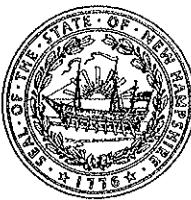


William F. Dwyer  
COMMISSIONER OF THE TREASURY



**THE STATE OF NEW HAMPSHIRE  
STATE TREASURY**

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April 4, 2014

Honorable Chuck Morse  
President of the Senate  
Honorable Terie Norelli  
Speaker of the House

Dear President Morse and Speaker Norelli:

Attached is a copy of the debt affordability study for fiscal year 2013 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 and economic scenarios on the State's debt ratios. It is important to note that this study focuses on net General Fund debt outstanding and does not consider debt funded with Highway Funds or other self-supporting sources.

The base case found on page 3 of the appendix assumes issuance of \$67.5 million in new net general fund debt as well as annual revenue growth of 2.5% in fiscal years 2015 through 2020. The \$67.5 million in new net general fund debt in fiscal years 2015 through 2020 would include any new authorizations for capital needs to be bonded and paid from general fund unrestricted revenues. Also included in the attached analysis is the effect of the issuance of \$131 million in school building aid debt in fiscal years 2010 and 2011.

Sensitivity Case 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 case is to examine how no revenue growth might affect our borrowing capacity. Sensitivity Case 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 demonstrate that while our debt service to revenue ratio increases, it remains below the 10% rule of thumb warning level.

In addition, scenarios were prepared to highlight the impact of state guaranteed bonds on the State's debt ratios. Even in the very worst case (and unlikely) scenario under which the State would be required to assume all guarantee liabilities our debt service to revenue ratio remains below the 10% rule of thumb warning level, albeit by a narrow margin.

Hon. Chuck Morse  
Hon. Terie Norelli  
April 4, 2014  
Page 2

The debt service to unrestricted revenues ratio is the measure most closely examined by policy makers as the best barometer of our debt affordability levels. This analysis indicates that our debt service to unrestricted revenue ratio remains manageable under these scenarios. From past analyses we know that our ratios are most dramatically impacted by assuming no future revenue growth in state unrestricted revenues.

Our ratios are also influenced by including contingent debt in the analysis, which is admittedly a worst case scenario but important to consider for credit rating purposes. While sometimes difficult to measure, the level of contingent debt does have an impact on our credit rating, notwithstanding the past success of our State guarantee programs.

I am happy to further discuss this study with you at any time.

Respectfully,

[REDACTED]  
William F. Dwyer  
Commissioner of the Treasury

#### Attachments

Cc:

Honorable Maggie Hassan, Governor  
Representative Mary Jane Wallner, Chair, House Finance Committee  
Representative David Campbell, Chair, House Public Works and Highways  
Senator Jeanie Forrester, Chair, Senate Finance Committee  
Senator David Boutin, Chair, Senate Capital Budget Committee  
Linda Hodgdon, Commissioner, Department of Administrative Services  
Jeffry Pattison, Legislative Budget Assistant

## Public Resources Advisory Group

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40 Rector Street, Suite 1600 ■ New York, New York 10006-2908 ■ (212) 566-7800

**MEMORANDUM TO:** Bill Dwyer  
Commissioner of the Treasury  
State of New Hampshire

**FROM:** Public Resources Advisory Group ("PRAG")

**SUBJECT:** Debt Affordability Study Update

**DATE:** April 1, 2014

---

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, 2013. 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 November 22, 2013), "The state's debt ratios are low-to-moderate" (Standard & Poor's report dated November 26, 2013) and "debt liabilities are low, amortization is rapid" (Fitch Ratings report dated November 22, 2013). Thus, the credit agencies recognize the State's fiscal prudence in regard to debt.

### Assumptions

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

1. The fiscal year 2014 issuance includes \$5.165 million general obligation bonds issued in August 2013 and \$78.015 million issued in December 2013 which resulted in General Fund net issuance of \$57.765 million.
2. \$67.5 million of tax-exempt general obligation debt to be issued in each of fiscal years 2015 through 2020. 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 second ten years.
3. \$50 million of the Commercial Paper is issued in fiscal year 2014 and the outstanding Commercial Paper rolled over each year through 2020 at an assumed rate of 3.00%.
4. Net General Fund Debt includes \$131.0 million of the School Building Aid bonds issued in fiscal years 2010 and 2011 and outstanding in the amount of \$113.8 million as of June 30, 2013.
5. General Fund Unrestricted Revenues reflect actual revenues for fiscal year 2013 and budgeted revenues for fiscal years 2014 and 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 2.50% in fiscal years 2016 through 2020.
6. Total personal income is based on 2012 figure of \$64.89 billion and is projected to grow at an average annual rate of 4.00%.
7. Population is based on 2012 figure of 1.321 million and is projected to grow at an average annual rate of 0.40% per year.

## **Public Resources Advisory Group**

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 taken into account includes 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 and local schools and local landfills.
2. Future issuances of State guaranteed debt are assumed to be as follows:

<b>Expected Issuances of State Guaranteed Debt</b>		
<b>Fiscal Year</b>	<b>Dollar Amount</b>	<b>Purpose</b>
2015	\$30,880,000	Superfund, BFA, Pease
2016	30,880,000	Superfund, BFA, Pease
2017	30,780,000	Superfund, BFA, Pease
2018	7,880,000	BFA
2019	7,880,000	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 or Case 1 (page 3 of the Appendix) shows the effect on the State's debt ratios, based on the above assumptions including the issuance of \$67.5 million of tax-exempt general obligation debt in each of fiscal years 2015 through 2020 in addition to the issuance of \$50 million of Commercial Paper in fiscal year 2014. Combining these issuances and repayments of outstanding debt, the total issuance is approximately \$68.7 million less than retirements during the period, causing the State's net general fund debt to decrease from \$808.6 million at June 30, 2013 to \$739.9 million at June 30, 2020, a total decrease of 9.3% or 1.3% annually.

