ceiling. Depending upon the reactions by the rating agencies and financial markets, the Committee may choose to revisit the 6% guideline for Transportation Debt in the future.

Table 6

## **General Fund and Transportation Funds Combined Debt Service / Revenue Percentages**

Fiscal Year	2010	2011	2012	2013	2014
General Fund	3.59%	3.70%	3.99%	3.95%	3.69%
Transportation *	3.92%	6.90%	6.41%	6.17%	5.94%
Combined	3.63%	4.09%	4.30%	4.24%	3.98%

Note: Percentages are based on forecasted revenues and debt service.

<sup>\*</sup> GAP Funding for North Carolina Turnpike Authority projects assumed to reach \$99 million in FY 2011 and thereafter.

#### Appendix A

## General Fund Revenues and Liabilities and Debt Affordability Model 10-Year Solutions

#### **DAAC Revenues**

The model uses general tax revenues adjusted for one-time or non-recurring items plus certain other revenue items deemed available to service debt from the most recently available *Comprehensive Annual Financial Report.* The following items are included:

#### General Fund Tax Revenues

- Individual Income Tax
- Corporate Income Tax
- Sales & Use Tax
- Franchise Tax
- Insurance Tax
- Beverage Tax
- Inheritance Tax
- Other Taxes

#### Other General Fund Revenue Items

- Investment Income
- Miscellaneous Revenues

#### Revenue Growth and other Assumptions

Changes to revenue estimates have a significant impact on the calculation of available debt capacity because of the multiplier effect of compounding growth over the ten-year period. Such projections are especially important when they reflect changing or differing economic outlooks.

In consultation with OSBM, DAAC revenue projections are assumed to be as follows:

Table 7

#### **General Fund Revenue (\$ millions)**

	Revenues		Revenues
Fiscal Year	(\$ millions)	Fiscal Year	(\$ millions)
2009	\$16,812.6	2015	\$21,514.0
2010	18,350.0	2016	22,159.4
2011	19,106.8	2017	22,824.2
2012	18,893.8	2018	23,509.0
1013	19,890.8	2019	24,214.2
2014	20,887.4	2020	24,940.6

<sup>\*</sup> Revenues through Fiscal Year 2014 per OSB. Fiscal Years 2015 - 2020 assume a 3% growth rate.

#### **Liabilities**

To calculate net tax-supported debt, credit analysts take into account all debt supported by general tax revenues. This debt position shows the amount of indebtedness serviced from an issuer's General Fund; that is, it reflects the debt service payments made directly from tax revenues and is known as net tax-supported debt. Although a consensus appears to exist among credit analysts as to the appropriateness of using net tax-supported debt as the standard for determining an issuer's debt position, there is less unanimity about the precise calculation. The Committee has determined to exclude self-supporting debt from its calculations.

The model uses a definition of net tax-supported debt that includes GO Bonds, Special Indebtedness, Capital Lease Obligations, and any other obligations that are owed to a third party over a predetermined schedule and paid from General Fund Revenues. Should mandatory payments be due to contractors or others under "Public Private" or "Design/Build/Finance" or other such arrangements, those payments would be counted as a liability for the model. Obligations of Component Units, Highway Fund debt that is paid from Highway Fund revenues, non tax-supported special indebtedness that is paid from trust funds and other self-supporting debt is excluded. Energy Performance Contract liabilities are also excluded.

#### Other Post Employment Benefits ("OPEB")

In order to comply with Governmental Accounting Standards Board (GASB) Statements No. 43 and 45, the State Health Plan had an actuarial study completed that estimates the size of the State's unfunded liability for Other Post Employment Benefits. The bond rating agencies have been clear that OPEB liabilities do not represent a hard liability in the same way that debt service does and should not be considered tax-supported debt unless bonds are actually issued to fund part or all of the liability. They have also consistently assured the State that these liabilities do not represent a threat to the State's credit rating in the short-term. Over the longer term, the State will need to develop a realistic plan to meet these obligations.

The model includes the actual debt service from all outstanding net tax-supported debt and for all authorized, but currently unissued tax-supported debt if such issuance does not require further action on the part of the General Assembly.

