William F. Dwyer
STATE TREASURER

THE STATE OF NEW HAMPSHIRE
STATE TREASURY
25 CAPITOL STREET, ROOM 121
CONCORD, N.H. 03301
603-271-2621
FAX 603-271-3922
E-mail: bdwyer@treasury.state.nh.us
TDD Access: Relay NH 1-800-735-2964

February 23, 2016

Honorable Chuck Morse
President of the Senate
Honorable Shawn Jasper
Speaker of the House

Dear President Morse and Speaker Jasper:

Attached is a copy of the debt affordability study for fiscal year 2015 prepared by the State Treasury and Public Resources Advisory Group, the State's financial advisor. In developing this year's study we have examined the impact of debt issuance, changes to statute, and economic projections on the State's net tax-supported debt ratios. Please note that this study focuses on net tax-supported (unrestricted General Fund) debt outstanding and does not consider debt funded with Highway Funds or other self-supporting debt with a dedicated revenue source.

The Base Case presented on page 3 of the study recommends maintaining the level of bonding levels authorized for the current biennium, followed by a reduction of $5 million in biennial capital project General Obligation bonding beginning with the 2020-21 biennium. Therefore this analysis continues the recommendations made in the study prepared last year by proposing the following biennial authorizations: 2018-19 ($125 million), 2020-21 ($120 million), and 2022-23 ($120 million). Based on strong recent General Fund unrestricted revenue performance, both in fiscal year 2015 versus 2014 (+5.7%), as well as fiscal year-to-date 2016, I have also adjusted the Base Case annual revenue growth rate to 2.0% for fiscal years 2017 through 2022, a modest increase from the 1.4% assumption used in last year's study but still lower than the 2.5% growth rate assumed in recent years.

The recommended amounts of new net General Fund debt in fiscal years 2017 through 2022 would include any new authorizations for capital needs to be bonded and paid from General Fund unrestricted revenues. Also reflected in the attached analysis are the continued effect of the issuance of $131 million in school building aid debt in fiscal years 2010 and 2011 and the re-characterization of Medicaid Enhancement Tax revenue from unrestricted to restricted, pursuant to the State's settlement with hospitals and care providers as provided in 2014 SB 369.

One notable consideration in the biennial bonding authorizations recommended above is the pledging of the incremental revenue generated by the 2014 SB 367 road toll increase for the purpose of entering into the $200 million federal Transportation Infrastructure Innovation and Financing Act program (TIFIA), as authorized in the 2015 HB 2 amendment to RSA 6:13-d, I. As a result of this revenue pledge, the State Treasury is less concerned than one year ago regarding the risk of a repeal of the 2014 road toll increase and its potential impact on overall net tax-supported debt levels.

Sensitivity 1, found on page 10 of the appendix, assumes the same debt issuance as in the base case but assumes a flat revenue forecast for the period. The purpose of this alternative scenario is to examine how flat revenue performance might impact the State's borrowing capacity. Sensitivity 2 on page 12 of the appendix assumes the same debt issuance and revenue growth assumed in the base case but increases the interest rate by one percentage point. Both of these sensitivity analyses project that the State's debt service to revenue ratio is expected to remain below 8% after fiscal year 2016, well below the 10% statutorily prescribed limit and rating agency warning level. However it is worth noting that from 2000 to 2010 the debt service ratio averaged 6.13%, a level that the Base Case nearly reaches by 2022 using modestly declining net tax-supported debt authorization recommendations.

Lastly, we have presented on page 13 a final scenario to highlight the impact of state guaranteed bonds combined with flat revenue growth. In the very worst case (and unlikely) scenario under which the State would be required to assume all guarantee liabilities in a stagnant revenue environment, the debt service to revenue ratio nearly reaches the 9% level in 2019 and 2020. The debt affordability ratios are clearly impacted by including guaranteed debt in the analysis, but this is worth considering for credit rating purposes. While somewhat difficult to evaluate from a fundamental credit risk standpoint, the level of guaranteed debt does not presently impact the State's credit rating, in part reflecting the prior success of State guarantee programs.

The general funded debt service to unrestricted General Fund revenues ratio is the metric most closely monitored by policymakers and the rating agencies as the best barometer of debt affordability levels. This analysis indicates that the State's debt service to unrestricted revenue ratio, while inflated above recent historical levels (2000-2010), remains manageable under the Base Case scenario, while projecting to trend back toward recent historical lows using the recommendations provided here.

I am available to discuss this analysis in more detail with you at any time.

Respectfully,

William F. Dwyer
State Treasurer

Attachments

Cc:
Honorable Margaret Wood Hassan, Governor
Representative Neal Kurk, Chair, House Finance Committee
Representative Gene Chandler, Chair, House Public Works and Highways
Senator Jeanie Forrester, Chair, Senate Finance Committee
Senator Gary Daniels, Chair, Senate Capital Budget Committee
Vicki Quiram, Commissioner, Department of Administrative Services
Michael Kane, Legislative Budget Assistant

Public Resources Advisory Group

39 Broadway, Suite 1210 ■ New York, New York 10006-2908 ■ (212) 566-7800

MEMORANDUM TO: The Honorable William Dwyer
Treasurer
State of New Hampshire

FROM: Public Resources Advisory Group ("PRAG")

SUBJECT: Debt Affordability Study Update

DATE: February 23, 2016

As requested, we have updated the debt affordability study for the State of New Hampshire. This study analyzes only net General Fund debt outstanding at June 30, 2015. The School Building Aid bonds are included in the study. The rating agencies opine that the State has "manageable debt levels with debt ratios well below Moody's 50-state medians" (Moody's Investors Service report dated December 5, 2014), "The state's tax-supported debt is moderate" (Standard & Poor's report dated October 9, 2015) and "debt structure is conservative with low debt levels, rapid amortization" (Fitch Ratings report dated December 8, 2014). Thus, the credit agencies recognize the State's fiscal prudence in regard to debt.

In this debt affordability study update, the term "Sensitivities" refers to the changes in assumptions related to General Fund unrestricted revenue growth and increased borrowing costs (Sensitivity 1 and 2, respectively). The term "Cases" refers to alternate scenarios in the event that the State is required to take on debt guarantees, as presented on pages 4 and 5 of this update.

