

ELIZABETH A. PEARCE
STATE TREASURER

RETIREMENT DIVISION
TEL: (802) 828-2305
FAX: (802) 828-5182



UNCLAIMED PROPERTY DIVISION
TEL: (802) 828-2407

ACCOUNTING DIVISION
TEL: (802) 828-2301
FAX: (802) 828-2884

STATE OF VERMONT
OFFICE OF THE STATE TREASURER

TO: Governor Phil Scott
Representative Mitzi Johnson, Speaker of the House
Senator Tim Ashe, Senate President Pro Tempore

FROM: Beth Pearce, State Treasurer 

RE: FY19 Budget

DATE: May 18, 2018

Last spring, I wrote a letter, urging a renewed positive and collaborative dialogue among Administration and Legislative leaders to resolve the FY18 budget impasse. As I explained then, Vermont has a well-deserved reputation as a leader in responsible governmental financial management. That reputation has been earned over many years by the hard work and compromise of Administration and Legislative leaders from both sides of the aisle. And it has resulted in Vermont having the highest credit rating in the Northeast, an achievement we can all be proud of, as it produces concrete savings of millions of dollars each and every year benefitting all Vermonters. In short, Vermont is able to do more with less because we work together to maintain our high credit rating.

One year later, it is with regret that I once again write to urge you to work together to resolve yet another budget impasse. I write with an even greater sense of urgency this year, as I am particularly alarmed by Governor Scott's statement at the May 16th press conference, when he declined to assure Vermonters that there will be no shutdown of State government. This is deeply troubling, and it is very much in contrast to the leadership demonstrated last year, when the Governor promised that there would be no shutdown and stated, "I know that's not great negotiating skills to tell people you're willing to put aside your own preference for the benefit of the state, but that's just the way I am as a leader."

I cannot emphasize enough how important it is to avoid a government shutdown. Not only would a shutdown prevent State agencies from providing the critical public services that Vermonters rely on every day, it would result in real and permanent costs, such as foregone and irrecoverable revenues and the additional costs of agency disruption. Even the threat of a shutdown can have adverse consequences, such as reducing the public's faith in government, imposing additional costs to fund a special Legislative session, and jeopardizing the State's high credit rating. Simply stated, no one wins when the government shuts down.

I understand that in the final days of the Legislative session it can be difficult for all sides to find common ground, as frustrations grow and patience can wear thin. But I urge you to look beyond your frustrations and focus on the impacts to Vermonters. Other states have seen credit downgrades after they have not been able to work together to pass budgets. The costs of these failures are borne

by their citizens in the form of higher interest costs and greater difficulty in accessing capital. We do not want to go down that road.

In the balance of this letter, I will focus on the impact of a credit rating decline. Last year, Administration staff asked me what the impacts of a credit rating decline could be. My response, which has been updated to current data, is outlined below.

I would urge both the Administration and the leadership in the Legislature to carefully consider the fiscal impacts of a credit downgrade as you work to resolve the current impasse. It is no secret that the State faces challenges, both in demographics and in slower than expected economic growth. Our margin for error has narrowed. Because of these challenges, it is perhaps more important than ever that we focus on our historical strengths—fiscal discipline, consensus forecasting, and collaborative budgeting. Any rating downgrade will increase costs to the State, bond-issuing agencies and authorities of the State, and Local Governments in material amounts.

Impacts of a Credit Downgrade

The fiscal impacts of a credit downgrade are best summarized in four parts:

- 1) An increase in the bond interest cost paid directly by the State;
- 2) A corresponding increase in bond interest cost for the many State authorities and most Vermont local governments on borrowings that rely on Vermont's bond rating through the extension of a State moral obligation pledge and State aid-intercept provisions, which are directly tied to Vermont's general obligation (GO) bond rating;
- 3) Potential reduction in access to the markets in recessionary environments; and
- 4) Overall reputational risk.

I will address all four below.

1. An Increase in the Cost of Borrowing Directly by the State

The better the bond/credit rating, the lower the borrowing cost, almost all of which is borne by the general fund in the form of debt service. In 2011, we were asked by the General Assembly to estimate the impact of a lower bond rating on the State's borrowing cost. Our response (full response is attached) included the following:

... assuming indicative municipal bond interest rates as of the close of business October 24, if the State sold \$150 million of bonds (approximately the current 2-year authorization for fiscal years 2012 and 2013) that were repaid in level principal amounts of \$7.5 million per year over a 20-year period, then we estimate a downgrade from the State's current triple-A rating to a double-A rating would **increase the State's cost of borrowing by over \$4.1 million** over the life of the bond issue. We estimate that a downgrade from triple-A to single-A would **cost over \$15 million**. (Emphasis added).