The following is a list of those liabilities that are included in the General Fund model (outstanding amounts as of June 30, 2009):

- General Obligation Bonds supported by General Fund Tax Revenue \$4.6 billion
- supported by General Funds
  - o Limited Obligation Bonds \$441.8 million
  - o Certificates of Participation- \$712.1 million, which includes
    - Chapter 1264 projects supported by the Clean Water, Natural Heritage and Parks and Recreation Trust Funds where funds flow through the General Fund - \$51.8 million
  - o Capital Leases, Installment Purchase Contracts and Equipment lease obligations determined pursuant to G.S. 147-33.72H \$51.8 million
  - o Lease Revenue or Lease-Purchase Revenue Bonds \$225.1 million

Liabilities not included in the General Fund model (outstanding amounts as of June 30, 2009):

- Highway Construction General Obligation Debt supported by separate taxes \$593.9 million
- Special Indebtedness (collectively appropriation-supported obligations)
  - o Certificates of Participation supported by non-General Funds including
    - Chapter 1264 projects supported by the Health and Wellness/Tobacco Trust Funds \$365.7 million (issued), \$58.6 (authorized but unissued)
- Short Term Tax Anticipation Notes (not supported by General Tax Revenue) \$0.
- Obligations of the University of North Carolina System, the North Carolina Housing Finance Agency or other Component Units \$8.6 billion
- Energy Performance Contract obligations where such obligations are guaranteed and approved pursuant to G.S. 142-64 and not supported by separate appropriations \$32.2 (issued)
- Other Post Employment Benefits ("OPEB")

Note: Although these liabilities do not constitute tax-supported debt, they are obligations of the State of North Carolina or various component units, and the State's General Fund, although not legally obligated to, could be called upon to service these obligations if necessary.

#### **Debt Structuring Assumptions**

The following assumptions were used in this year's debt affordability model calculations:

- The rate on existing Variable Rate Debt will average 4%.
- The State has approximately \$488 million and \$1.4 billion of GO and non-GO authorized but unissued debt. This debt is assumed to be structured with a 20-year level principal profile and the interest cost is estimated to be 5% (GO) and 6% (non-GO).
- Incremental model debt will be structured with a fixed rate 20-year maturity, a 6% interest rate, and an overall level principal payment profile after the initial year.

#### **GAAP Unreserved General Fund Balance**

The State's GAAP basis Unreserved General Fund Balance ("UGFB") is comprised both of Designated and Undesignated items. Designated items are those for which tentative plans for use in a future period have been established by the General Assembly. Examples include the Disaster Relief Fund and Repairs and Renovation Fund. Of the total UGFB of a negative \$965.1 million at Fiscal Year end 2009, Designations totaled \$189.3 million, bringing the total Reserved and Unreserved General Fund balance to a negative \$775.9 million. The State's Rainy Day Fund is a budgetary reserve account which is not reported in the GAAP basis financial statements of the State. The funds which make up this account are reported as part of the GAAP Undesignated balance.

#### **General Fund**

#### 10-Year Model Solutions

#### 4% Debt Service/Revenue Target

Table 8

# General Fund Net Tax-Supported Debt Capacity using 4.0% debt service/revenues target ratio (In Millions of dollars)

Fiscal Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Additional Debt Capacity per Year <sup>1</sup>	\$18.1	\$0.0	\$90.9	\$626.4	\$361.1	\$448.5	\$765.3	\$456.5	\$597.5	\$958.5
Debt Capacity Available each and every Year	\$9.1	\$9.1	\$9.1	\$9.1	\$9.1	\$9.1	\$9.1	\$9.1	\$9.1	\$9.1

<sup>\*</sup> In addition to that already Authorized but Unissued. Assumes additional debt capacity is authorized and issued in stated fiscal year.

#### 4.75% Debt Service/Revenue Target

Table 9

# General Fund Net Tax-Supported Debt Capacity using 4.75% debt service/revenues target ratio (In Millions of dollars)

Fiscal Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Additional Debt Capacity per Year <sup>1</sup>	\$1,643.5	\$0.0	\$176.7	\$712.1	\$414.9	\$504.0	\$822.5	\$515.4	\$658.2	\$1,021.0
Debt Capacity Available each and every Year	\$575.0	\$575.0	\$575.0	\$575.0	\$575.0	\$575.0	\$575.0	\$575.0	\$575.0	\$575.0

<sup>\*</sup> In addition to that already Authorized but Unissued. Assumes additional debt capacity is authorized and issued in stated fiscal year.