At the current time, New Hampshire's ratios of debt to personal income and debt per capita are significantly below the 2013 Moody's medians for states. New Hampshire's net general fund debt service to revenues ratio at 7.7% for fiscal year 2013 was higher than the median of 4.9% but well below the level that credit analysts use as a warning sign of excessive debt service burden of 10.0%. By issuing general obligation debt over the projected period in the amounts outlined above, New Hampshire's debt ratios would remain under the 2013 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**

	<b>Moody's Median</b>	<b>New Hampshire</b>	
	2013	June 30, 2013	June 30, 2020 Est.
Debt to Personal Income	2.8%	1.2%	0.8%
Debt Per Capita	\$1,074	\$610	\$543
Debt Service to Revenues	4.9%*	7.7%	7.5%

\* 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.

## **Public Resources Advisory Group**

As can be seen, the ratio of debt service to revenues is projected to decrease to 7.5% at June 30, 2020 although it would reach 8.2% in fiscal year 2015. Debt to personal income would decline over the period, from 1.2% at June 30, 2013 to 0.8% at June 30, 2020 and debt per capita would decline from \$610 to \$543. These ratios relative to Moody's medians form the basis for the rating agencies assessment of the State's debt position.

### **Sensitivity Analyses: Effects of Flat Revenues and Higher Interest Rates**

Given the current and future uncertainty regarding the economy and the markets, it is more difficult than ever to make forecasts. Accordingly, a sensitivity case on General Fund revenues was developed, assuming no growth of revenues after fiscal year 2015. Under these assumptions, New Hampshire's debt ratios would change as summarized in the chart below:

**Debt Ratios Assuming Flat Revenues After FY 2015**

Summary of Debt Ratios for Net General Fund Debt					
	Moody's Median	Base Case		Flat Revenue Assumption	
		2013	FY 2013	FY 2020 Est.	FY 2013
					FY 2020 Est.
Debt to Personal Income	2.8%		1.2%	0.8%	1.2%
Debt Per Capita	\$1,074		\$610	\$543	\$610
Debt Service to Revenues	4.9%*		7.7%	7.5%	7.7%
					8.5%

With the flat revenue, the ratio of debt service to revenues would increase substantially from 7.7% for fiscal year 2013 to 8.5% for fiscal year 2020, compared to 7.5% in the Base Case. At the 8.5% level, this ratio would be still below the 10.0% rule of thumb. Other ratios would not change since the basis for the metric is not affected. (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	Base Case		1% Interest Rate Increase	
		2013	FY 2013	FY 2020 Est.	FY 2013
					FY 2020 Est.
Debt to Personal Income	2.8%		1.2%	0.8%	1.2%
Debt Per Capita	\$1,074		\$610	\$543	\$610
Debt Service to Revenues	4.9%*		7.7%	7.5%	7.7%
					7.7%

\* 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 at 7.7% would remain at the same level in fiscal year 2020 as in the Base Case in fiscal year 2013 although it would reach 8.3% in fiscal year 2015, still below the 10% rule of thumb. Other ratios again would not change since the basis for the metric is not affected. (The details of this analysis are shown on pages 11-12 of the Appendix).

## **Public Resources Advisory Group**

### **Effect of State Guarantees on Debt Ratios**

The effect of State guarantees on New Hampshire's debt ratios is shown on page 4 of the Appendix. For this analysis there was \$86.3 million of outstanding guaranteed debt at June 30, 2013, which, added to the State's net General Fund debt, brings the total to \$894.9 million, as shown in the table below:

<b>Net General Fund and Guaranteed Debt at June 30, 2013</b>	
	<i>(\\$ in millions)</i>
Net General Fund Debt	\$808.60
Guaranteed Debt	
Business Finance Authority	55.60
Qualified School Construction Bonds (QSCBs)	30.70
Total Guaranteed Debt	<u><u>\$86.30</u></u>
Total Net General Fund and Guaranteed Debt	<u><u>\$894.90</u></u>

There is approximately \$108.3 million of authorized but unissued State guaranteed debt at June 30, 2013, as shown in the table below:

<b>Authorized But Unissued State Guaranteed Debt at June 30, 2013</b>	
<b>Purpose</b>	<b>Amount</b>
	<i>(\\$ in millions)</i>
Local Superfund Sites	\$20.00
Business Finance Authority	39.40
Pease Development Authority	<u><u>48.90</u></u>
Total	<u><u>\$108.30</u></u>

For this scenario, we assumed that: the Business Finance Authority would issue \$7.88 million in each of fiscal years 2015 through 2019; Pease Development Authority would issue \$16.3 million in each of fiscal years 2015 through 2017; and the Local Superfund would issue \$6.7 million in each of fiscal years 2015 and 2016 and \$6.6 million in fiscal year 2017.