Bond market credit spreads change over time and our financial advisor has analyzed the impact based on today's market trends (which reflect a relatively low, but steadily increasing, interest rate environment). Using the same sized bond issuance of \$150 million and today's municipal market data (MMD) spreads, a reduction to a double-A rating would likely result in a \$3.0 million increase in the cost of borrowing and \$7.6 million for a downgrade to a single-A rating. This is per bond issue over the life of the bond issue.

Although we currently anticipate issuing less than \$150 million on a two-year basis (approx. \$132.5 million in FY18-19), we would incur these additional costs going forward as we issue bonds every year. We lost our triple-A bond rating in the 1970s and it took roughly 40 years to regain it. Whether it takes 10, 15 or 20 years, if we were to experience a credit/bond rating downgrade, the result would be substantial increases in the borrowing cost of multiple millions of dollars.

2. A Corresponding Increase in the Cost of Borrowing for the Many Authorities That Rely on Vermont's Bond Rating

A credit/bond rating downgrade would directly increase the borrowing cost for many Vermont State authorities and most Vermont local governments. Vermont provides credit enhancement to a number of State bond issuing authorities in the form of a moral obligation pledge and/or State-aid intercept provisions. These authorities and entities using the moral obligation pledge include: the Vermont Housing Finance Agency (VHFA), the Vermont Municipal Bond Bank (VMBB), the Vermont Student Assistance Corporation (VSAC), and the Vermont Economic Development Authority (VEDA). The State Colleges and the University of Vermont, as well as the current dormant Vermont Telecommunications Authority, also have moral obligation commitments but do not currently have any outstanding debt covered by it. The State Colleges 2017 bond issue of \$67.7 million does not have moral obligation extended to it, however it does make use of the State's revenue intercept program. When rating state authorities with a moral obligation or state aid-intercept program, the ratings agencies start with the State's GO rating and then "notch" the rating downward to establish the authorities' ratings. So, a downgrade to the State's GO rating directly results in downgrades to the authorities' ratings and increased future borrowing costs.

To the extent that ratings for these entities rely on our moral obligation, the cost of their borrowings would also likely increase in the event of a downgrade. As of June 30, 2017, the moral obligation commitments for these entities stands at \$1,092.1 million although actual debt outstanding is \$838.2 million.

In terms of local governments, the Vermont Municipal Bond Bank (VMBB) has the largest single commitment of State credit enhancement, again in the form of moral obligation pledge and State aid-intercept. The current amount outstanding is \$592.1 million. A State rating downgrade would increase the relative cost for local governments' future borrowing.

The bottom line—Vermont's credit/bond rating impacts the cost of financing affordable housing, public schools, student debt, economic development, and the bricks and mortar that build our municipal infrastructure. Any downgrade to our current rating will increase costs of these services to Vermonters.

3. Potential Reduction in Access to the Markets in Recessional Environments

During the height of the Great Recession consumers had trouble accessing credit, even at higher interest rates. Many municipalities and states with weaker credit ratings had difficulty accessing the capital market for cash flow borrowings and long-term debt. Housing agencies and others experienced an inability to sell their bonds. Investors bypassed lower rated tax-exempt bonds and other debt securities for ultra-safe securities. Vermont with its high ratings did not experience adverse access to the markets during the Great Recession.

While this was an extreme event, a market cycle decline could put more pressure on lower rated bonds.

4. Reputational Risk

Vermont has a long history of collaborative government, use of consensus estimates and proactive budgeting. Whether real or not, the perception of a more divisive process is not good for Vermont's credit/bond ratings and the State's image as a leader in responsible governmental financial management.

Conclusion

It is imperative that as State leaders, we do everything within our power to avoid both a government shutdown and a credit downgrade. It bears repeating that the ratings agencies have always given Vermont high marks on its governance and strong fiscal management. The State's consensus revenue forecasting and consensus budget gap analysis, along with its practice of "proactively managing its budget," have been cited by the three rating agencies as credit positives for the State.