#### Appendix B

#### Transportation Revenues and Liabilities and Debt Affordability Model 10-Year Solutions

The Transportation debt affordability model uses all state transportation revenues plus other revenue items deemed available to service debt for the most recent Fiscal Year. The following items are included:

#### **State Transportation Revenues**

- Motor Fuels Tax
- Highway Use Tax
- Motor Vehicle Revenues
  - Vehicle registration and title fees
  - o Driver's license fees
  - o International registration plan fees
  - o Penalties
  - o Equipment inspection fees
  - o Other
- Investment Income
- Other misc.
- Federal Transportation Revenues are excluded

#### Revenue Growth

Changes to revenue estimates have a significant impact on the calculation of available debt capacity. In consultation with NCDOT, Transportation Revenue projections are assumed to be as follows:

Table 10

#### **Transportation Revenues (\$ millions)**

	Revenues		Revenues
Fiscal Year	(\$ millions)	Fiscal Year	(\$ millions)
2009	\$2,720.0	2015	\$3,079.3
2010	2,617.9	2016	3,133.9
2011	2,660.6	2017	3,165.0
2012	2,782.3	2018	3,173.9
2013	2,927.0	2019	3,213.7
2014	2,998.8	2020	3,235.5

<sup>\*</sup> Revenue amounts per NC Department of Transportation (excluding federal revenues)

#### **Transportation Liabilities**

The model uses the debt service from all outstanding Highway Bonds and would include transportation-related capital lease obligations and installment purchase contracts if appropriate. There is no currently authorized but unissued transportation-related debt to include, but the model would count such debt and the resulting debt service as part of Transportation Liabilities if there were. At 6/30/09, there were \$594 million outstanding Highway Bonds and maximum Highway related debt service peaked at \$93.6 million in FY 2006.

Debt Service arising from the State's GARVEE program is not included as a State Transportation Liability because the GARVEEs are supported solely by federal transportation revenues.

In 2008, "GAP" funding was authorized by S.L. 2008-201 to "pay debt service or related financing costs" for revenue bonds issued by the North Carolina Turnpike Authority. The funds so appropriated are all legally pledged to support the bonds and bondholders will depend upon the appropriation continuing. Therefore, the model treats the gap funding as the equivalent of debt service since it represents ongoing Highway Trust Fund support of debt. \$25 million of GAP funding is treated as debt service for FY 2010 and \$99 million in FY 2011 and beyond over the 10-year model horizon. This represents a delay of one year for funds authorized to support the Mid Currituck and Monroe Connector projects. NCDOT has also pledged certain operating and maintenance funds to secure debt, if necessary to provide adequate coverage levels. At the present, it appears that such funding will not be required. However, these funds would be treated as additional GAP Funding for model purposes if NCDOT was required to make such payments. Note that Debt Issuing Assumptions

Debt-like obligations including mandatory "availability payments" to contractors or others which represent liabilities payable under Public Private, Design/Build/Finance and/or other arrangements with have debt or debt-like characteristics count as a liability for purposes of the model. Currently there are no such obligations outstanding.

This year's Transportation debt affordability model assumes that model debt is fixed-rate 25-year maturity debt with an average interest cost of 6.15% and a level debt service profile after the first year.

### **Transportation**

#### **10-Year Model Solution**

Table 11

# Transportation Net Tax-Supported Debt Capacity using 6.0% debt service/revenues target ratio (In Millions of dollars)

Fiscal Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Additional Debt Capacity per Year <sup>1</sup>	\$0.0	\$0.0	\$0.0	\$21.4	\$298.6	\$53.5	\$0.0	\$55.8	\$0.0	\$0.0
Debt Capacity Available each and every Year	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

<sup>\*</sup> In addition to that already Authorized but Unissued. Assumes additional debt capacity is authorized and issued in stated fiscal year.