The table below compares the ratios in three cases. The first case is the Base Case and it excludes guaranteed debt. The second case (Case 2), which is a more conservative 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 maximum debt outstanding would reach approximately \$964 million at June 30, 2017, which is \$160 million more than the net General Fund debt expected to be outstanding at that time. The last "worst case" scenario (Case 3) combines outstanding and additional issuances of the State guaranteed debt with a flat revenue assumption, shown in the Appendix on page 13. The resulting debt ratios are summarized in the following chart:

## Public Resources Advisory Group

### Summary of Debt Ratios

	Moody's <u>Median</u>	Case 2				Case 3		
		Case 1 (Base Case)		Net General Fund and <u>All Guaranteed Debt</u>	Net General Fund, All Guaranteed Debt and <u>Flat Revenues</u>			
		2013	FY 2013	FY 2020 Est.	FY 2013	FY 2020 Est.	FY 2013	FY 2020 Est.
Total Debt Outstanding (\$ in millions)	---	\$809	\$740	\$895	\$896	\$895	\$896	
Debt to Personal Income	2.80%	1.20%	0.80%	1.30%	1.00%	1.30%	1.00%	
Debt Per Capita	\$1,074	\$610	\$543	\$675	\$657	\$683	\$657	
Debt Service to Revenues	4.9%*	7.7%	7.5%	8.6%	8.5%	8.6%	9.6%	

As would be expected, all debt ratios rise as a result of additional State guaranteed debt issuances. At June 30, 2020, the State's debt to personal income would be 1.0% in Case 2 as opposed to 0.8% in the Base Case, while reaching 1.3% in fiscal years 2013 through 2016. In fiscal year 2020, debt per capita would be \$657 in Case 2 as opposed to \$543 in the Base Case; and debt service to revenues would be 8.5% as opposed to 7.5% in the Base Case. In Case 3, the "worst case" scenario, debt service to revenues would increase to 9.6% while all other ratios would be the same as in Case 2. In all cases, debt per capita and debt to personal income ratio would be lower than the 2013 Moody's medians. Debt service to revenue ratio would remain below the "warning level" of 10% although getting close to it in the "worst case" scenario.

### **Conclusion**

The State's debt ratios are considered "manageable" to "low" by the rating agencies. If the State issues \$405 million of general obligation debt in fiscal years 2015 through 2020, 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 1.2% to 0.8% at the end of fiscal year 2020; debt service to revenues would decrease from 7.7% to 7.5% at June 30, 2020; and debt per capita would decline from \$610 to \$543. At these levels, the debt ratios would remain "manageable."

Sensitivity analyses show that with flat revenues the debt service to revenue ratio would be 8.5% in fiscal year 2020, above the 7.5% level in the Base Case, and it would 7.7% in the scenario with increased interest rates, same as in the Base Case. At these levels, the debt service to revenue ratios in the two sensitivity cases would still be below the warning level for excessive debt service burden of 10%, although closer to it.

When existing and additional State guaranteed debt are added to the Base Case scenario, debt to personal income maintains the 1.3% level from the fiscal year 2013 level of 1.3% through fiscal year 2016 before gradually declining to 1.0% in fiscal year 2020. Debt per capita and the debt service ratio would rise above both current and projected Base Case ratios under the "worst case" scenario of constant revenues, with the most substantial effect on the projected ratio of debt service to revenues, which would rise from the projected Base Case level of 7.5% in fiscal year 2020 to 9.6%.

Since the ratio of debt service to revenues is already above the Moody's median level, the State should closely monitor this ratio and take corrective action if revenue growth falls below the level projected in the Base Case. This becomes particularly important if the 10% "warning level" is approached.



**THE STATE OF NEW HAMPSHIRE**  
**Debt Affordability Study Update**

**Appendix -- Analytic Summary**

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**THE STATE OF NEW HAMPSHIRE**  
**Debt Affordability Study Update**  
**Assumptions to Base Case - Issuance of \$67.5 Million Annually in FY 2015-2020**  
**School Building Aid Bonds Included**

- (1) Includes issuance of \$5.165 million in August 2013 and \$78.015 million in December 2013 resulting in General Fund net issuance of \$57.765 million.
  - (2) \$67.5 million of current interest bonds issued annually in FY 2015 through 2020 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.
  - \$50 million of Commercial Paper is issued in FY 2014 and rolled over each year through 2020 at a rate of 3.0%.
  - (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 2013 and budgeted revenues for FY 2014 and 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 2.5% in each of fiscal years 2016 through 2020.
  - (5) Total Personal Income - source: U.S. Department of Commerce, Bureau of Economic Analysis for 2012 figure of \$64,885 million. Assumes 4% growth annually thereafter.
  - (6) Population - source: U.S. Census Bureau for 2012 figure of 1,321,000. Assumes 0.4% growth annually thereafter.
  - (7) State guaranteed debt includes Net General Fund Debt plus the outstanding \$30.7 million of Qualified School Construction Bonds (QSCBs) and BFA debt totalling \$55.6 million at June 30, 2013.
  - (8) Debt Service includes State guaranteed debt outstanding or to be issued for the following: local Superfund sites; BFA, PDA and Division of Water Resources. 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.
- \$30.88 million is issued in each of FY 2015 and 2016, \$30.78 million in 2017 and \$7.88 million in each of FY 2018 and 2019.
- Estimated authorized but unissued State guaranteed debt of \$108.3 million includes:  
\$20 million for local Superfund sites; \$39.4 million for BFA and \$48.9 million for Pease.