I believe the recent dialogue surrounding the FY19 budget is not consistent with the State's history of collaborative budgeting and that the current impasse would likely be viewed in a negative light in any review of our credit/bond rating. I am also troubled by the idea, first raised late in the session, to fund government under a continuing resolution beginning July 1st. Such practices can lead to institutional gridlock, and they can impede the collaboration necessary to pass annual budgets in a timely manner. And they are at odds with Vermont's historical strengths. Let's recommit to working together to take care of this now and minimize any future financial risks.

As I noted in an April budgeting memorandum (attached), maintaining our reserves, and even increasing them, would go a long way to improving the long-term financial health of the State. As I have also stated, paying down our pension liabilities is smart financing, reducing the long-term cost to the taxpayer. In addition to providing long-term savings to Vermonters, these are fiscally prudent measures that can help the State navigate future downturns in the business cycle.

The issues surrounding the completion of the FY19 budget are of critical importance to the State. Vermonters and the rating agencies are watching. I call on the Administration and leadership in the House and Senate to work together to resolve any outstanding issues quickly through renewed dialogue and collaboration.

I, along with all Vermonters, appreciate the efforts of the Administration and the Legislature to date. This is not easy work, and I recognize that. To the extent we can be of service, my staff and I are available to provide assistance in any way that we can.

cc: Jason Gibbs, Chief of Staff, Office of Governor Phil Scott
Susanne Young, Secretary of Administration
Brad Ferland, Deputy Secretary of Administration
Adam Greshin, Commissioner, Department of Finance and Management
Stephen Klein, Chief Fiscal Officer, Joint Fiscal Office

ELIZABETH A. PEARCE
STATE TREASURER

RETIREMENT DIVISION
TEL: (802) 828-2305
FAX: (802) 828-5182



UNCLAIMED PROPERTY DIVISION
TEL: (802) 828-2407

ACCOUNTING DIVISION
TEL: (802) 828-2301
FAX: (802) 828-2884

STATE OF VERMONT
OFFICE OF THE STATE TREASURER

TO: Mitzi Johnson, Speaker of the House
Tim Ashe, President Pro Tempore
Representative Kitty Toll, Chair, House Committee on Appropriations
Senator Jane Kitchel, Chair, Senate Committee on Appropriations

FROM: Beth Pearce, State Treasurer 

DATE: April 20, 2018

RE: Fiscal Year 2019 Budget Recommendations

I want to thank the General Assembly for its proactive approach on pensions, stabilization reserves, capital budgets and bonds and to reiterate the Treasurer's Office recommendations with respect to these issues. I also want to thank the House for including additional funds for pensions and reserves in the appropriations bill. This is proactive management of our finances at its best and builds upon past efforts by the General Assembly including the adoption of a biennial capital budget appropriation, statutory changes to the use of bond premium, re-appropriation of residual balances in capital projects, fully funding the recommended pension contributions, and maintaining full stabilization reserves. I know you are all working to accommodate multiple needs and appreciate your continued commitment to proactive long-term financial discipline. Your collective actions have contributed to maintaining our high bond rating and contributed to improving the long-term financial position of the state on behalf of taxpayers.

The items listed below, reflect recommendations, made by me and my staff in testimony at various committees in both the House and the Senate. We believe the priorities we have outlined below will help contribute to a healthy financial future for all Vermonters.

1. Fully funding the General, Transportation, and Education Fund Budget Stabilization Reserves at the 5% statutory maximum. More is Needed.

Full funding of all of our budgetary stabilization reserves up to their statutory levels and increasing other reserves is critical both for Vermont's financial health and its bond ratings. As you have heard from me on many occasions, we have the highest bond rating in the Northeast. These were reaffirmed when the Governor Scott and I, and administration officials met with the rating agencies in August. That rating provides access to the markets, lowers the cost of bonding and supports to the credit ratings of state authorities such as the Vermont Municipal Bond Bank, the Vermont Student Assistance Corporation, the Vermont Economic Development Authority and the Vermont Housing Finance Agency. The rating agencies cite Vermont's strong financial management, conservative debt management practices, maintenance of budgetary reserves at their statutory limits, and the collaborative effort undertaken by the executive and legislative branches to annually balance the budget. In the rating agencies own words:

“Vermont's conservative fiscal management and healthy financial reserves are important strengths for the state”

-Moody's Investor Service, Credit Opinion, State of Vermont, August 10, 2017.