Assumptions

The following assumptions were used in preparing the base case analysis that projects the State's future debt ratios:

1. No general obligation debt issued in FY 2016.

2. $62.5 million of tax-exempt general obligation debt to be issued in each of fiscal years 2017 through 2019 and $60 million in each of fiscal years 2020 through 2022. Each issue is assumed to be amortized over 20 years and carry an interest rate of 5.00%, with 60% of principal amortized in equal annual installments over the first ten years and 40% in equal annual installments over the remaining ten years. Future net tax-supported GO debt issuance includes the biennial authorizations for the University System of New Hampshire, however this analysis does not attempt to separately estimate specific USNH authorization amounts for fiscal years 2017 through 2022.

3. General Fund Unrestricted Revenues reflect actual revenues for fiscal year 2015 with the portion of meals and room tax revenues designated for the debt service of school building aid included and an average annual growth of 2.0% in fiscal years 2016 through 2022.

4. Total personal income is based on 2014 figure of $70,020 million and is projected to grow at an average annual rate of 3.6%.

5. Population is based on 2014 figure of 1,326,813 and is projected to grow at an average annual rate of 0.2% per year.

We have also projected the State's debt ratios including certain State guaranteed debt. In doing so, we have made the following assumptions:

1. State guaranteed debt consists of debt issued for local Superfund sites, Business Finance Authority ("BFA"), and Pease Development Authority ("PDA"). The analysis excludes State guaranteed debt issued for water pollution control, local schools and local landfills, and Division of Water Resources (program eliminated).

2. Future issuances of State guaranteed debt are assumed to be as follows:

Expected Issuances of State Guaranteed Debt

Fiscal Year	Dollar Amount	Purpose
2017	$34,420,000	Superfund, BFA, Pease
2018	34,420,000	Superfund, BFA, Pease
2019	34,320,000	Superfund, BFA, Pease
2020	11,420,000	BFA
2021	11,420,000	BFA

3. New State guaranteed debt is assumed to be taxable with level debt service over 20 years at an average interest rate of 6.00%.

4. An analysis of each case is contained in the Appendix to this report.

Effect of General Obligation Debt Issuance on Debt Ratios

The Base Case (page 3 of the Appendix) shows the effect on the State's debt ratios, based on the above assumptions including the issuance of $62.5 million of tax-exempt general obligation debt in each of fiscal years 2017 through 2019 and $60.0 million in each of fiscal years 2020 through 2022. Combining these issuances and repayments of outstanding debt, the total issuance is approximately $160 million less than retirements over the fiscal years 2016 through 2022, causing the State's net general fund debt to decrease from $768.254 million at June 30, 2015 to $608.373 million at June 30, 2022, a total decrease of $160 million or 20.8%.

Presently, New Hampshire's ratios of debt to personal income and debt per capita are significantly below the 2015 Moody's medians for states. New Hampshire's net general fund debt service to revenues ratio at 8.2% for fiscal year 2015 was higher than the median of 5.3% but well below the level that credit analysts use as a warning sign of excessive debt service burden of 10.0%, which is also the State's statutorily prescribed limit (RSA 6-C:2). By issuing general obligation debt over the projected period in the amounts identified above, New Hampshire's debt ratios would remain well under the 2015 Moody's medians for states except for the debt service to revenues ratio, as summarized in the following chart:

Summary of Debt Ratios for Net General Fund Debt

	Moody's Median	New Hampshire	
	2015	June 30, 2015	June 30, 2022 Est.
Debt to Personal Income	2.5%	1.1%	0.7%
Debt Per Capita	$1,012	$578	$451
Debt Service to Revenues	5.3%*	8.2%	6.3%

* Ten percent is rule of thumb used by rating agency analysts as a warning level that should not be exceeded, as a greater relative amount would place too heavy a fixed cost burden on the budget, thereby limiting fiscal flexibility.

As can be seen, the ratio of debt service to revenues is projected to decrease to 6.3% at June 30, 2022. Debt to personal income would decline over the period, from 1.1% at June 30, 2015 to 0.7% at June 30, 2022 and debt per capita would decline from $578 to $451. These ratios relative to Moody's medians form the basis for an assessment of the weight of the State's debt position.

Sensitivity Analyses: Effects of Constant Revenues and Higher Interest Rates

Given the uncertainty regarding the economy and the markets, it is difficult to make forecasts. Accordingly, a sensitivity case for General Fund unrestricted revenues was developed, assuming no growth of revenues after fiscal year 2016. Under these assumptions, New Hampshire's debt ratios would change as summarized in the chart below:

Debt Ratios Assuming Constant Revenues After FY 2016

Summary of Debt Ratios for Net General Fund Debt

	Moody's Median	New Hampshire			
		Base Case		Constant Revenue Assumption	
	2015	FY 2015	FY 2022 Est.	FY 2015	FY 2022 Est.
Debt to Personal Income	2.5%	1.1%	0.7%	1.1%	0.7%
Debt Per Capita	$1,012	$578	$451	$578	$451
Debt Service to Revenues	5.3%*	8.2%	6.3%	8.2%	7.1%

With the constant revenue, the ratio of debt service to revenues would decrease from 8.2% for fiscal year 2015 to 7.1% for fiscal year 2022, compared to 6.3% in the Base Case. At the 7.1% level, this ratio would be still well below the 10.0% rule of thumb. Other ratios would not change since the amount of bonds issued would not change. (The details of this analysis are shown on pages 9-10 of the Appendix).

A second sensitivity analysis was developed with regard to different market rates. It assumes that tax-exempt interest rates increase by 100 basis points. The results are as follows:

Debt Ratios Assuming Increased Tax-Exempt Rates

Summary of Debt Ratios for Net General Fund Debt

	Moody's Median	New Hampshire			
		Base Case		1% Interest Rate Increase	
	2015	FY 2015	FY 2022 Est.	FY 2015	FY 2022 Est.
Debt to Personal Income	2.5%	1.1%	0.7%	1.1%	0.7%
Debt Per Capita	$1,012	$578	$451	$578	$451
Debt Service to Revenues	5.3%*	8.2%	6.3%	8.2%	6.5%

* Ten percent is a rule of thumb used by rating agency analysts as a warning level that should not be exceeded, as a greater relative amount would place too heavy a fixed cost burden on the budget, thereby limiting fiscal flexibility.

