



Office of the President

February 2, 2007

Daniel Mark Fogel

From: Daniel Mark Fogel

To: Members of the Board of Trustees

Re: **Strategic Financial Plan Modeling for the February 2007 Board Meeting**

The updated Strategic Financial Plan that follows, along with its summary report, has been informed by the deliberations of the Budget, Finance, and Investment Committee on January 19. Many thanks are due to the members of the BFI committee for their leadership, hard work, and high-level analytic approach to the continuing refinement of the SFP, and to Mike Gower, Ted Winfield, and the rest of the professional staff in the Office of Financial Analysis and Budgeting for the expertise, insight, and countless hours they have invested in the ongoing development of what has become a critical modeling tool for UVM.

The analysis and data strongly support the current iteration of the model, and more particularly the option identified as SFP 5.0-B. We have achieved moderate and demonstrably competitive total student costs after financial aid with annual tuition increases, over the course of the last ten years, that are significantly below those at both public and private peer institutions. The primary source of the increased operating revenues that have allowed us to advance the University has been steep enrollment growth. That pace of enrollment growth cannot be sustained indefinitely. We must therefore find other ways not only to maintain the purchasing power of revenues against inflation but also to support levels of investment that will allow for responsible stewardship and development of our physical plant at adequate competitive levels—a key to maintaining the scale and quality of enrollment required to fulfill the plan.

In updating the SFP for our February meeting, we have drawn on what we have understood to be an emerging consensus on the BFI Committee. Further analysis and reflection have led us to conclude that it would not be prudent at this time either to lower the financial aid growth assumption in

the model or to increase the assumption about the flow to the bottom line of public dollars (state and federal) or of development dollars and investment income. Accordingly, we have made two primary adjustments in this version of the SFP, modeling tuition increases at 6% annually and reducing the number and dollar total of capital projects in the Strategic Capital Plan by some \$92 million below the projects incorporated in SFP 5.0 when that version of the plan was presented to the Board in November.

Even with these adjustments, which add some \$144 million in operating revenues and expenditures over the ten-year course of the model, current debt policy limits will allow us to address at most 61% of the pressing capital needs of the University represented in the reduced list of projects. We will therefore be faced with hard choices. First, at least provisionally, we must defer beyond the ten-year planning horizon some projects that are arguably critical to the mission and advance of the University and to the State of Vermont. At the same time, we must continue to consider the comparative risks of altered policy limits against those of significantly curtailing an invest-and-grow strategy that has brought unprecedented success to the University of Vermont.

This coming fall will mark the second anniversary of our observation that the great work that lies before the Board of Trustees is the squaring of the circle on the Strategic Financial Plan so that the advance of the vision and mission of UVM can be sustained within the fiduciary responsibilities of the Board. I believe that we have made extraordinary progress together through a steadily deepening and ever more powerful analysis of the potentials, risks, and opportunities that lie before us and of the complex interactions of multiple planning parameters that are essential to the fiscal and programmatic success of the University. We look forward with great optimism to the continuation of this important work.

Strategic Financial Plan 5.0-A and 5.0B – Update Report February 1, 2007

Introduction:

This report summarizes the work-in-progress of reframing Version 5.0 of the Strategic Financial Plan (SFP 5.0) since the annual update at the November 11, 2006 meeting of the Board of Trustees. That version included \$525M of projects in a Strategic Capital Plan (SCP) that had been built over the course of the summer and fall of 2006. The SCP required substantial growth in projected debt, resulting in projected debt ratios well beyond current policy levels.

In his communication to trustees, President Fogel observed of SFP 5.0:

The challenge is obvious. As the Version 5.0 financial statements and resulting debt ratios attest, it will not be possible or appropriate to pursue the capital plan at the scale and pace represented. Accordingly, we will need to refine and amend the timeline for the capital projects. We also must come to grips with the central role that tuition revenue plays as the single largest source of operating income for the University, necessitating a thorough analysis of the benefits and risks of projecting tuition increases above the 4% level in the plan after 2010.

