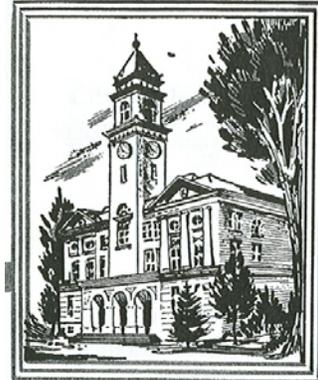


# A Study and Analysis of the Fiscal Impacts of Growth in the City of Montpelier



CITY HALL

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## INTRODUCTION

The City of Montpelier has faced the challenge of answering a considerably complex planning question: what are its fiscal impacts of growth and development? As a municipality plans for and permits growth how will it impact the City's finances, what new revenues and expenses are associated with the development, what City departments are affected most, and how does the development affect the tax rates for all of its citizens? The ability to answer these questions prior to development actually occurring is an invaluable planning tool. As growth occurs, the City's revenue streams, expenses, and capacity of infrastructure and services are affected, yet prior to this study we didn't know how. With this fiscal impact model, development scenarios can be posed, analyzed and altered for optimal fiscal impact to the City. Entire neighborhoods, planning areas, or zoning districts can be regulated to achieve a net positive fiscal impact to the City as a whole.

The City hired Crane Associates of Burlington, Vermont to create in-house capability of calculating fiscal impacts of development. An Excel-based spreadsheet model was created uniquely for the City of Montpelier. It reflects the City's budget composition so that costs are allocated to existing departments. It recognizes the City's unique school system, tax rates, fee structure, revenue sources, and capital infrastructure. Since this fiscal-impact planning tool was tailor made for the City of Montpelier, it can analyze detailed development scenarios and determine whether it will overtax the City's infrastructure capacity and services. The model is not a "black-box" but a transparent and flexible tool. All calculations are visible and if the City department's revenue sources and expenses change so can the model. *However, it will not function for any other municipality. The calculations are specific only to Montpelier, Vermont.*

## **Growth and Fiscal Impacts**

Growth, in this study, is defined as increases in population (residential and daytime population) increases in jobs within the City limits, increases in square footage of buildings (for any use), and increases in the amount of City-owned capital infrastructure. Growth in the City of Montpelier is expected to change at different rates depending on the type of development in question. Resident population is expected to decrease while daytime population will increase. The number of housing units will increase yet school age children will decrease. The model can very quickly analyze different scenarios of long-term growth and provide the user with the expected revenues, costs, and the degree to which the net impacts are positive or negative. It will also show which of the City departments are impacted most and least. As the City discusses different growth policies they can use this model to understand the fiscal implications of that policy.

Fiscal impact analysis is based on the financial characteristics of the City and the characteristics of new development. Tax revenues, tax rates, the value of land, and cost of services are combined with the size, location, and type of development. There are many approaches available to develop a fiscal impact model and the choice is often determined by available data, the needs of the community, the answers sought, current organization of the finances, in-house accounting procedures, and the project budget. There are two general categories of approaches to determine municipal fiscal impacts, the average cost approach and the marginal cost approach.

The average cost approach is a simple calculation that allocates the cost of new development by multiplying the average cost per unit of existing development times the number of new units being developed. This approach assumes the average cost of development will remain stable over time. It can be appropriate for measuring single development projects that will occur in the present. It is unable to account for excess or insufficient capacity in infrastructure or services. It is inappropriate when measuring growth over the long term. Marginal cost approaches analyze the supply and demand for infrastructure and services. It recognizes the community's capacity limitations or excess. The marginal cost approach recognizes that capital infrastructure planning is a "lumpy" process. In other words, a treatment plant financed with long-term debt has excess capacity in its early life. So the cost to add one additional dwelling unit on line is very low. Yet, at some point the capacity is filled and the municipality is faced with a decision to add another plant. At that point the additional or marginal cost of adding one more dwelling unit is much higher than the average cost. The marginal cost approach will account for these variations in capacity by factoring in the relationships of future supply and demand for each infrastructure or service by the type of development.

## Methodology

Since this analysis is based on the components of Montpelier's costs and revenues, all the department heads played an invaluable role in creating the model. The consultant scheduled interviews with each department head. Some departments required several interviews and extended e-mail and telephone conversations. The purpose of the extended interaction is to understand how money moves through the department, what the revenue sources are, what factors generate revenue, what the line item costs mean, and what drives the costs of each line item. The department heads provided all of this information. They also explained how new development impacts their department. The model also breaks down every department budget line-by-line to determine which cost items are variable and which are fixed. The distinction is critical in determining marginal versus total costs. A variable cost is defined as a "*cost that changes in total proportion to changes in the related level of total activity or volume*<sup>1</sup>" A fixed cost is defined as "*Costs that remain unchanged in total for a given period of time despite wide changes in related level of activity or volume*<sup>2</sup>" These definitions are used to allow the model to recognize the capacity of the City's capital.