The ratio of debt service to revenues would decrease from 8.2% in fiscal year 2015 in the Base Case to 6.5% for fiscal year 2022, well below the 10% rule of thumb, although it would remain over 7.0% in fiscal years 2016 through 2020. Other ratios would not change since the amount of bonds issued would not change. (The details of this analysis are shown on pages 11 and 12 of the Appendix).

Effect of State Guarantees on Debt Ratios

Page 4 of the Appendix shows the effect of State guarantees on New Hampshire's debt ratios in the Base Case. For this analysis there was $84.2 million of outstanding guaranteed debt at June 30, 2015, which added to the State's net General Fund debt bringing the total to $852.5 million, as shown in the table below:

Net General Fund and Guaranteed Debt at June 30, 2015

	($ in millions)
Net General Fund Debt	$768.3
Guaranteed Debt	
Business Finance Authority	57.9
Qualified School Construction Bonds (QSCBs)	26.3
Total Guaranteed Debt	$84.2
Total Net General Fund and Guaranteed Debt	$852.5

There is approximately $126.0 million of authorized but unissued State guaranteed debt at June 30, 2015, as shown in the table below:

Authorized But Unissued State Guaranteed Debt at June 30, 2015

Purpose	Amount
	($ in millions)
Local Superfund Sites	$20.0
Business Finance Authority	57.1
Pease Development Authority	48.9
Total	**$126.0**

For this scenario, we assumed that: the Business Finance Authority would issue $11.42 million in each of fiscal years 2017 through 2021; Pease Development Authority would issue $16.3 million in each of fiscal years 2017 through 2019; and the Local Superfund would issue $6.7 million in each of fiscal years 2017 and 2018 and $6.6 million in fiscal year 2019.

The table below compares the ratios in three cases. The first case is the Base Case, without guaranteed debt. The second case (Case 2 in the table below), which is a more pessimistic scenario, shown on page 4 of the Appendix, includes all the outstanding and additional debt issuances for State guaranteed debt described above. In this second case, the State's exposure would reach approximately $777.0 million at June 30, 2022, which is $169.0 million more than the net General Fund debt expected to remain outstanding at that time (Base Case). The last "worst case" (Case 3 in the table below) scenario combines outstanding and additional issuances of State guaranteed debt with a flat revenue assumption (Sensitivity 1), shown in the Appendix on page 13. The resulting debt ratios are summarized in the chart below:

Summary of Debt Ratios Including State Guaranteed Debt

New Hampshire

				Including Guaranteed Debt			
	Moody's Median	Case 1 (Base Case) Net General Fund Debt		Case 2 All Guaranteed Debt		Case 3 All Guaranteed Debt and Flat Revenues	
	2015	FY 2015	FY 2022 Est.	FY 2015	FY 2022 Est.	FY 2015	FY 2022 Est.
Total Debt Outstanding (000,000)	—	$768	$608	$852	$777	$852	$777
Debt to Personal Income	2.5%	1.1%	0.7%	1.2%	0.8%	1.2%	0.8%
Debt Per Capita	$1,012	$578	$451	$641	$576	$641	$576
Debt Service to Revenues	5.3%*	8.2%	6.3%	8.8%	7.4%	8.8%	8.4%

*Ten percent is a rule of thumb used by rating agency analysts as a warning level that should not be exceeded, as a greater relative amount would place too heavy a fixed cost burden on the budget, thereby limiting fiscal flexibility.

As would be expected, all debt ratios rise as a result of additional State guaranteed debt issuances. At June 30, 2022, the State's debt to personal income would be 0.8% in Case 2 as opposed to 0.7% in the Base Case. Debt per capita would be $576 in Case 2 versus $451 in the Base Case; and debt service to revenues would be 7.4% compared to 6.3% in the Base Case while reaching 8.4% in fiscal years 2016 and 2019. With an assumption of no revenue growth added to Case 2, the "worst case" scenario, debt service to revenue ratio increases to 8.4% in fiscal year 2022 while reaching 8.9% in fiscal years 2019 and 2020. Debt per capita and debt to personal income ratio would remain below the 2015 Moody's medians in all cases.

Conclusion

The State's debt ratios are considered "manageable" to "low" by the rating agencies. If the State issues $367.5 million of net general obligation debt in fiscal years 2017 through 2022, as outlined above, the amount of debt outstanding would fall and the effect on the debt ratios would be as follows: debt to personal income would decrease from the current level of 1.1% to 0.7% at the end of fiscal year 2022; debt service to revenues would decrease from 8.2% to 6.3% at June 30, 2022; and debt per capita would decline from $578 to $451. At these levels, the debt ratios would remain "manageable", and would, in fact, improve.

Sensitivity analyses show that with constant revenues the debt service to revenue ratio would be 7.1% in fiscal year 2022, above the 6.3% level in the Base Case, and it would be 6.5% in the scenario with increased interest rates. At these levels, the debt service to revenue ratios in the two sensitivity cases would still be well below the warning level for excessive debt service burden of 10%.

When existing and additional State guaranteed debt are added to the Base Case scenario, debt to personal income is projected to decline from the fiscal year 2015 level of 1.2% to 0.8% in fiscal year 2022, debt per capita is projected to decrease from $641 in fiscal year 2015 to $576 in fiscal year 2022 and debt service to revenues ratio is forecast to decline from 8.8% in fiscal year 2015 to 7.4% in fiscal year 2022. Under the "worst case" scenario of zero General Fund unrestricted revenue growth and the addition of State guaranteed debt, the projected ratio of debt service to revenues would rise from the projected Base Case level of 6.3% in fiscal year 2022 to 8.4%.

The State's ratio of debt service to revenues remains above the Moody's median level and should be closely monitored so corrective actions can be taken if revenue growth falls below projections. This becomes particularly important if the 10% "warning level" is approached. At this time, however, there are no concerns, as this ratio is projected to decline over the projected period through fiscal year 2022 and to remain well below 10%.