In addition, at the November meeting of the Budget, Finance, and Investment (BFI) Committee, trustees identified a range of data, particularly related to student costs both at UVM and its peer institutions, which would be relevant for further assessment of the SFP.

The BFI Committee asked three broad questions:

- What adjustments to the SFP are needed to fit within the current debt ratio policies?
- How would the fiscal strength of the University as modeled in the SFP be affected by:
 - An amended capital plan?
 - A variety of tuition levels?
 - Alternate scenarios for financial aid levels?
 - More aggressive projections of private fund-raising?
- On the basis of the analysis required to address these questions, what actions and decisions are needed to proceed with the important work of the University?

These questions led us to work on two parallel paths:

- a. An extensive assessment and review at the BFI meeting on January 19, 2007 of peer data and of sensitivity in the SFP for tuition, financial aid, and fundraising.
- b. Reassessment of the Strategic Capital Plan to review priorities and timelines.

Summary of findings:

In order to present a forecast that comes close to meeting the current debt ratio targets, the following elements were adjusted:

1. From the discussions at the January 19, 2007 BFI meeting, the SFP was recast with a 6% tuition increase per year for the ten-year period. Financial aid growth is maintained at SFP 5.0 levels (rather than reduced, an option that was considered), and there is no change in the level of support from private fund-raising within the plan.
2. The SCP was reduced from a total of \$525M to a total of \$433M, with spending spread more evenly over the period from FY 2008 to 2012.
3. The overall model was then rerun (SFP 5.0-A). Net expendable assets increased in version 5.0-A by a total of nearly \$236M over the forecast period, compared to a total increase of \$159M in Version 5.0.
4. With no other changes, this revised forecast still projects debt ratios out of compliance with current debt policy.
5. In order to hew much more closely to the debt ratio policy levels, borrowing for capital growth was reduced to roughly \$236M to match the projected growth in net expendable assets. This level of debt is about 61% of the total debt projected in the revised Strategic Capital Plan to fully fund the capital spending of \$433M.
6. By revising the debt level downward to this 61% point, and rerunning the model (SFP 5.0-B), the debt ratios come close to the existing debt policy levels throughout the period.

Background and Assumptions:

Strategic Capital Plan Amendment

Among the challenges identified in the November review of the SFP was the combined impact of the scale of capital requirements (\$525M of overall spending, with \$470M of related borrowing) and of the proposed timing of those requirements, with the heaviest spending occurring in FY 2008-FY 2010. Chart 1 shows the capital spending picture that was defined in version 5.0.

During December and January, Vice President Gower led a detailed reassessment of the projects and their timing to model a plausible scenario demonstrating how project requirements could be spread. This reduced the higher levels of spending in the early years of the model and extended spending beyond 2016. Such a scenario is presented as a provisional, amended SCP (Chart 2). This scenario totals \$433M of expenditures, with \$43M coming from external sources (gifts, state and federal) and \$390M from borrowing. This amended capital picture then became the base from which to recalculate the interconnected elements of the SFP.

Tuition, Financial Aid and Development

A major goal of the January 19, 2007 BFI meeting was to assess the options and impact of changing major revenue assumptions that influence the SFP. The Committee wanted to understand the effects that changes in assumptions on tuition, student financial aid, and development might have. Assessing these items involved data about the University and a series of peer institutions. Based on a thorough review of the data presented to the Committee and on the subsequent Committee discussion of the analysis and its implications, the following assumptions were incorporated into the current update of the Strategic Financial plan:

- Tuition increases have been set at 6% for the full period of the forecast. This level of tuition increase appears to fall within the moderate range of both public and private peers. Further, assuming the Higher Education Price Index level of inflation in recent years continues, lower levels of tuition increases will put the University farther and farther behind in its ability to cover likely cost increases.
- Financial aid growth assumptions remain unchanged from Version 5.0, starting at a current discount level of 32% of tuition and increasing to 38% of tuition by FY 2016. The BFI committee did consider the option of reducing the growth rate of financial aid and capping that level at 35%, but with 6% tuition increases and intensifying competition for a declining demographic of high school graduates in the northeast, tightening of financial aid does not seem appropriate or prudent. It will, no doubt, be critical to assess the need for and impact of financial aid on an ongoing basis; however, to presume financial benefit in the forecast from a reduction in the assumed rate of growth of financial aid is unrealistic.
- The impact of development activity also remains unchanged in the forecast. Aggressive efforts to strengthen capital development success are critical and must proceed, but to assume that success more aggressively in the model is also not prudent. Accordingly, the scale and timing of development impact is left at the same level as was framed in SFP 5.0

Calculation of Net Expendable Assets

Growth in expendable net assets becomes the reasonable measure of the growth level for added borrowing. If borrowing occurs at a level that pushes the viability ratio of debt to expendable net assets below the stipulated policy limit (≥ 1.0), then the debt burden ratio will likely also fall out of compliance with the current policy limit ($\leq 5.0\%$). By combining the assumptions listed above (the new SCP scenario and the increase of tuition levels to 6% throughout the forecast) and rerunning the model (version 5.0-A), it was possible to update the overall changes in net assets. Net expendable assets grow by just under \$236M. At the same time, borrowing grows by \$390M. Without any other adjustments, this overall scenario modeling still produces debt ratios that are outside of policy levels (Chart 3). Effectively this means that despite improving revenue with the

growth in tuition associated with a 6% assumption, \$390M of borrowing is more than can be supported by the growth in expendable net assets at current policy limits.

Matching Net Expendable Assets and Additional Debt Level

To produce a plan at or close to the debt ratio policy levels while maintaining the revenue and expense assumptions that have been defined in Version 5.0 and modified as noted above, we further modified the borrowing levels. Version 5.0-B modifies the borrowing level down to \$236M, matching the level of the growth of expendable net assets (Chart 4). This change represents borrowing at 61% of the \$390M level defined in the revised SCP (Chart 2). If the priority and scale of capital projects remained unchanged within a constant debt policy, higher priority projects (up to \$236M) could move ahead. Other projects would either need to wait, be supported by alternate funding to be raised, or be foregone.

Chart 5 shows the relative capital spending patterns implicit in the three comparison points: 1) version 5.0 as presented in November; 2) version 5.0-A with a modified capital plan of \$390M in borrowing; and 3) version 5.0-B targeted at 61% of that level. The line graph in Chart 5 shows that SFP 5.0A and 5.0-B represent not only a reduced level of spending compared to SFP 5.0 but also a more gradually phased timetable. The table in Chart 5 presents a summary of total capital project spending, other sources of funding, and projected debt for each of the three scenarios.

Chart 4 summarizes the debt ratios resulting from the version 5.0-B calculation. Although the ratios are not precisely in compliance with the overall policy levels for each of the years, the point is to demonstrate the relative level of capital spending that would be available at the current debt policy levels. More precise modifications and a detailed review of the priority, the timing, and the level of capital projects would be needed for any more precise review.

Conclusions/Assessment:

Through these analytic steps and the consequent modeling, a picture has emerged of the types of amendments to the SFP that would be needed to remain broadly within the current debt ratio policies. It is now possible to discuss and assess the implications of this picture, what elements might be accepted, and what elements might be changed to allow continued progress toward the overall success of the University. Further, it is also important to assess what judgments are needed in the near future and what judgments can be made later as actual experience unfolds.

What would be the impact if projected capital spending were limited to the levels of growth in expendable net assets as now forecast? SFP 5.0-B gives one version of this picture. In this provisional model, there would be capital support for many important projects, but there might not be resources for many other important projects from the list. Many important investments in the arts, sciences, infrastructure, and programmatic support would be pushed outside the forecast period. Such looming choices will

necessitate careful review of priorities, and there will doubtless be adjustments in priorities and project phasing over time to stay within the available limits. Regardless of how the priorities are ordered, however, many projects could not be undertaken within current policy limits under SFP 5.0-B, some arguably mission-critical, others perhaps less so. At what point do such limitations impinge seriously on the future of the University?