**THE STATE OF NEW HAMPSHIRE**  
**Debt Affordability Study Update**  
**Base Case: Issuance of \$67.5 Million Annually in FY 2015-2020**

**School Building Aid Bonds Included**

	Actual 2013	Projected 2014	2015	2016	2017	2018	2019	2020	TOTAL 2014-2020
<b>Net General Fund Debt (000's)</b>									
Beginning Outstanding		\$808,624	\$842,628	\$832,450	\$819,860	\$803,947	\$784,990	\$762,740	
Issuances (1)(2)		\$107,765	\$67,500	\$67,500	\$67,500	\$67,500	\$67,500	\$67,500	\$512,765
Retirements:		73,761	77,677	76,040	75,313	74,307	73,550	70,068	520,717
Existing Debt (1)				4,050	8,100	12,150	16,200	20,250	60,750
New Debt (2)		0	0						
Total Retirements		\$73,761	\$77,677	\$80,090	\$83,413	\$86,457	\$89,750	\$90,318	\$581,467
Net New Debt		\$34,004	(\$10,177)	(\$12,590)	(\$15,913)	(\$18,957)	(\$22,250)	(\$22,818)	(\$68,702)
Ending Outstanding (3)		\$808,624	\$842,628	\$832,450	\$819,860	\$803,947	\$784,990	\$762,740	\$739,922
Existing Debt Service (000's) (1)		\$112,389	\$112,041	\$115,312	\$107,764	\$101,827	\$95,222	\$90,937	\$84,270
New Debt Service (000's) (2)		0	750	3,188	\$10,511	17,633	24,551	31,268	37,781
Total Debt Service (000's)		\$112,389	\$112,791	\$118,500	\$118,275	\$119,459	\$119,773	\$122,205	\$122,051
General Fund Unrestricted Revenues (000's)(4)		\$1,451,242	\$1,417,223	\$1,443,633	\$1,478,960	\$1,515,182	\$1,552,326	\$1,590,418	\$1,629,881
Debt Service as a Percent of Revenues		7.7%	8.0%	8.2%	8.0%	7.9%	7.7%	7.7%	7.5%
Total Personal Income (000,000's) (5)		67,480	70,180	72,987	75,906	78,943	82,100	85,384	88,800
Debt to Personal Income		1.2%	1.2%	1.1%	1.1%	1.0%	1.0%	0.9%	0.8%
Population (000's) (6)		1,326	1,332	1,337	1,342	1,348	1,353	1,358	1,364
Debt Per Capita		\$610	\$633	\$623	\$611	\$597	\$580	\$561	\$543

Footnotes explained on page 2.

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

	Actual 2013	Projected 2014	2015	2016	2017	2018	2019	2020	TOTAL 2014-2020
Net General Fund Debt (000's)	\$894,910	\$925,737	\$942,366	\$955,634	\$964,485	\$946,948	\$925,648		
Beginning Outstanding (7) (8)									
G.O. Issuances	\$107,765	\$67,500	\$67,500	\$67,500	\$67,500	\$67,500	\$67,500	\$67,500	\$512,765
State Guaranteed Issuances (7) (8)	0	30,880	30,880	30,780	7,880	7,880	0	0	108,300
Retirements G.O. Debt	73,761	77,677	80,090	83,413	86,457	89,750	90,318	581,467	
State Guaranteed Debt (8)	<u>3,177</u>	<u>4,074</u>	<u>5,022</u>	<u>6,016</u>	<u>6,460</u>	<u>6,930</u>	<u>7,214</u>	<u>38,892</u>	
Total Retirements	\$76,938	\$81,752	\$85,112	\$89,429	\$92,917	\$96,680	\$97,532	\$620,359	
Net New Debt	\$30,827	\$16,628	\$13,268	\$8,851	(\$17,537)	(\$21,300)	(\$30,032)	\$706	
Ending Outstanding	\$894,910	\$925,737	\$942,366	\$955,634	\$964,485	\$946,948	\$925,648		\$895,616
G.O. Debt Service (000's)	\$112,389	\$112,791	\$118,500	\$118,275	\$119,459	\$119,773	\$122,205	\$122,051	
State Guaranteed Debt Service (000's) (8)	<u>11,932</u>	<u>7,602</u>	<u>10,175</u>	<u>12,745</u>	<u>15,298</u>	<u>15,867</u>	<u>16,436</u>	<u>16,318</u>	
Total Debt Service (000's)	124,321	120,393	128,675	131,020	134,758	135,640	138,641	138,369	
General Fund Unrestricted Revenues (000's) (4)	\$1,451,242	\$1,417,223	\$1,443,633	\$1,478,960	\$1,515,182	\$1,552,326	\$1,590,418	\$1,629,881	
Debt Service as a Percent of Revenues	8.6%	8.5%	8.9%	8.9%	8.9%	8.7%	8.7%	8.5%	
Total Personal Income (000,000's) (5)	\$67,480	\$70,180	\$72,987	\$75,906	\$78,943	\$82,100	\$85,384	\$88,800	
Debt to Personal Income	1.3%	1.3%	1.3%	1.3%	1.2%	1.2%	1.1%	1.0%	
Population (000's) (6)	1,326	1,332	1,337	1,342	1,348	1,353	1,358	1,364	
Debt Per Capita	\$675	\$695	\$705	\$712	\$716	\$700	\$681	\$657	

Footnotes explained on page 2.