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update

Appendix -- Analytic Summary

List of Exhibits	Page 1
Assumptions to Base Case	Page 2
Base Case Results	Page 3
Effect of State Guaranteed Bonds on Debt Ratios	Page 4
Debt Service on Outstanding General Obligation Debt	Page 5
Debt Service on Projected General Obligation Debt	Page 6
Estimated Debt Service on Outstanding State Guaranteed Debt	Page 7
Estimated Debt Service on State Guaranteed Debt to Be Issued	Page 8
Assumptions to Sensitivity Case 1 (Flat Revenues after FY 2016)	Page 9
Sensitivity Case 1 Results	Page 10
Assumptions to Sensitivity Case 2 (Interest Rates Increased)	Page 11
Sensitivity Case 2 Results	Page 12
"Worst Case" Scenario (General Fund, State Guaranteed Bonds and Flat Revenues)	Page 13

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Assumptions to Base Case - Issuance of $62.5 Million Annually in FY 2017-19 and $60 Million Annually in FY 2020-22
School Building Aid Bonds Included

(1) There is currently no GO debt issued in FY 2016.
(2) $62.5 million of current interest bonds issued annually in FY 2017 through 2019 and $60 million in FY 2020 through 2022 at an interest rate of 5%, with 60% of the principal amortized in equal payments over the first ten years and 40% of the principal amortized in equal payments over the rema
(3) Ending Outstanding Debt represents total net General Fund Debt to be paid from General Fund Unrestricted Revenues. It does include General F school building aid.
(4) General Fund Unrestricted Revenues reflect actual revenues for FY 2015, with the portion of meals and room tax revenues designated for the deb school building aid bonds included. The revenues are assumed to grow by 2.0% in each of fiscal years 2016 through 2022.
(5) Total Personal Income - source: U.S. Department of Commerce, Bureau of Economic Analysis for 2014 figure of $70,020 million Assumes 3.6%
(6) Population source: US Census Bureau 2014 figure of 1,326,813. Assume: 0.2% growth annually thereafter.
(7) State guaranteed debt includes Net General Fund Debt plus the outstanding $26.3 million of Qualified School Construction Bonds (QSCBs) and BFA debt totalling $57.9 million at June 30, 2015.
(8) Debt Service includes State guaranteed debt outstanding or to be issued for the following: local Superfund sites, BFA, and PDA .
Excludes water pollution control, local landfills and local school guaranteed debt (with exception of QSCBs). Assumes level debt service over 20 y State guaranteed debt.
$34.42 million is issued in each of FY 2017 and 2018, $34.32 million in FY 2019 and $11.42 million in each of FY 2020 and 2021.
Estimated authorized but unissued State guaranteed debt of $126.0 million includes:
$20 million for local Superfund sites; $57.1 million for BFA and $48.9 million for Pease.

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Base Case: Issuance of $62.5 Million Annually in FY 2017-19 and $60 Million Annually in FY 2020-22
School Building Aid Bonds Included

		Actual	Projected							TOTAL
		2015	2016	2017	2018	2019	2020	2021	2022	2016-2022
Net General Fund Debt (000's)										
Beginning Outstanding			$768,254	$693,731	$686,152	$673,399	$655,692	$634,935	$621,147	
Issuances (1)(2)			$0	$62,500	$62,500	$62,500	$60,000	$60,000	$60,000	$367,500
Retirements:	Existing Debt (1)		74,523	70,079	71,503	72,707	69,507	58,937	54,324	471,581
	New Debt (2)		0	0	3,750	7,500	11,250	14,850	18,450	55,800
	Total Retirements		$74,523	$70,079	$75,253	$80,207	$80,757	$73,787	$72,774	$527,381
Net New Debt			($74,523)	($7,579)	($12,753)	($17,707)	($20,757)	($13,787)	($12,774)	($159,881)
Ending Outstanding (3)		$768,254	$693,731	$686,152	$673,399	$655,692	$634,935	$621,147	$608,373	($159,881)
Existing Debt Service (000's) (1)		$116,072	$112,731	$103,008	$98,901	$96,575	$90,006	$76,315	$69,314	
New Debt Service (000's) (2)		0	0	1,563	$8,344	14,938	21,281	27,229	32,996	
Total Debt Service (000's)		$116,072	$112,731	$104,571	$107,245	$111,513	$111,287	$103,544	$102,310	
General Fund Unrestricted Revenues (000's)(4)		$1,411,249	$1,438,779	$1,466,867	$1,495,533	$1,524,789	$1,554,634	$1,582,319	$1,613,557	
Debt Service as a Percent of Revenues		8.2%	7.8%	7.1%	7.2%	7.3%	7.2%	6.5%	6.3%	
Total Personal Income (000,000's) (5)		72,541	75,152	77,858	80,661	83,564	86,573	89,689	92,918	
Debt to Personal Income		1.1%	0.9%	0.9%	0.8%	0.8%	0.7%	0.7%	0.7%	
Population (000's) (6)		1,329	1,332	1,335	1,337	1,340	1,343	1,346	1,348	
Debt Per Capita		$578	$521	$514	$503	$489	$473	$462	$451	

Footnotes explained on page 2.

Revenue growth rate of 2.0%									
Revenue Calculation	1,397,673	1,425,626	1,454,139	1,483,222	1,512,886	1,543,144	1,574,007	1,605,487	
SBA DS*	13,576	13,152	12,728	12,311	11,903	11,490	8,312	8,070	from Rachel's spreadsheet Jan 2016)
Revenues	1,411,249	1,438,779	1,466,867	1,495,533	1,524,789	1,554,634	1,582,319	1,613,557	

* Per Comptroller's Office, M&R Revenue to fund SBA debt service is netted out of net GF unrestricted revenue reported in CAFR.