“Although we do not envision it at this time, given Vermont's history of proactively managing the state budget and recent actions to address retirement liabilities, substantial deterioration of budget reserves or a deteriorating liability position could negatively pressure the rating.”

-S&P, Ratings Direct Vermont; General Obligation, August 11, 2017.

I believe failure to fully fund the reserves would be the most immediate “red flag,” signaling financial distress as rating agencies consistently list this as one of their top criteria.

Separate from the credit rating issues, adequate reserves are just good budget practice. The reserves cushion the State's day-to-day operating cash needs and have helped the State avoid cash flow borrowing for operations (another “red flag”). Specifically, the State has not borrowed for cash flow purposes since 2004. This is looked on by the rating agencies as a sign of fiscal health. Moreover, borrowing has an interest cost associated with it that must ultimately be paid by the taxpayer. Finally, the reserves are “one-time” funds; once expended, they must be replenished.

Over the years, the Treasurer's Office has recommended increases in reserves and JFO has provided data demonstrating that Vermont's statutory 5% reserves are at levels behind many states. This past year, Moody's published a report, “Stress-Testing States”, and looked at a number of scenarios in a hypothetical recessionary downturn and noted that “in order to weather the next recession without having to resort to potentially disruptive fiscal measures, an average state would need to have more than 10% of its budget put away in reserve”, and noted Vermont's mix of revenues and spending would likely require more. As Moody's noted, they are not projecting the timing or severity of a recession but did note that downturns are an inevitable part of the business cycle. Vermont needs to be prepared. We thank the House for including efforts to strengthen our reserves in the appropriations bill and urge the Senate to continue to add its support to this effort.

One area of potential concern relates to Education Fund reserves. The rating agencies are aware that the FY2018 stabilization reserve is projected to fall below 5% but expect that reserves will be fully restored next year.

Fitch included the following in its ratings report:

“For the education fund, the enacted fiscal 2018 budget includes draws on unallocated balances from prior years as well as on the budget stabilization reserve to fund a shift in the teachers' pension normal cost to the education fund from the general fund. The budget stabilization reserve balance is budgeted to decline to approximately \$25 million, or 3.6% of revenues. ... The governor also intends to recommend in his fiscal 2019 executive budget that the education fund budget stabilization reserve be restored to its 5% statutory maximum.”¹

-Fitch Ratings, August 11, 2017

While the authority exists to lower the reserve as low as 3.5%, it is important that, as you and the Administration deliberate on the budget, the Education Fund remain fully funded at the 5% maximum. I understand the budgetary pressures in this fund, but full funding of reserves is important as it cushions the fund and the participating schools during market downturns and it is critical to maintaining our ratings.

Also, H.911 incorporates a concept that would eliminate the general fund transfer to the education fund. This could have the effect of lowering the General Fund budget which would then lower the dollar amount needed

¹ In Governor's FY19 budget, the Governor's BAA recommend was at \$26.4 million for FY18.

to meet the 5% reserve. I would recommend that the general fund reserves not be reduced and essentially be “made whole” and the reserve percentage be revised upward accordingly. Any reduction to reserves levels would likely be viewed as a credit negative and is counter to the above cited need to increase our reserve levels.

2. Fully funding 100% of the annual actuarially required contributions/actuarially determined employer contributions (ARC/ADEC) for the State Employees’ and State Teachers’ Retirement Funds.

The General Assembly has fully funded the state and teacher pension systems for the past several years. As you know, the state and teacher systems suffered setbacks in its funding of its pension plans with the Great Recession, as did pension plans across the county. Workforce decisions and, especially in the case of the teachers’ system, historical underfunding also adversely affected the funding status of these plans. Both the state employees and teachers worked with the Treasurer’s Office, Administration and the General Assembly to make changes in pension and health care. As a result, changes were made that saved, and continue to save, millions each year, and are expected to total over \$1.3 billion by 2038, including healthcare savings noted below. These changes include increased contributions by state employees and teachers, changes to health care and pushing out the age for normal retirement.

There are no quick fixes; we must maintain continued policies for full actuarial funding of the pensions plans and move to prefunding strategies for employee health care. This results in the best value for both employees and other taxpayers.

Every dollar not paid in the past costs the taxpayers more in the long run. Conversely, every additional dollar added, over and above the recommended ARC/ADEC, will save the taxpayer. The House budget includes an additional \$10 million, over and above the actuarial recommendation for teacher pensions. This is a great step forward and we estimate this will save taxpayers \$29 million in interest.