What other options exist that might materially improve the ability of the plan to support the mission of the University? The work of the last two months has shown that significant benefit accrues from a higher tuition level. Dramatic additional impact from further tuition changes beyond those modeled in SFP 5.0-B would have broad and potentially challenging consequences, and we believe it is unwise at this time to model tuition increases at higher levels. Other revenue sources (State appropriations, reductions in financial aid) have smaller overall impact and are unlikely to produce substantial change in the model. Return on endowment investment and additional philanthropic gifts are the primary sources of growth that could improve the balance sheet positively by increasing net expendable assets. The underlying endowment base and gifts for all purposes are linked to development activity. At least for the near term, changing the speed and scale of this activity is difficult. Return on investment is critical and is being well-managed; dramatically better returns are unlikely. Although continued focused development activity is critical and could be helpful, aggressive projections of improved fund-raising and investment performance would not provide a sound basis for prudent planning of growth without much more planning and research.

What would be the implications of amending the debt policies to allow for a somewhat higher debt level? Given continued strong enrollment and program growth, external financial markets should continue to look favorably on the financial position of the University without lowering the current solid bond rating or limiting access to debt. Determining if accessing additional debt beyond current levels is appropriate is a critical judgment that trustees face. Might it be appropriate to have a different policy for several years to allow for higher borrowing to match larger project spending needs during such a period? What about a longer-term policy shift to create capacity for the funding of additional, mission-critical projects?

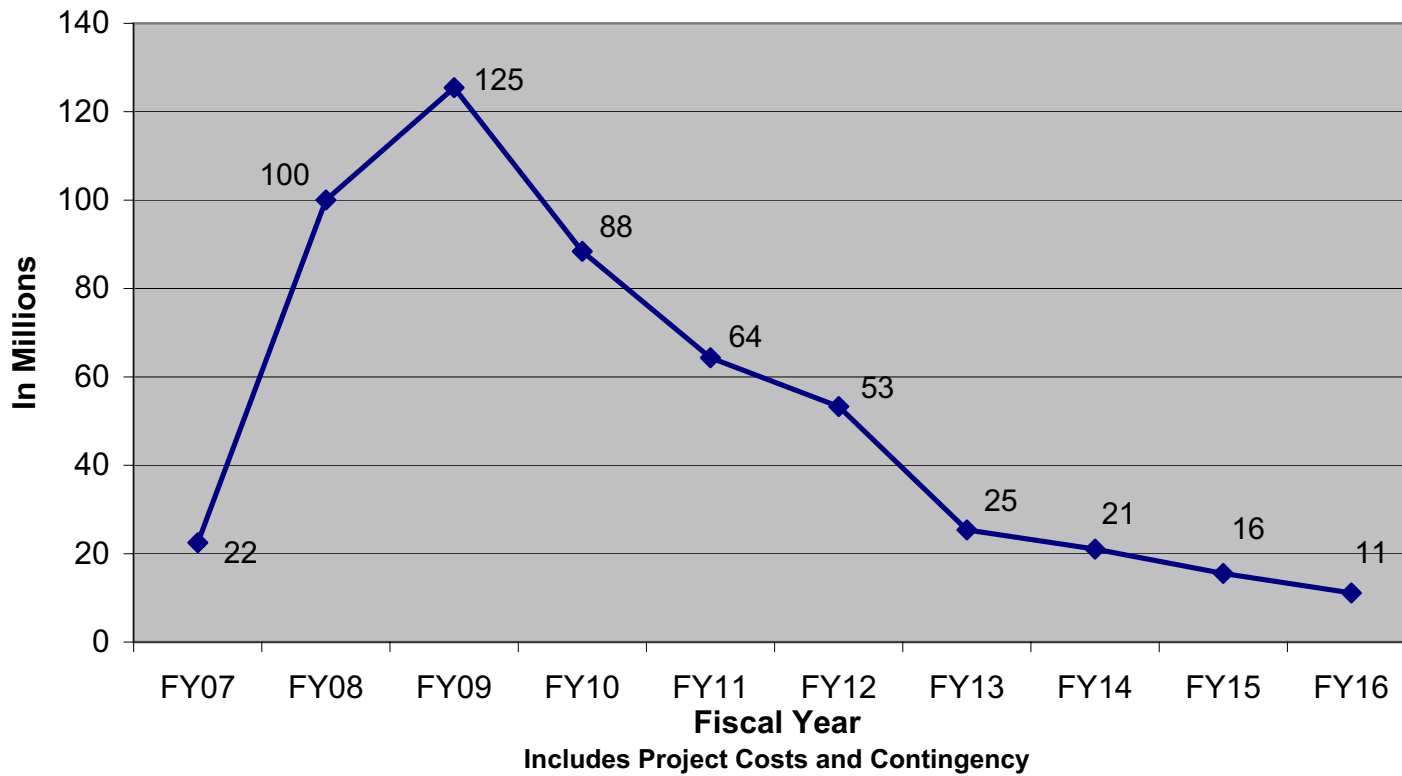
The time is approaching when these questions must be resolved. In the near term (the February, and May Board meetings), the upcoming capital requests fit within UVM's current capacity. The larger projects expected to come forward over the summer, into the fall, and thereafter, however, will require that critical decisions be made about the scale of University investments and the implications of approving those projects in light of the open questions above. We must also assess the implications of abandoning or deferring particular projects that address well-defined needs, pressing University and public interests, and institutional competitiveness.