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Effect of State Guaranteed Bonds on Debt Ratios - Base Case

Net General Fund Debt (000's)	Actual 2015	Projected 2016	2017	2018	2019	2020	2021	2022	TOTAL 2016-2022
Beginning Outstanding (7) (8)		$852,455	$774,696	$797,316	$813,704	$823,919	$807,623	$797,699	
G.O. Issuances		$0	$62,500	$62,500	$62,500	$60,000	$60,000	$60,000	$367,500
State Guaranteed Issuances (7) (8)		0	34,420	34,420	34,320	11,420	11,420	0	126,000
Retirements G.O. Debt		74,523	70,079	75,253	80,207	80,757	73,787	72,774	527,381
State Guaranteed Debt (8)		3,235	4,222	5,279	6,397	6,960	7,556	7,867	41,515
Total Retirements		$77,759	$74,300	$80,532	$86,604	$87,717	$81,343	$80,641	$568,896
Net New Debt		($77,759)	$22,620	$16,388	$10,216	($16,297)	($9,923)	($20,641)	($75,396)
Ending Outstanding	$852,455	$774,696	$797,316	$813,704	$823,919	$807,623	$797,699	$777,059	($75,396)
G.O. Debt Service (000's)	$116,072	$112,731	$104,571	$107,245	$111,513	$111,287	$103,544	$102,310	
State Guaranteed Debt Service (000's) (8)	7,858	7,561	10,432	13,315	16,188	17,066	17,943	17,814	
Total Debt Service (000's)	123,930	120,292	115,003	120,559	127,701	128,353	121,487	120,124	
General Fund Unrestricted Revenues (000's) (4)	$1,411,249	$1,438,779	$1,466,867	$1,495,533	$1,524,789	$1,554,634	$1,582,319	$1,613,557	
Debt Service as a Percent of Revenues	8.8%	8.4%	7.8%	8.1%	8.4%	8.3%	7.7%	7.4%	
Total Personal Income (000,000's) (5)	$72,541	$75,152	$77,858	$80,661	$83,564	$86,573	$89,689	$92,918	
Debt to Personal Income	1.2%	1.0%	1.0%	1.0%	1.0%	0.9%	0.9%	0.8%	
Population (000's) (6)	1,329	1,332	1,335	1,337	1,340	1,343	1,346	1,348	
Debt Per Capita	$641	$582	$597	$608	$615	$601	$593	$576	

Footnotes explained on page 2.

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Debt Service on Outstanding General Obligation Debt

	2016	2017	2018	2019	2020	2021	2022
Principal Repayments							
General Fund	47,831,839	44,712,557	46,262,993	46,409,509	44,377,204	39,229,899	35,271,642
University System Appropriated	17,938,939	16,602,867	16,465,428	17,511,090	16,331,154	13,659,267	13,004,513
School Building Aid	8,752,428	8,763,345	8,774,759	8,786,668	8,798,826	6,048,000	6,048,000
Total Repayments	74,523,207	70,078,769	71,503,180	72,707,268	69,507,183	58,937,166	54,324,156
Interest Payments							
General Fund	24,705,468	21,602,306	17,902,735	15,652,987	13,499,970	11,523,780	9,938,993
University System Appropriated	9,102,496	7,362,221	5,958,425	5,099,094	4,306,816	3,590,232	3,028,676
School Building Aid	4,399,913	3,965,016	3,536,682	3,115,892	2,691,625	2,263,872	2,022,192
Total Payments	38,207,876	32,929,543	27,397,842	23,867,973	20,498,411	17,377,884	14,989,861
Total Debt Service Payments							
General Fund	72,537,306	66,314,863	64,165,728	62,062,497	57,877,173	50,753,678	45,210,635
University System Appropriated	27,041,435	23,965,087	22,423,854	22,610,184	20,637,971	17,249,500	16,033,190
School Building Aid	13,152,341	12,728,361	12,311,441	11,902,560	11,490,451	8,311,872	8,070,192
Total Debt Service	112,731,083	103,008,312	98,901,022	96,575,241	90,005,595	76,315,050	69,314,017

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Debt Service on New General Obligation Debt

		2016	2017	2018	2019	2020	2021	2022
Debt Issued in FY2016	Outstanding	0	0	0	0	0	0	0
Current Interest Bonds	Principal Payments	0	0	0	0	0	0	0
	Interest Payments	0	0	0	0	0	0	0
	Total Debt Service	0	0	0	0	0	0	0
Debt Issued in FY2017	Outstanding		62,500	58,750	55,000	51,250	47,500	43,750
Current Interest Bonds	Principal Payments		0	3,750	3,750	3,750	3,750	3,750
	Interest Payments		1,563	3,031	2,844	2,656	2,469	2,281
	Total Debt Service		1,563	6,781	6,594	6,406	6,219	6,031
Debt Issued in FY2018	Outstanding			62,500	58,750	55,000	51,250	47,500
Current Interest Bonds	Principal Payments			0	3,750	3,750	3,750	3,750
	Interest Payments			1,563	3,031	2,844	2,656	2,469
	Total Debt Service	0	0	1,563	6,781	6,594	6,406	6,219
Debt Issued in FY2019	Outstanding				62,500	58,750	55,000	51,250
Current Interest Bonds	Principal Payments				0	3,750	3,750	3,750
	Interest Payments				1,563	3,031	2,844	2,656
	Total Debt Service	0	0	0	1,563	6,781	6,594	6,406
Debt Issued in FY2020	Outstanding					60,000	56,400	52,800
Current Interest Bonds	Principal Payments					0	3,600	3,600
	Interest Payments					1,500	2,910	2,730
	Total Debt Service	0	0	0	0	1,500	6,510	6,330
Debt Issued in FY2021	Outstanding						60,000	56,400
Current Interest Bonds	Principal Payments						0	3,600
	Interest Payments						1,500	2,910
	Total Debt Service	0	0	0	0	0	1,500	6,510
Debt Issued in FY2022	Outstanding							60,000
Current Interest Bonds	Principal Payments							0
	Interest Payments							1,500
	Total Debt Service	0	0	0	0	0	0	1,500
Totals Debt Service on New G.O. Debt								
	Principal Payments	0	0	3,750	7,500	11,250	14,850	18,450
	Interest Payments	0	1,563	4,594	7,438	10,031	12,379	14,546
	Total Debt Service	0	1,563	8,344	14,938	21,281	27,229	32,996

Rate on Current Interest Bonds: **5.00%**
Rate on Commercial Paper: **3.00%**

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Debt Service on New General Obligation Debt