We recognize the value of an informed, disciplined and proactive approach to pensions and, working with the Administration, the Trustee Boards, and employee groups will be conducting a comprehensive risk management and stress test of the pensions, employing an actuarial firm, using a stochastic approach to look at future costs informed by variables under different economic and demographic scenarios. I appreciate the Administration’s commitment to work with us on this collaborative project. The recently released Actuarial Standard of practice, ASOP No. 51 *Assessment and Disclosures of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions*, will require actuaries to identify and assess the risks that may significantly affect a plan’s future financial condition. Per the ASOP, a risk assessment is to be performed in conjunction with a funding valuation or a pricing valuation. The standard is effective for valuations with a measurement date on or after November 1, 2018, which would be the state’s June 30, 2019 actuarial valuation. We will be early implementing this requirement, using the FY17 valuations as a starting point and expect to work on this project over the summer.

3. Fully funding the General Fund contribution to the Retired Teachers’ Health and Medical Benefits Fund.

We have implemented a series of steps over the past several years that have lowered health care costs for the teachers’ retirement system, including a tiered retiree health care subsidy based on years of service; the conversion to the Employer Group Waiver Plan (EGWP); the use of the predecessor Retiree Drug Subsidy; and taking advantage of one-time federal dollars through the Early Retirement Reinsurance Program (ERRP). These steps have saved millions, although overall health care costs continue to rise for all Vermonters, including retirees.

In 2014, a collaborative effort took place involving the State Treasurer's Office, the Administration, General Assembly, the Vermont NEA and other educational constituencies, and a long-term financial remedy was adopted. A Retired Teachers' Health and Medical Benefit Fund was established that is dedicated to exclusively paying retired teacher health and medical benefits. A variety of funding sources, including the general fund, as well as commitments by employees and employers was adopted. By paying for these services on a current basis rather than putting them on the credit card, it is estimated that the State has saved millions each year and will in aggregate save \$480 million in interest costs through 2038, while at the same time providing for retirement security for the teachers' systems. I want to thank the General Assembly and all our partners for taking this important step. It was not easy, especially in a tough budget year, but the commitment to a long-term funding plan is ultimately in the interest of both teachers and other taxpayers.

We are pleased to report that the plan is working, and we expect to pay off an interfund loan more quickly than scheduled, paying premiums on a current basis without borrowings and expect that several years into the future, Vermont will begin to accrue assets reaching a point where "prefunding" can begin. Once we have achieved annual prefunding, we will be able to reduce our liabilities on our books by as much as 43%. After the close of this fiscal year, we will provide a full report on these initiatives.

On the state retiree health insurance side, no prefunding plan is in place. While we are currently paying for premiums on a "pay-go basis", a longer-term strategy to achieve prefunding is needed. The State, and its taxpayers, would be greatly served, by accelerating plans for prefunding of both the teacher's and state systems and directing resources to this end.

4. Maintain capital appropriations at the Level recommended by CDAAC. Reduce our reliance on debt.

Each year the capital debt affordability committee (CDAAC) completes an annual review of the size and affordability of the State tax-supported general obligation debt and submits to the Governor and to the General Assembly an estimate of the maximum amount of new long-term general obligation debt that prudently may be authorized. Several years ago, we moved to biannual recommendation to provide a bit of a longer view. This has improved planning and coordination. Over the past two biennium, we have reduced the recommended bond authorization levels by approximately 18%. This is based on our analysis of certain affordability indicators (debt per capita, debt as a percentage of personal income, debt service as a percent of revenues) and a review of our standing vis-vis our peer triple-A states. While I cannot speak for all the CDAAC members, I believe that we will likely see further reductions in debt authorization and that we need to reduce our reliance on debt.

Bonding is a financing tool that captures or leverages the value of a stream of revenue and then paying over time for the current use of those future revenues. Debt must be repaid with interest and does not replace the need for revenues, from existing or new sources, to pay for the debt service.

The CDAAC recommendation is advisory but the Governor and General Assembly have always used the recommendation as the appropriated amount since the inception of CDAAC in 1990. This is a very important factor in the state's fiscal discipline and is highlighted by the rating agencies. I ask that the General Assembly continue with that practice.

I also want to thank both the House and Senate Institutions Committees and chairs Alice Emmons and Peg Flory for all their hard work this year and in past years, working with the Administration and the Treasurer's Office, to make significant improvements in the capital planning and bonding process. I am going to miss Peg as she moves on to other pursuits. Thank you Peg for your service.