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

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
<b><u>Principal Repayments</u></b>							
General Fund	48,924,506	49,371,413	45,291,493	44,989,000	44,376,487	43,757,399	41,073,127
University System Appropriated	16,104,732	15,514,053	17,946,062	17,510,535	17,106,229	16,956,190	16,145,601
School Building Aid	<u>8,732,083</u>	<u>8,742,008</u>	<u>8,752,428</u>	<u>8,763,345</u>	<u>8,774,759</u>	<u>8,786,668</u>	<u>8,798,826</u>
Total Repayments	73,761,321	73,627,474	71,989,988	71,262,880	70,257,475	69,500,257	66,017,554
<b><u>Interest Payments</u></b>							
General Fund	23,420,100	26,770,385	22,294,027	19,259,931	15,528,480	13,317,483	11,318,481
University System Appropriated	9,590,856	10,079,748	9,079,743	7,339,161	5,899,212	5,003,569	4,242,006
School Building Aid	<u>5,268,477</u>	<u>4,834,393</u>	<u>4,399,913</u>	<u>3,965,016</u>	<u>3,536,682</u>	<u>3,115,892</u>	<u>2,691,625</u>
Total Payments	38,279,433	41,684,526	35,773,682	30,564,108	24,964,374	21,436,944	18,252,112
<b><u>Total Debt Service Payments</u></b>							
General Fund	72,344,606	76,141,798	67,585,525	64,248,932	59,904,967	57,074,882	52,391,608
University System Appropriated	25,695,588	25,593,802	27,025,804	24,849,696	23,005,441	21,959,760	20,387,607
School Building Aid	14,000,560	13,576,401	13,152,341	12,728,361	12,311,441	11,902,560	11,490,451
Total Debt Service	112,040,754	115,312,001	107,763,671	101,826,989	95,221,849	90,937,201	84,269,666

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

	2014	2015	2016	2017	2018	2019	2020
<u><b>Debt Issued in FY2014</b></u>							
Commercial Paper							
Outstanding	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Principal Payments	0	0	0	0	0	0	0
Interest Payments	750	1,500	1,500	1,500	1,500	1,500	1,500
Total Debt Service	750	1,500	1,500	1,500	1,500	1,500	1,500
<u><b>Debt Issued in FY2015</b></u>							
Current Interest Bonds							
Outstanding	67,500	63,450	59,400	55,350	51,300	47,250	
Principal Payments	0	4,050	4,050	4,050	4,050	4,050	4,050
Interest Payments	1,688	3,274	3,071	2,869	2,666	2,464	
Total Debt Service	1,688	7,324	7,121	6,919	6,716	6,514	
<u><b>Debt Issued in FY2016</b></u>							
Current Interest Bonds							
Outstanding	67,500	63,450	59,400	55,350	51,300		
Principal Payments	0	4,050	4,050	4,050	4,050	4,050	
Interest Payments	1,688	3,274	3,071	2,869	2,666		
Total Debt Service	0	1,688	7,324	7,121	6,919	6,716	
<u><b>Debt Issued in FY2017</b></u>							
Current Interest Bonds							
Outstanding	67,500	63,450	59,400	55,350			
Principal Payments	0	0	0	0	4,050	4,050	
Interest Payments	1,688	1,688	1,688	1,688	3,274	3,071	
Total Debt Service	0	0	0	0	7,324	7,121	
<u><b>Debt Issued in FY2018</b></u>							
Current Interest Bonds							
Outstanding	67,500	63,450	59,400				
Principal Payments	0	0	0	0	0	4,050	
Interest Payments	1,688	1,688	1,688	1,688	3,274	3,071	
Total Debt Service	0	0	0	0	7,324	7,121	
<u><b>Debt Issued in FY2019</b></u>							
Current Interest Bonds							
Outstanding	67,500	63,450	63,450				
Principal Payments	0	0	0	0	0	4,050	
Interest Payments	1,688	1,688	1,688	1,688	3,274	3,071	
Total Debt Service	0	0	0	0	7,324	7,121	
<u><b>Debt Issued in FY2020</b></u>							
Current Interest Bonds							
Outstanding	67,500	63,450	63,450				
Principal Payments	0	0	0	0	0	4,050	
Interest Payments	1,688	1,688	1,688	1,688	3,274	3,071	
Total Debt Service	0	0	0	0	7,324	7,121	
<u><b>Totals Debt Service on New G.O. Debt</b></u>							
Current Interest Bonds							
Outstanding	67,500	63,450	63,450				
Principal Payments	0	0	0	4,050	8,100	12,150	16,200
Interest Payments	750	3,188	6,461	9,533	12,401	15,068	17,531
Total Debt Service	750	3,188	10,511	17,633	24,551	31,268	37,781
Rate on Current Interest Bonds:	5.00%	3.00%					
Rate on Commercial Paper:							

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

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
<b>BFA \$20 million Loan</b>								
Principal	0	0	0	0	0	0	0	0
Interest	<u>695,000</u>							
Total	695,000	695,000	695,000	695,000	695,000	695,000	695,000	695,000
<b>BFA Loan Programs (1)</b>								
Balance	35,600,000	34,632,230	33,606,393	32,519,007	31,366,377	30,144,589	28,849,494	27,476,694
Principal	967,770	1,025,836	1,087,387	1,152,630	1,221,788	1,295,095	1,372,801	1,455,169
Interest	<u>2,136,000</u>	<u>2,077,934</u>	<u>2,016,384</u>	<u>1,951,140</u>	<u>1,881,983</u>	<u>1,808,675</u>	<u>1,730,970</u>	<u>1,648,602</u>
Payment	3,103,770	3,103,770	3,103,770	3,103,770	3,103,770	3,103,770	3,103,770	3,103,770