		2016	2017	2018	2019	2020	2021	2022
Debt Issued in FY2016	Outstanding	0	0	0	0	0	0	0
Current Interest Bonds	Principal Payments	0	0	0	0	0	0	0
	Interest Payments	0	0	0	0	0	0	0
	Total Debt Service	0	0	0	0	0	0	0
Debt Issued in FY2017	Outstanding		62,500	58,750	55,000	51,250	47,500	43,750
Current Interest Bonds	Principal Payments		0	3,750	3,750	3,750	3,750	3,750
	Interest Payments		1,875	3,638	3,413	3,188	2,963	2,738
	Total Debt Service		1,875	7,388	7,163	6,938	6,713	6,488
Debt Issued in FY2018	Outstanding			62,500	58,750	55,000	51,250	47,500
Current Interest Bonds	Principal Payments			0	3,750	3,750	3,750	3,750
	Interest Payments			1,875	3,638	3,413	3,188	2,963
	Total Debt Service	0	0	1,875	7,388	7,163	6,938	6,713
Debt Issued in FY2019	Outstanding				62,500	58,750	55,000	51,250
Current Interest Bonds	Principal Payments				0	3,750	3,750	3,750
	Interest Payments				1,875	3,638	3,413	3,188
	Total Debt Service	0	0	0	1,875	7,388	7,163	6,938
Debt Issued in FY2020	Outstanding					60,000	56,400	52,800
Current Interest Bonds	Principal Payments					0	3,600	3,600
	Interest Payments					1,800	3,492	3,276
	Total Debt Service	0	0	0	0	1,800	7,092	6,876
Debt Issued in FY2021	Outstanding						60,000	56,400
Current Interest Bonds	Principal Payments						0	3,600
	Interest Payments						1,800	3,492
	Total Debt Service	0	0	0	0	0	1,800	7,092
Debt Issued in FY2022	Outstanding							60,000
Current Interest Bonds	Principal Payments							0
	Interest Payments							1,800
	Total Debt Service	0	0	0	0	0	0	1,800
Totals Debt Service on New G.O. Debt								
	Principal Payments	0	0	3,750	7,500	11,250	14,850	18,450
	Interest Payments	0	1,875	5,513	8,925	12,038	14,855	17,456
	Total Debt Service	0	1,875	9,263	16,425	23,288	29,705	35,906

Rate on Current Interest Bonds: **6.00%**
Rate on Commercial Paper: **3.00%**

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Debt Service on Outstanding State Guaranteed Debt

	2016	2017	2018	2019	2020	2021	2022	2023
BFA $20 million Bond								
Principal	0	0	0	0	0	0	0	0
Interest	695,000	695,000	695,000	695,000	695,000	695,000	695,000	695,000
Total	695,000	695,000	695,000	695,000	695,000	695,000	695,000	695,000
BFA Loan & Revenue Bond Programs (1)								
Balance	37,900,000	36,869,705	35,777,593	34,619,954	33,392,856	32,092,133	30,713,366	29,251,873
Principal	1,030,295	1,092,112	1,157,639	1,227,097	1,300,723	1,378,767	1,461,493	1,549,182
Interest	2,274,000	2,212,182	2,146,656	2,077,197	2,003,571	1,925,528	1,842,802	1,755,112
Payment	3,304,295	3,304,295	3,304,295	3,304,295	3,304,295	3,304,295	3,304,295	3,304,295
Qualified School Construction Bonds								
Principal	2,205,000	2,193,750	2,193,750	2,193,750	2,193,750	2,193,750	2,182,500	2,182,500
Interest (gross of tax credit)	1,356,461	1,237,915	1,119,671	1,001,428	883,185	764,942	647,002	529,365
Total	3,561,461	3,431,665	3,313,421	3,195,178	3,076,935	2,958,692	2,829,502	2,711,865
Total Outstanding State Guaranteed Debt								
Principal	3,235,295	3,285,862	3,351,389	3,420,847	3,494,473	3,572,517	3,643,993	3,731,682
Interest	4,325,461	4,145,097	3,961,327	3,773,626	3,581,757	3,385,470	3,184,804	2,979,478
Total	7,560,756	7,430,959	7,312,716	7,194,473	7,076,230	6,957,987	6,828,797	6,711,160

(1) Assumes level debt service with the following parameters:

Principal*	**37,900,000**
Number of Years	20
Interest Rate	**6.0%**
Annual Payments	3,304,295

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Debt Service on State Guaranteed Debt to be Issued

	2016	2017	2018	2019	2020	2021	2022	2023
Issuances in FY2017 (1)								
Balance		34,420,000	33,484,308	32,492,474	31,441,130	30,326,705	29,145,415	27,893,247
Principal		935,692	991,834	1,051,344	1,114,425	1,181,290	1,252,168	1,327,298
Interest		2,065,200	2,009,058	1,949,548	1,886,468	1,819,602	1,748,725	1,673,595
Total Debt Service		3,000,892	3,000,892	3,000,892	3,000,892	3,000,892	3,000,892	3,000,892
Issuances in FY2018 (1)								
Balance			34,420,000	33,484,308	32,492,474	31,441,130	30,326,705	29,145,415
Principal			935,692	991,834	1,051,344	1,114,425	1,181,290	1,252,168
Interest			2,065,200	2,009,058	1,949,548	1,886,468	1,819,602	1,748,725
Total Debt Service			3,000,892	3,000,892	3,000,892	3,000,892	3,000,892	3,000,892
Issuances in FY2019 (1)								
Balance				34,320,000	33,387,026	32,398,074	31,349,784	30,238,597
Principal				932,974	988,952	1,048,290	1,111,187	1,177,858
Interest				2,059,200	2,003,222	1,943,884	1,880,987	1,814,316
Total Debt Service				2,992,174	2,992,174	2,992,174	2,992,174	2,992,174
Issuances in FY2020 (1)								
Balance					11,420,000	11,109,552	10,780,478	10,431,659
Principal					310,448	329,074	348,819	369,748
Interest					685,200	666,573	646,829	625,900
Total Debt Service					995,648	995,648	995,648	995,648
Issuances in FY2021 (1)								
Balance						11,420,000	11,109,552	10,780,478
Principal						310,448	329,074	348,819
Interest						685,200	666,573	646,829
Total Debt Service						995,648	995,648	995,648
Total State Guaranteed Debt to be Issued								
Principal	0	935,692	1,927,526	2,976,152	3,465,169	3,983,527	4,222,538	4,475,890
Interest	0	2,065,200	4,074,258	6,017,807	6,524,438	7,001,728	6,762,716	6,509,364
Total Debt Service	0	3,000,892	6,001,785	8,993,959	9,989,607	10,985,254	10,985,254	10,985,254
Total Outstanding and Future Issuances of State Guaranteed Debt (2)								
Principal	3,235,295	4,221,555	5,278,916	6,397,000	6,959,642	7,556,043	7,866,531	8,207,573
Interest	4,325,461	6,210,297	8,035,585	9,791,432	10,106,194	10,387,198	9,947,520	9,488,842
Total Debt Service	7,560,756	10,431,852	13,314,501	16,188,432	17,065,836	17,943,241	17,814,051	17,696,414