The analysis presented here as SFP 5.0-A and SFP 5.0-B is intended to focus the next step in understanding the projected position of the University and the actions that will be needed to assure success.

Attached Charts/Data

1. Strategic Financial Plan 5.0 – Projected Capital Spending \$525M
2. Reduced Strategic Capital Plan FY07-FY19: SFP 5.0A
3. Debt Ratios - SFP 5.0-A
4. Debt Ratios – SFP 5.0-B
5. Comparison capital spending – SFP 5.0, 5.0-A, 5.0-B

Strategic Financial Plan 5.0 Projected Capital Spending \$525m - Unapproved Projects



The University of Vermont
 Reduced Strategic Capital Plan FY 2007-FY 2016: SFP 5.0-A
 Revised for Feb 2007 BOT

Project Name	Project Category	Spending	Sources	Borrowing	
UNAPPROVED PROJECTS					
Arts Improvements	Arts	15,000,000	5,000,000	10,000,000	
Athletics	Athletics	30,000,000	-	30,000,000	
Billings Renovation Ph I (Holocaust)	Billings	5,000,000	3,000,000	2,000,000	
Billings Renovation Ph II	Billings	9,000,000	2,000,000	7,000,000	
Center for Health & Wellbeing	CHWB	12,000,000	-	12,000,000	
Given Courtyard	Coll of Medicine	8,000,000		8,000,000	
Renovate Colchester Facility	Coll of Medicine	4,600,000		4,600,000	
UHC Fit-Outs for COM	Coll of Medicine	2,300,000		2,300,000	
Cook Expansion	Cook/Tri-Gen	47,000,000		47,000,000	
Tri-Gen Utility Infrastructure	Cook/Tri-Gen	32,000,000	2,000,000	30,000,000	
Classrooms Phase II	Def Maint/IT	4,600,000		4,600,000	
Deferred Maintenance - \$5m/yr	Def Maint/IT	46,000,000	11,000,000	35,000,000	
Energy Projects	Def Maint/IT	9,000,000		9,000,000	
IT Investments - FY08-FY16 - \$2.75m/yr	Def Maint/IT	24,750,000		24,750,000	
Res Life - \$4m/yr	Def Maint/IT	37,150,000		37,150,000	
Aiken Renovation Phase I	Def Maint-Specific	13,000,000	5,000,000	8,000,000	
CHP Boiler	Def Maint-Specific	3,000,000		3,000,000	
Cook Renovations	Def Maint-Specific	10,000,000		10,000,000	
Given Mechanical Systems	Def Maint-Specific	6,000,000		6,000,000	
Williams Interim Renovation	Def Maint-Specific	2,000,000		2,000,000	
Admin Services Relocation	McAuley/Waterman	1,200,000		1,200,000	
McAuley Hall Renovation	McAuley/Waterman	9,000,000		9,000,000	
Relocations (e.g. T&PS, IMF)	McAuley/Waterman	700,000	-	700,000	
Waterman Internal Realignment	McAuley/Waterman	7,000,000	-	7,000,000	
Hills Addition or Given/Rowell Solution	Plant Sci Group	7,200,000		7,200,000	
Hills Renovation (Psychology - Depts)	Plant Sci Group	10,000,000		10,000,000	
Plant Sci Impacts (Terrill, MLS)	Plant Sci Group	6,000,000		6,000,000	
Plant Science & Chiller/Steam	Plant Sci Group	47,000,000	15,300,000	31,700,000	
Rowell Basement	Rowell	2,500,000	-	2,500,000	
Contingency		22,179,600		22,179,600	
Projects with Contingency: February 2007 BOT		433,179,600	43,300,000	389,879,600	236,334,600

61%

Projected Debt Ratios for The University of Vermont

SFP Version 5.0-A

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Debt Burden Ratio	0.029	0.037	0.044	0.049	0.048	0.059	0.058	0.065	0.065	0.062	0.065	0.063

Formula: Annual Debt Service / Total Operating Expense + Annual Debt Service

Goal: < .05

Total Principal Payments	\$3,767	\$4,396	\$4,365	\$6,911	\$7,149	\$8,626	\$8,886	\$10,016	\$10,480	\$10,973	\$12,116	\$12,732
Total Interest Payments	8,418	12,034	16,280	17,764	18,093	24,229	24,680	30,006	30,580	30,040	32,956	32,686
Total Principal and Interest Payments	12,185	16,430	20,645	24,675	25,242	32,855	33,566	40,022	41,060	41,012	45,072	45,418
Total Operating Expense	415,506	444,264	462,255	493,094	523,960	551,863	575,250	598,204	622,450	650,796	674,787	699,658
Depreciation Expense	(12,987)	(16,873)	(16,629)	(18,731)	(22,270)	(24,513)	(25,394)	(26,242)	(28,472)	(28,934)	(29,450)	(29,646)
Total Principal & Interest	12,185	16,430	20,645	24,675	25,242	32,855	33,566	40,022	41,060	41,012	45,072	45,418
Total Operating Expense - Depreciation + P&I	414,704	443,821	466,272	499,038	526,932	560,205	583,422	611,985	635,038	662,875	690,409	715,429

Viability Ratio	1.74	1.03	1.01	0.98	0.87	0.85	0.78	0.74	0.77	0.78	0.80	0.85
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Formula: (Unrestricted Net Assets + Expendable Restricted Net Assets) / Aggregate Debt