**Qualified School Construction Bonds**

	<u>Principal</u>	<u>Interest (gross of tax credit)</u>	<u>Total</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
Balance	2,208,750	2,208,750	2,205,000	2,193,750	2,193,750	2,193,750	2,193,750	2,193,750	2,193,750
Principal	<u>1,594,463</u>	<u>1,475,411</u>	<u>1,356,461</u>	<u>1,237,915</u>	<u>1,119,671</u>	<u>1,001,428</u>	<u>883,185</u>	<u>764,942</u>	<u>764,942</u>
Interest									
Total	3,803,213	3,684,161	3,561,461	3,431,665	3,313,421	3,195,178	3,076,935	2,958,692	
<b>Total Outstanding State Guaranteed Debt</b>									
Principal	3,176,520	3,234,586	3,292,387	3,346,380	3,415,538	3,488,845	3,566,551	3,648,919	
Interest	<u>4,425,463</u>	<u>4,248,345</u>	<u>4,067,844</u>	<u>3,884,055</u>	<u>3,696,654</u>	<u>3,505,104</u>	<u>3,309,155</u>	<u>3,108,544</u>	
Total	7,601,983	7,482,932	7,360,231	7,230,435	7,112,192	6,993,949	6,875,705	6,757,462	

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

Principal	<u>35,600,000</u>
Number of Years	20
Interest Rate	<b>6.0%</b>
Annual Payments	3,103,770

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

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
<u>Issuances in FY2014 (1)</u>							
Balance							
Principal	30,380,000	30,040,541	29,150,714	28,207,498	27,207,689	26,147,891	25,024,505
Interest	839,459	889,827	943,216	999,809	1,059,798	1,123,386	1,190,789
Total Debt Service	<u>1,852,800</u>	<u>1,802,432</u>	<u>1,749,043</u>	<u>1,692,450</u>	<u>1,632,461</u>	<u>1,588,873</u>	<u>1,501,470</u>
	2,692,259	2,692,259	2,692,259	2,692,259	2,692,259	2,692,259	2,692,259
<u>Issuances in FY2015 (1)</u>							
Balance							
Principal	30,880,000	30,040,541	29,150,714	28,207,498	27,207,689	26,147,891	26,147,891
Interest	839,459	889,827	943,216	999,809	1,059,798	1,123,386	1,123,386
Total Debt Service	<u>1,852,800</u>	<u>1,802,432</u>	<u>1,749,043</u>	<u>1,692,450</u>	<u>1,632,461</u>	<u>1,588,873</u>	<u>1,588,873</u>
	2,692,259	2,692,259	2,692,259	2,692,259	2,692,259	2,692,259	2,692,259
<u>Issuances in FY2016 (1)</u>							
Balance							
Principal	30,780,000	29,943,259	29,056,314	28,116,152	27,119,581	27,119,581	27,119,581
Interest	836,741	886,945	940,162	996,572	1,056,366	1,056,366	1,056,366
Total Debt Service	<u>1,846,800</u>	<u>1,796,596</u>	<u>1,743,379</u>	<u>1,698,969</u>	<u>1,627,175</u>	<u>1,627,175</u>	<u>1,627,175</u>
	2,683,541	2,683,541	2,683,541	2,683,541	2,683,541	2,683,541	2,683,541
<u>Issuances in FY2017 (1)</u>							
Balance							
Principal	7,880,000	7,665,786	7,438,719	7,198,027	7,198,027	7,198,027	7,198,027
Interest	214,214	227,067	240,691	255,133	255,133	255,133	255,133
Total Debt Service	<u>472,890</u>	<u>459,947</u>	<u>446,323</u>	<u>431,882</u>	<u>431,882</u>	<u>431,882</u>	<u>431,882</u>
	687,014	687,014	687,014	687,014	687,014	687,014	687,014
<u>Issuances in FY2018 (1)</u>							
Balance							
Principal	7,880,000	7,665,786	7,438,719	7,198,027	7,198,027	7,198,027	7,198,027
Interest	214,214	227,067	240,691	246,323	246,323	246,323	246,323
Total Debt Service							
	472,890	459,947	446,323	431,882	431,882	431,882	431,882
<u>Total State Guaranteed Debt to be Issued</u>							
Principal	0	339,459	1,729,286	2,669,784	3,044,185	3,441,050	3,647,513
Interest	0	<u>1,852,800</u>	<u>3,655,232</u>	<u>5,398,275</u>	<u>5,710,888</u>	<u>6,001,037</u>	<u>5,794,574</u>
Total Debt Service	0	2,692,259	5,384,516	8,068,059	8,755,073	9,442,088	9,442,088
<u>Total Outstanding and Future Issuances of State Guaranteed Debt (2)</u>							
Principal	3,176,520	4,074,046	5,021,672	6,016,163	6,459,723	6,929,895	7,214,064
Interest	4,425,463	6,101,145	7,723,077	9,282,330	9,407,542	9,506,141	9,103,729
Total Debt Service	7,601,983	10,175,191	12,744,749	15,298,494	15,867,265	16,436,036	16,317,733

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

(2) Includes total Outstanding Guaranteed Debt Service

Number of Years  
Interest Rate

20  
6.0%

**THE STATE OF NEW HAMPSHIRE**  
**Debt Affordability Study Update**  
**Assumptions to Sensitivity Case I - Issuance of \$67.5 Million Annually in FY 2015-2020; Flat Revenues After FY 2015**  
**School Building Aid Bonds Included**