(1) Assumes level debt service with the following parameters: Number of Years 20
Interest Rate 6.0%

(2) Includes total Outstanding Guaranteed Debt Service

		2017	2018	2019	2020	2021	2022	
BFA Loans	57,100,000	11,420,000	11,420,000	11,420,000	11,420,000	11,420,000		57,100,000
PDA	48,900,000	16,300,000	16,300,000	16,300,000				48,900,000
Local Superfund	20,000,000	6,700,000	6,700,000	6,600,000				20,000,000
Water Resources - Program Elimin.	0	0	0	0				0
	126,000,000	34,420,000	34,420,000	34,320,000	11,420,000	11,420,000		126,000,000

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Assumptions to Sensitivity Case I- Issuance of $62.5 Million Annually in FY 2017-19 and $60 Million Annually in FY 2020-22; No Revenue Growth After FY 2016
School Building Aid Bonds Included

(1) There is currently no GO debt issued in FY 2016.
(2) $62.5 million of current interest bonds issued annually in FY 2017 through 2019 and $60 million in FY 2020 through 2022 at an interest rate of 5%, with 60% of the principal amortized in equal payments over the first ten years and 40% of the principal amortized in equal payments over the second ten years.
(3) Ending Outstanding Debt represents total net General Fund Debt to be paid from General Fund Unrestricted Revenues. It does include General Fund debt for school building aid.
(4) General Fund Unrestricted Revenues reflect actual revenues for FY 2015, with the portion of meals and room tax revenues designated for the debt service of school building aid bonds included. The revenues are assumed to grow by 2.0% in fiscal year 2016 and 0% afterwards.
(5) Total Personal Income - source: U.S. Department of Commerce, Bureau of Economic Analysis for 2014 figure of $70,020 million. Assumes 3.6% growth annually thereafter.
(6) Population - source: U.S. Census Bureau for 2014 figure of 1,326,813. Assumes 0.2% growth annually thereafter.
(7) State guaranteed debt includes Net General Fund Debt plus the outstanding $26.3 million of Qualified School Construction Bonds (QSCBs) and BFA debt totalling $57.9 million at June 30, 2015.
(8) Debt Service includes State guaranteed debt outstanding or to be issued for the following: local Superfund sites, BFA, and PDA . Excludes water pollution control, local landfills and local school guaranteed debt (with exception of QSCBs). Assumes level debt service over 20 years at 6.00% for new State guaranteed debt.
$34.42 million is issued in each of FY 2017 and 2018, $34.32 million in FY 2019 and $11.42 million in each of FY 2020 and 2021.
Estimated authorized but unissued State guaranteed debt of $126.0 million includes:
$20 million for local Superfund sites; $57.1 million for BFA and $48.9 million for Pease.

THE STATE OF NEW HAMPSHIRE

Debt Affordability Study Update

Sensitivity Case I: Issuance of $62.5 Million Annually in FY 2017-19 and $60 Million Annually in FY 2020-22; No Revenue Growth After FY 2016

School Building Aid Bonds Included

		Actual	Projected							TOTAL
		2015	2016	2017	2018	2019	2020	2021	2022	2016-2022
Net General Fund Debt (000's)										
Beginning Outstanding			$768,254	$693,731	$686,152	$673,399	$655,692	$634,935	$621,147	
Issuances (1)(2)			$0	$62,500	$62,500	$62,500	$60,000	$60,000	$60,000	$367,500
Retirements:	Existing Debt (1)		74,523	70,079	71,503	72,707	69,507	58,937	54,324	471,581
	New Debt (2)		0	0	3,750	7,500	11,250	14,850	18,450	55,800
	Total Retirements		$74,523	$70,079	$75,253	$80,207	$80,757	$73,787	$72,774	$527,381
Net New Debt			($74,523)	($7,579)	($12,753)	($17,707)	($20,757)	($13,787)	($12,774)	($159,881)
Ending Outstanding (3)		$768,254	$693,731	$686,152	$673,399	$655,692	$634,935	$621,147	$608,373	($159,881)
Existing Debt Service (000's) (1)		$116,072	$112,731	$103,008	$98,901	$96,575	$90,006	$76,315	$69,314	
New Debt Service (000's) (2)		0	0	1,563	$8,344	14,938	21,281	27,229	32,996	
Total Debt Service (000's)		$116,072	$112,731	$104,571	$107,245	$111,513	$111,287	$103,544	$102,310	
General Fund Unrestricted Revenues (000's)(4)		$1,411,249	$1,438,779	$1,438,355	$1,437,938	$1,437,529	$1,437,117	$1,433,938	$1,433,697	
Debt Service as a Percent of Revenues		8.2%	7.8%	7.3%	7.5%	7.8%	7.7%	7.2%	7.1%	
Total Personal Income (000,000's) (5)		72,541	75,152	77,858	80,661	83,564	86,573	89,689	92,918	
Debt to Personal Income		1.1%	0.9%	0.9%	0.8%	0.8%	0.7%	0.7%	0.7%	
Population (000's) (6)		1,329	1,332	1,335	1,337	1,340	1,343	1,346	1,348	
Debt Per Capita		$578	$521	$514	$503	$489	$473	$462	$451	

Footnotes explained on page 2.

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Assumptions to Sensitivity Case II: Issuance of $62.5 Million Annually in FY 2017-19 and $60 Million Annually in FY 2020-22; Interest Rates Increase in FY 2017
School Building Aid Bonds Included

(1) There is currently no GO debt issued in FY 2016.

(2) $62.5 million of current interest bonds issued annually in FY 2017 through 2019 and $60 million in FY 2020 through 2022 at an interest rate of 6%, with 60% of the principal amortized in equal payments over the first ten years and 40% of the principal amortized in equal payments over the second ten years.

(3) Ending Outstanding Debt represents total net General Fund Debt to be paid from General Fund Unrestricted Revenues. It does include General Fund debt for school building aid.