In conclusion, the rating agencies frequently cite Vermont's strong financial management, consensus revenue estimates, consensus budget gap analysis, conservative debt management, and the ability to address budgetary

issues as positive factors in the ratings. The rating agencies clearly recognize Vermont's collaborative approach to getting things done and I am confident this will continue through this and future legislative cycles.

I appreciate the work that both the Administration and the General Assembly must accomplish to achieve a balanced budget that meets our responsibilities to our citizens in the most cost-effective way possible. I am also very sensitive to the difficult trade-offs facing you as decision-makers. As this session is reaching a close, our office remains available to assist.

Thank you for all your hard work and efforts.

cc: Susanne Young, Secretary of Administration
Adam Greshin, Commissioner of Finance and Management
Stephen Klein, Chief Fiscal Officer
Senator Peg Flory
Representative Alice Emmons



STATE OF VERMONT
OFFICE OF THE STATE TREASURER

TO: House Committee on Corrections and Institutions
Senate Committee on Institutions

FROM: Beth Pearce, State Treasurer
Steve Wisloski, Deputy State Treasurer

DATE: October 27, 2011

RE: Relationship between Vermont's Credit Rating and Cost of Borrowing

During our testimony to the Committees on October 24, Representative Lorber requested that the Treasurer's Office provide an analysis of the impact of a credit rating downgrade on Vermont's cost of borrowing. This memorandum reviews the results of that analysis.

To summarize, assuming indicative municipal bond interest rates as of the close of business October 24, if the State sold \$150 million of bonds (approximately the current 2-year authorization for fiscal years 2012 and 2013) that were repaid in level principal amounts of \$7.5 million per year over a 20-year period, then we estimate a downgrade from the State's current triple-A rating to a double-A rating would increase the State's cost of borrowing by over \$4.1 million over the life of the bond issue. We estimate that a downgrade from triple-A to single-A would cost over \$15 million.

We also observed during our testimony that today's interest rates, which range from 0.25% (in one year) to 3.5% (in 20 years) for a triple-A rating, are near record lows. We stated our belief that if interest rates increased to historically more normal levels, then borrowing costs associated with lower ratings would increase correspondingly. Specifically, 20-year historical average interest rates range from 2.5% (one year) to 5% (20 years) for a triple-A rating. If the current ratios between triple-A, double-A and single-A rate levels remained somewhat consistent at higher rate levels, then we estimate that the corresponding increased interest costs could be almost \$7 million for a double-A rating, and over \$25 million for a single-A rating.

Finally, it should be noted that the State issues bonds on an ongoing basis, and total increased borrowing costs across multiple bond issues will be substantially larger than the above dollar amounts.

We have included our analyses of the increased interest costs for both the current market and 20-year average scenarios as attachments to this memorandum.

Please feel free to contact either of us with any questions.

State of Vermont
Impact of Credit Rating on Interest Rates and Costs for a \$150 Million Bond Issue
Using Market Rates as of October 24, 2011*

Fiscal Year	Principal Amount	AAA Rating		AA Rating		A Rating	
		Interest Rate	Interest Cost	Interest Rate	Interest Cost	Interest Rate	Interest Cost
6/30/2012	7,500,000	0.250%	3,335,250	0.300%	3,681,750	0.700%	4,663,500
6/30/2013	7,500,000	0.450%	3,316,500	0.540%	3,659,250	1.000%	4,611,000
6/30/2014	7,500,000	0.680%	3,282,750	0.830%	3,618,750	1.360%	4,536,000
6/30/2015	7,500,000	1.000%	3,231,750	1.180%	3,556,500	1.760%	4,434,000
6/30/2016	7,500,000	1.320%	3,156,750	1.510%	3,468,000	2.140%	4,302,000
6/30/2017	7,500,000	1.550%	3,057,750	1.770%	3,354,750	2.400%	4,141,500
6/30/2018	7,500,000	1.790%	2,941,500	2.020%	3,222,000	2.680%	3,961,500
6/30/2019	7,500,000	2.070%	2,807,250	2.310%	3,070,500	3.010%	3,760,500
6/30/2020	7,500,000	2.310%	2,652,000	2.560%	2,897,250	3.280%	3,534,750
6/30/2021	7,500,000	2.430%	2,478,750	2.690%	2,705,250	3.410%	3,288,750
6/30/2022	7,500,000	2.550%	2,296,500	2.820%	2,503,500	3.540%	3,033,000
6/30/2023	7,500,000	2.680%	2,105,250	2.950%	2,292,000	3.670%	2,767,500
6/30/2024	7,500,000	2.810%	1,904,250	3.080%	2,070,750	3.800%	2,492,250
6/30/2025	7,500,000	2.930%	1,693,500	3.200%	1,839,750	3.920%	2,207,250
6/30/2026	7,500,000	3.040%	1,473,750	3.320%	1,599,750	4.030%	1,913,250
6/30/2027	7,500,000	3.140%	1,245,750	3.420%	1,350,750	4.130%	1,611,000
6/30/2028	7,500,000	3.240%	1,010,250	3.520%	1,094,250	4.230%	1,301,250
6/30/2029	7,500,000	3.340%	767,250	3.620%	830,250	4.320%	984,000
6/30/2030	7,500,000	3.410%	516,750	3.690%	558,750	4.370%	660,000
6/30/2031	7,500,000	3.480%	261,000	3.760%	282,000	4.430%	332,250
150,000,000		43,534,500		47,655,750		58,535,250	
				AA Rating:		A Rating:	
Cost Increase vs. AAA Rating:				4,121,250		15,000,750	