Goal: > 1.0

Unrestricted Net Assets before Treasury O	\$105,261	\$120,227	\$125,420	\$130,473	\$132,280	\$135,237	\$137,801	\$141,059	\$144,231	\$147,473	\$151,406	\$156,296	
Expendable Restricted Net Assets	228,333	239,966	250,332	260,417	264,023	269,925	275,042	281,546	287,876	294,348	302,197	311,958	
Treasury Operations	0	5,748	11,429	20,362	33,544	42,244	55,576	68,285	83,556	100,741	116,092	133,043	
Total Expendable Net Assets	333,594	365,941	387,181	411,252	429,847	447,406	468,419	490,890	515,663	542,562	569,694	601,298	
<i>change in Expendable Net Assets</i>			21,240	24,071	18,595	17,559	21,013	22,471	24,773	26,899	27,132	31,603	235,357
Total Current Liabilities	4,336	4,433	6,979	7,217	8,694	8,954	10,084	10,548	11,041	12,184	12,799	13,445	
Total Long-Term Debt	187,694	349,215	375,265	412,642	483,370	515,142	589,413	654,771	657,824	687,716	698,145	694,396	
Total Aggregate Debt	192,030	353,648	382,244	419,859	492,064	524,096	599,497	665,319	668,865	699,900	710,945	707,841	

Chart 3

Projected Debt Ratios for The University of Vermont

SFP Version 5.0-B

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Debt Burden Ratio	0.029	0.037	0.044	0.049	0.048	0.046	0.054	0.053	0.052	0.057	0.056	0.054

Formula: Annual Debt Service / Total Operating Expense + Annual Debt Service

Goal: < .05

Total Principal Payments	3,767	\$4,396	\$4,365	\$6,911	\$7,149	\$7,412	\$8,662	\$8,770	\$9,171	\$10,486	\$10,998	\$11,557
Total Interest Payments	8,418	12,034	16,266	17,590	18,038	17,879	22,931	23,521	23,323	27,153	26,930	26,714
Total Principal and Interest Payments	12,185	16,430	20,631	24,501	25,187	25,292	31,594	32,291	32,494	37,639	37,928	38,270
Total Operating Expense	415,506	444,264	462,625	493,682	523,301	550,174	573,002	594,967	618,241	646,229	669,949	694,461
Depreciation Expense	(12,987)	(16,873)	(16,629)	(18,596)	(21,612)	(22,832)	(23,146)	(23,005)	(24,263)	(24,366)	(24,612)	(24,450)
Total Principal & Interest	12,185	16,430	20,631	24,501	25,187	25,292	31,594	32,291	32,494	37,639	37,928	38,270
Total Operating Exp - Depreciation + P&I	414,704	443,821	466,628	499,588	526,877	552,633	581,449	604,253	626,472	659,501	683,264	708,282