- (1) Includes issuance of \$5.165 million in August 2013 and \$78.015 million in December 2013 resulting in General Fund net issuance of \$57.765 million.
  - (2) \$67.5 million of current interest bonds issued annually in FY 2015 through 2020 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) \$50 million of Commercial Paper is issued in FY 2014 and rolled over each year through 2020 at a rate of 3.0%.
  - (3) Ending Outstanding Debt represents total net General Fund Unrestricted Revenues. It does include General Fund debt for school building aid.
  - (4) General Fund Unrestricted Revenues reflect actual revenues for FY 2013 and budgeted revenues for FY 2014 and FY 2015, with the portion of meals and room tax revenues designated for the debt service of school building aid bonds included.
  - (5) Total Personal Income - source: U.S. Department of Commerce, Bureau of Economic Analysis for 2012 figure of \$64,885 million. Assumes 4% growth annually thereafter.
  - (6) Population - source: U.S. Census Bureau for 2012 figure of 1,321,000. Assumes 0.4% growth annually thereafter.
  - (7) State guaranteed debt includes Net General Fund Debt plus the outstanding \$30.7 million of Qualified School Construction Bonds (QSCBs) and BFA debt totalling \$55.6 million at June 30, 2013.
  - (8) Debt Service includes State guaranteed debt outstanding or to be issued for the following: local Superfund sites; BFA, PDA and Division of Water Resources, 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.
- \$30.88 million is issued in each of FY 2015 and 2016, \$30.78 million in 2017 and \$7.88 million in each of FY 2018 and 2019.
- Estimated authorized but unissued State guaranteed debt of \$108.3 million includes:  
\$20 million for local Superfund sites; \$39.4 million for BFA and \$48.9 million for Pease.

THE STATE OF NEW HAMPSHIRE  
Debt Affordability Study Update

**Sensitivity Case: I: Issuance of \$67.5 Million Annually in FY 2015-2020; No Revenue Growth After FY 2015**

**School Building Aid Bonds Included**

	Actual 2013	Projected					TOTAL 2014-2020
		2014	2015	2016	2017	2018	
<b>Net General Fund Debt (000's)</b>							
Beginning Outstanding		\$808,624	\$842,628	\$832,450	\$819,860	\$803,947	\$784,990
Issuances (1)(2)		\$107,765	\$67,500	\$67,500	\$67,500	\$67,500	\$67,500
Retirements:		73,761	77,677	76,040	75,313	74,307	73,550
Existing Debt (1)							70,068
New Debt (2)		0	0	4,050	8,100	12,150	16,200
Total Retirements		\$73,761	\$77,677	\$80,090	\$83,413	\$86,457	\$89,750
Net New Debt		\$34,004	(\$10,177)	(\$12,590)	(\$15,913)	(\$18,957)	(\$22,250)
Ending Outstanding (3)		\$808,624	\$842,628	\$832,450	\$819,860	\$803,947	\$784,990
Existing Debt Service (000's) (1)	\$112,389	\$112,041	\$115,312	\$107,764	\$101,827	\$95,222	\$90,937
New Debt Service (000's) (2)	0	750	3,188	\$10,511	17,633	24,551	31,268
Total Debt Service (000's)	\$112,389	\$112,791	\$118,500	\$118,275	\$119,459	\$119,773	\$122,205
General Fund Unrestricted Revenues (000's)(4)	\$1,451,242	\$1,417,223	\$1,443,633	\$1,443,633	\$1,443,633	\$1,443,633	\$1,443,633
Debt Service as a Percent of Revenues	7.7%	8.0%	8.2%	8.2%	8.3%	8.3%	8.5%
Total Personal Income (000,000's) (5)	67,480	70,180	72,987	75,906	78,943	82,100	85,384
Debt to Personal Income	1.2%	1.2%	1.1%	1.1%	1.0%	1.0%	0.9%
Population (000's) (6)	1,326	1,332	1,337	1,342	1,348	1,353	1,358
Debt Per Capita	\$610	\$633	\$623	\$611	\$597	\$580	\$561

Footnotes explained on page 2.

**THE STATE OF NEW HAMPSHIRE**  
**Debt Affordability Study Update**  
**Assumptions to Sensitivity Case II - Issuance of \$67.5 Million Annually in FY 2015-2020; Interest Rates Increased After FY 2014**  
**School Building Aid Bonds Included**

- (1) Includes issuance of \$5.165 million in August 2013 and \$78.015 million in December 2013 resulting in General Fund net issuance of \$57.765 million.
  - (2) \$67.5 million of current interest bonds issued annually in FY 2015 through 2020 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.
  - \$50 million of Commercial Paper is issued in FY 2014 and rolled over each year through 2020 at a rate of 3% in FY 2014 and 4.0% afterwards.
  - (3) Ending Outstanding Debt represents total net General Fund Unrestricted Revenues. It does include General Fund debt for School building aid.
  - (4) General Fund Unrestricted Revenues reflect actual revenues for FY 2013 and budgeted revenues for FY 2014 and 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 2.5% in each of fiscal years 2016 through 2020.
  - (5) Total Personal Income - source: U.S. Department of Commerce, Bureau of Economic Analysis for 2012 figure of \$64,885 million. Assumes 4% growth annually thereafter.
  - (6) Population - source: U.S. Census Bureau for 2012 figure of 1,321,000. Assumes 0.4% growth annually thereafter.
  - (7) State guaranteed debt includes Net General Fund Debt plus the outstanding \$30.7 million of Qualified School Construction Bonds (QSCBs) and BFA debt totalling \$55.6 million at June 30, 2013.
  - (8) Debt Service includes State guaranteed debt outstanding or to be issued for the following: local Superfund sites; BFA, PDA and Division of Water Resources. 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.
- \$30.88 million is issued in each of FY 2015 and 2016, \$30.78 million in 2017 and \$7.88 million in each of FY 2018 and 2019.
- Estimated authorized but unissued State guaranteed debt of \$108.3 million includes:
- \$20 million for local Superfund sites; \$39.4 million for BFA and \$48.9 million for Pease.