(4) General Fund Unrestricted Revenues reflect actual revenues for FY 2015, with the portion of meals and room tax revenues designated for the debt service of school building aid bonds included. The revenues are assumed to grow by 2.0% in each of fiscal years 2016 through 2022.

(5) Total Personal Income - source: U.S. Department of Commerce, Bureau of Economic Analysis for 2014 figure of $70,020 million. Assumes 3.6% growth annually thereafter.

(6) Population - source: U.S. Census Bureau for 2014 figure of 1,326,813. Assumes 0.2% growth annually thereafter.

(7) State guaranteed debt includes Net General Fund Debt plus the outstanding $26.3 million of Qualified School Construction Bonds (QSCBs) and BFA debt totalling $57.9 million at June 30, 2015.

(8) Debt Service includes State guaranteed debt outstanding or to be issued for the following: local Superfund sites, BFA, and PDA . Excludes water pollution control, local landfills and local school guaranteed debt (with exception of QSCBs). Assumes level debt service over 20 years at 7.00% for new State guaranteed debt.
$34.42 million is issued in each of FY 2017 and 2018, $34.32 million in FY 2019 and $11.42 million in each of FY 2020 and 2021.
Estimated authorized but unissued State guaranteed debt of $126.0 million includes:
$20 million for local Superfund sites; $57.1 million for BFA and $48.9 million for Pease.

THE STATE OF NEW HAMPSHIRE

Debt Affordability Study Update

Sensitivity Case II: Issuance of $62.5 Million Annually in FY 2017-19 and $60 Million Annually in FY 2020-22; Interest Rates Increased After FY 2016

School Building Aid Bonds Included

		Actual	Projected							TOTAL
		2015	2016	2017	2018	2019	2020	2021	2022	2016-2022
Net General Fund Debt (000's)										
Beginning Outstanding			$768,254	$693,731	$686,152	$673,399	$655,692	$634,935	$621,147	$768,254
Issuances (1)(2)			$0	$62,500	$62,500	$62,500	$60,000	$60,000	$60,000	$367,500
Retirements:	Existing Debt (1)		74,523	70,079	71,503	72,707	69,507	58,937	54,324	471,581
	New Debt (2)		0	0	3,750	7,500	11,250	14,850	18,450	55,800
	Total Retirements		$74,523	$70,079	$75,253	$80,207	$80,757	$73,787	$72,774	$527,381
Net New Debt			($74,523)	($7,579)	($12,753)	($17,707)	($20,757)	($13,787)	($12,774)	($159,881)
Ending Outstanding (3)		$768,254	$693,731	$686,152	$673,399	$655,692	$634,935	$621,147	$608,373	$608,373
Existing Debt Service (000's) (1)		$116,072	$112,731	$103,008	$98,901	$96,575	$90,006	$76,315	$69,314	
New Debt Service (000's) (2)		0	0	1,875	9,263	16,425	23,288	29,705	35,906	
Total Debt Service (000's)		$116,072	$112,731	$104,883	$108,164	$113,000	$113,293	$106,020	$105,220	
General Fund Unrestricted Revenues (000's)(4)		$1,411,249	$1,438,779	$1,466,867	$1,495,533	$1,524,789	$1,554,634	$1,582,319	$1,613,557	
Debt Service as a Percent of Revenues		8.2%	7.8%	7.2%	7.2%	7.4%	7.3%	6.7%	6.5%	
Total Personal Income (000,000's) (5)		72,541	75,152	77,858	80,661	83,564	86,573	89,689	92,918	
Debt to Personal Income		1.1%	0.9%	0.9%	0.8%	0.8%	0.7%	0.7%	0.7%	
Population (000's) (6)		1,329	1,332	1,335	1,337	1,340	1,343	1,346	1,348	
Debt Per Capita		$578	$521	$514	$503	$489	$473	$462	$451	

Footnotes explained on page 2.

THE STATE OF NEW HAMPSHIRE
Debt Affordability Study Update
Effect of State Guaranteed Bonds and Flat Revenues on Debt Ratios

Net General Fund Debt (000's)	Actual 2015	Projected 2016	2017	2018	2019	2020	2021	2022	TOTAL 2016-2022
Beginning Outstanding (7) (8)		$852,455	$774,696	$797,316	$813,704	$823,919	$807,623	$797,699	
G.O. Issuances		$0	$62,500	$62,500	$62,500	$60,000	$60,000	$60,000	$367,500
State Guaranteed Issuances (7) (8)		0	34,420	34,420	34,320	11,420	11,420	0	126,000
Retirements G.O. Debt		74,523	70,079	75,253	80,207	80,757	73,787	72,774	527,381
State Guaranteed Debt (8)		3,235	4,222	5,279	6,397	6,960	7,556	7,867	41,515
Total Retirements		$77,759	$74,300	$80,532	$86,604	$87,717	$81,343	$80,641	$568,896
Net New Debt		($77,759)	$22,620	$16,388	$10,216	($16,297)	($9,923)	($20,641)	($75,396)
Ending Outstanding	$852,455	$774,696	$797,316	$813,704	$823,919	$807,623	$797,699	$777,059	($75,396)
G.O. Debt Service (000's)	$116,072	$112,731	$104,571	$107,245	$111,513	$111,287	$103,544	$102,310	
State Guaranteed Debt Service (000's) (8)	7,858	7,561	10,432	13,315	16,188	17,066	17,943	17,814	
Total Debt Service (000's)	123,930	120,292	115,003	120,559	127,701	128,353	121,487	120,124	
General Fund Unrestricted Revenues (000's) (4)	$1,411,249	$1,438,779	$1,438,355	$1,437,938	$1,437,529	$1,437,117	$1,433,938	$1,433,697	
Debt Service as a Percent of Revenues	8.8%	8.4%	8.0%	8.4%	8.9%	8.9%	8.5%	8.4%	
Total Personal Income (000,000's) (5)	$72,541	$75,152	$77,858	$80,661	$83,564	$86,573	$89,689	$92,918	
Debt to Personal Income	1.2%	1.0%	1.0%	1.0%	1.0%	0.9%	0.9%	0.8%	
Population (000's) (6)	1,329	1,332	1,335	1,337	1,340	1,343	1,346	1,348	
Debt Per Capita	$641	$582	$597	$608	$615	$601	$593	$576	

Footnotes explained on page 2.