Viability Ratio	1.74	1.03	1.02	1.02	0.98	0.96	0.93	0.92	0.95	0.99	1.04	1.09
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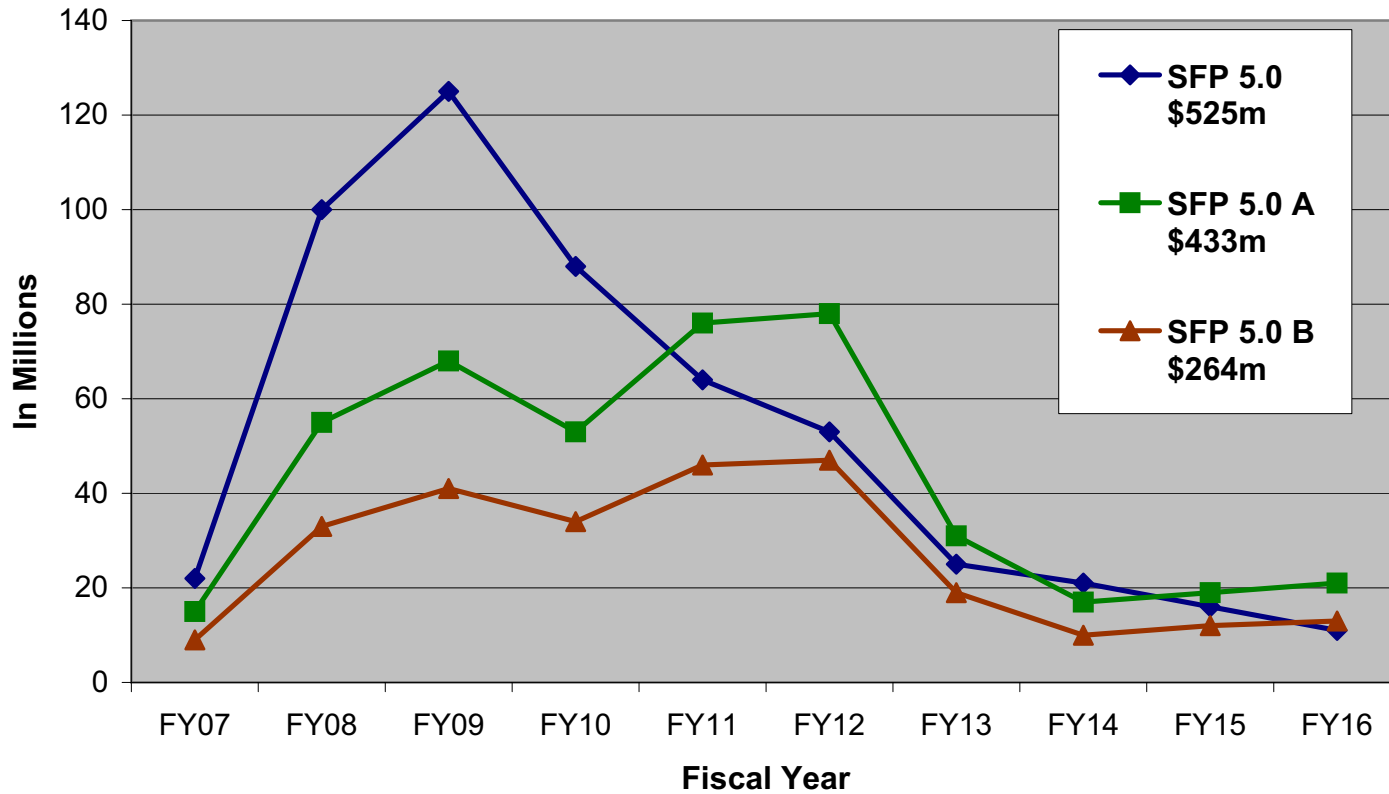
Formula: (Unrestricted Net Assets + Expendable Restricted Net Assets) / Aggregate Debt

Goal: > 1.0

Unrestricted Net Assets before Treasury Ops	105,261	\$120,227	\$125,273	\$129,946	\$132,007	\$135,586	\$139,738	\$144,938	\$150,658	\$156,788	\$163,595	\$171,494	
Expendable Restricted Net Assets	228,333	239,966	250,038	259,364	263,478	270,621	278,908	289,288	300,704	312,939	326,526	342,292	
Treasury Operations	0	5,748	11,207	18,948	29,256	41,218	50,381	62,137	76,135	86,230	97,283	109,282	
Total Expendable Net Assets	333,594	365,941	386,518	408,259	424,740	447,424	469,027	496,362	527,497	555,957	587,404	623,068	
<i>change in Expendable Net Assets</i>			20,577	21,740	16,481	22,684	21,603	27,336	31,135	28,460	31,447	35,664	257,127
Total Current Liabilities	4,336	4,433	6,979	7,217	7,480	8,730	8,838	9,238	10,554	11,066	11,624	12,210	
Total Long-Term Debt	187,694	349,215	373,564	394,075	424,584	455,934	493,131	527,857	547,304	549,846	553,878	558,242	
Total Aggregate Debt	192,030	353,648	380,543	401,292	432,064	464,664	501,969	537,096	557,858	560,912	565,503	570,453	

Chart 4

Strategic Financial Plan
Projected Capital Spending Comparison
Version 5.0 to 5.0-A to 5.0-B



Strategic Financial Plan	Nov-06	Feb-07	
Version	5.0	5.0-A	5.0-B
Capital Project Spending	\$ 525	\$ 433	\$ 264
Sources for Capital Projects (Non-Financed)	\$ 55	\$ 43	\$ 28
Borrowing/Debt Issue	\$ 470	\$ 390	\$ 236