**THE STATE OF NEW HAMPSHIRE**

**Debt Affordability Study Update**

**Sensitivity Case II: Issuance of \$67.5 Million Annually in FY 2015-2020; Interest Rates Increased After FY 2014**

**School Building Aid Bonds Included**

	Actual 2013	Projected 2014	2015	2016	2017	2018	2019	2020	TOTAL 2014-2020
<b>Net General Fund Debt (000's)</b>									
Beginning Outstanding		\$808,624	\$842,628	\$832,450	\$819,860	\$803,947	\$784,990	\$762,740	
Issuances (1)(2)		\$107,765	\$67,500	\$67,500	\$67,500	\$67,500	\$67,500	\$67,500	\$512,765
Retirements:		73,761	77,677	76,040	75,313	74,307	73,550	70,068	520,717
Existing Debt (1)		0	0	4,050	8,100	12,150	20,250	60,750	
New Debt (2)		\$73,761	\$77,677	\$80,090	\$83,413	\$86,457	\$89,750	\$90,318	\$581,467
Total Retirements		\$34,004	(\$10,177)	(\$12,590)	(\$15,913)	(\$18,957)	(\$22,250)	(\$22,818)	(\$68,702)
Net New Debt									
Ending Outstanding (3)		\$808,624	\$842,628	\$832,450	\$819,860	\$803,947	\$784,990	\$762,740	\$739,922
Existing Debt Service (000's) (1)		\$112,041	\$115,312	\$107,764	\$101,827	\$95,222	\$90,937	\$84,270	
New Debt Service (000's) (2)		0	750	4,025	19,739	27,232	34,481	41,488	
Total Debt Service (000's)		\$112,389	\$112,791	\$119,337	\$119,767	\$121,566	\$122,453	\$125,418	\$125,757
General Fund Unrestricted Revenues (000's)(4)									
Debt Service as a Percent of Revenues		\$1,451,242	\$1,417,223	\$1,443,633	\$1,478,960	\$1,515,182	\$1,552,326	\$1,590,418	\$1,629,881
		7.7%	8.0%	8.3%	8.1%	8.0%	7.9%	7.9%	7.7%
Total Personal Income (000,000's) (5)		67,480	70,180	72,987	75,906	78,943	82,100	85,384	88,800
Debt to Personal Income		1.2%	1.2%	1.1%	1.1%	1.0%	1.0%	0.9%	0.8%
Population (000's) (6)		1,326	1,332	1,337	1,342	1,348	1,353	1,358	1,364
Debt Per Capita		\$610	\$633	\$623	\$611	\$597	\$580	\$561	\$543

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**

	Actual <u>2013</u>	Projected					<u>TOTAL</u> <u>2014-2020</u>
		<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	
Net General Fund Debt (000's)	\$894,910	\$925,737	\$942,366	\$955,634	\$964,485	\$946,948	\$925,648
Beginning Outstanding (7) (8)							
G.O. Issuances	\$107,765	\$67,500	\$67,500	\$67,500	\$67,500	\$67,500	\$67,500
State Guaranteed Issuances (7) (8)	0	30,880	30,880	30,780	7,880	7,880	0
Retirements G.O. Debt	73,761	77,677	80,090	83,413	86,457	89,750	90,318
State Guaranteed Debt (8)	<u>3,177</u>	<u>4,074</u>	<u>5,022</u>	<u>6,016</u>	<u>6,460</u>	<u>6,930</u>	<u>7,214</u>
Total Retirements	\$76,938	\$81,752	\$85,112	\$89,429	\$92,917	\$96,680	\$97,532
Net New Debt	\$30,827	\$16,628	\$13,268	\$8,851	(\$17,537)	(\$21,300)	(\$30,032)
Ending Outstanding	\$894,910	\$925,737	\$942,366	\$955,634	\$964,485	\$946,948	\$925,648
G.O. Debt Service (000's)	\$112,389	\$112,791	\$118,500	\$118,275	\$119,459	\$119,773	\$122,205
State Guaranteed Debt Service (000's) (8)	<u>11,932</u>	<u>7,602</u>	<u>10,175</u>	<u>12,745</u>	<u>15,298</u>	<u>15,867</u>	<u>16,436</u>
Total Debt Service (000's)	124,321	120,393	128,675	131,020	134,758	135,640	138,641
General Fund Unrestricted Revenues (000's) (4)	\$1,451,242	\$1,417,223	\$1,443,633	\$1,443,633	\$1,443,633	\$1,443,633	\$1,443,633
Debt Service as a Percent of Revenues	8.6%	8.5%	8.9%	9.1%	9.3%	9.4%	9.6%
Total Personal Income (000,000's) (5)	\$67,480	\$70,180	\$72,987	\$75,906	\$78,943	\$82,100	\$85,384
Debt to Personal Income	1.3%	1.3%	1.3%	1.3%	1.2%	1.2%	1.1%
Population (000's) (6)	1,326	1,332	1,337	1,342	1,348	1,353	1,358
Debt Per Capita	\$675	\$695	\$705	\$712	\$716	\$700	\$681
							\$657

Footnotes explained on page 2.