* Based upon Municipal Market Data (MMD) AAA, AA and A generic yield curves.

State of Vermont
Impact of Credit Rating on Interest Rates and Costs for a \$150 Million Bond Issue
Using Rates Implied By Current Ratios and 20-Year Historical Average Triple-A Rates*

Fiscal Year	Principal Amount	AAA Rating		AA Rating		A Rating		
		Interest Rate	Interest Cost	Implied Rate	Interest Cost	Implied Rate	Interest Cost	
6/30/2012	7,500,000	2.569%	6,139,952	3.083%	6,851,412	7.195%	9,157,484	
6/30/2013	7,500,000	2.916%	5,947,240	3.499%	6,620,157	6.480%	8,617,889	
6/30/2014	7,500,000	3.143%	5,728,544	3.837%	6,357,723	6.287%	8,131,899	
6/30/2015	7,500,000	3.341%	5,492,796	3.942%	6,069,972	5.880%	7,660,403	
6/30/2016	7,500,000	3.520%	5,242,218	4.026%	5,774,289	5.706%	7,219,385	
6/30/2017	7,500,000	3.686%	4,978,246	4.209%	5,472,321	5.707%	6,791,431	
6/30/2018	7,500,000	3.836%	4,701,822	4.329%	5,156,663	5.744%	6,363,420	
6/30/2019	7,500,000	3.969%	4,414,092	4.430%	4,831,962	5.772%	5,932,629	
6/30/2020	7,500,000	4.084%	4,116,389	4.526%	4,499,743	5.799%	5,499,737	
6/30/2021	7,500,000	4.188%	3,810,104	4.636%	4,160,310	5.877%	5,064,838	
6/30/2022	7,500,000	4.298%	3,495,985	4.754%	3,812,582	5.967%	4,624,038	
6/30/2023	7,500,000	4.402%	3,173,598	4.845%	3,456,060	6.028%	4,176,489	
6/30/2024	7,500,000	4.497%	2,843,473	4.929%	3,092,676	6.082%	3,724,414	
6/30/2025	7,500,000	4.584%	2,506,171	5.006%	2,722,964	6.133%	3,268,276	
6/30/2026	7,500,000	4.659%	2,162,372	5.088%	2,347,484	6.176%	2,808,314	
6/30/2027	7,500,000	4.727%	1,812,945	5.149%	1,965,872	6.217%	2,345,092	
6/30/2028	7,500,000	4.787%	1,458,421	5.201%	1,579,735	6.250%	1,878,792	
6/30/2029	7,500,000	4.841%	1,099,403	5.247%	1,189,691	6.261%	1,410,074	
6/30/2030	7,500,000	4.891%	736,334	5.292%	796,185	6.268%	940,476	
6/30/2031	7,500,000	4.927%	369,521	5.323%	399,252	6.272%	470,396	
150,000,000			70,229,623		77,157,054		96,085,475	
				AA Rating:			A Rating:	
				Cost Increase vs. AAA Rating:	6,927,431			25,855,852

* Based upon monthly, end-of-month MMD AAA generic yield curves from 11/30/91 to 9/30/11.