For example, Table 1 shows the fire department's budget for FY04 broken down by fixed and variable costs. One additional housing unit does not cause the fire department to buy a new fire truck or hire a new employee. Salaries, benefits and equipment debt meet the definition of fixed costs. Fuel and operating supplies, for example, are variable costs. Fixed costs do not increase at the margin, yet variable costs do. One additional housing unit does not increase the fixed cost line items on the fire department budget but it does increase the variable costs. It would be inaccurate if the model averaged all fire department costs over the total number of units in the city and applied that amount as new cost impacts for each additional unit of new development. Instead, the model recognizes capacity of the City's capital. When there is adequate capacity new development only impacts the variable costs of a department's budget. Because this model separates fixed from variable costs it can allow the user to create scenarios based on different capacity efficiencies. As capacity is maximized the per-unit costs decrease. Planners can use the model to project efficiencies as development occurs.

## Cost Factors

Allocating the costs associated with new development requires creating cost factors. Cost factors are the per-unit costs that are applied to the total new units resulting from the development. Each department has cost factors for fixed and variable costs. Each department's cost factors are unique based upon their current expenses and the development units they serve.

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<sup>1</sup> Horngren, Charles, G Foster, S.Datar. 1999. Cost Accounting: A Managerial Emphasis. 10<sup>th</sup> ed. Prentice Hall, Upper Saddle River, NJ.

<sup>2</sup> Ibid.

**Table 1: Example of Fixed and Variable Costs**

<b>10-4500 FIRE AND E.M.S.</b>	<b>Total</b>	<b>Fixed</b>	<b>Variable</b>
SALARIES & WAGES	758,502.00	758,502.00	
CALL FORCE	21,000.00	21,000.00	21,000.00
OVERTIME	120,000.00	120,000.00	120,000.00
DENTAL INSURANCE	6,255.00	6,255.00	
FICA/MEDICARE	69,166.00	69,166.00	
HEALTH INSURANCE	125,220.00	125,220.00	
IRS SECTION 125	1,382.00	1,382.00	
LONG TERM CARE INSURANCE	1,051.00	1,051.00	
CITY RETIREMENT	65,183.00	65,183.00	
LIFE, STD, LTD INSURANCE	8,796.00	8,796.00	
UNEMPLOYMENT INSURANCE	481.00	481.00	
WORKERS' COMPENSATION	28,604.00	28,604.00	
UNIFORMS/PROTECT CLOTHING	22,500.00	22,500.00	
OFFICE SUPPLIES	1,500.00		1,500.00
POSTAGE	760.00		760.00
OPERATING SUPPLIES	16,000.00		16,000.00
INTERNAL FUEL FLEET	6,000.00		6,000.00
SMALL TOOLS & EQUIP	1,500.00		1,500.00
ADVERTISING	100.00	100.00	
TELEPHONE BASIC SERVICE	3,200.00	3,200.00	
TELEPHONE CELL & PAGER	2,000.00	2,000.00	
COMMUNICATIONS OTHER	2,700.00	2,700.00	
DUES/SUBSCRIBTS/MTGS	7,500.00	7,500.00	
PROPERTY & LIABILITY INS	19,103.00	19,103.00	
OTHER PURCHASED SVCS	6,500.00		6,500.00
PROFESSIONAL SVCS	2,300.00		2,300.00
PRINTING & BINDING	300.00	300.00	
OTHER RENTALS	600.00	600.00	
EQUIP REPAIR & MAINT	22,000.00	22,000.00	
INTERNAL FLEET REPAIR	1,000.00	1,000.00	
BLDG/GROUNDS REPAIR/MAINT	1,500.00	1,500.00	
COPIER	1,257.00	1,257.00	
COPIER PAPER	610.00		610.00
TRAVEL/TRANSPORTATION	1,500.00	1,500.00	
LEASE PURCHASE	25,000.00	25,000.00	
UTILITIES	9,000.00	9,000.00	
MACHINERY & EQUIPMENT	16,500.00		16,500.00
PRINCIPAL PAYMENTS	25,000.00	25,000.00	
INTEREST PAYMENTS	12,101.00	12,101.00	
<b>Total FIRE AND E.M.S.</b>	<b>1,413,671.00</b>	<b>1,362,001.00</b>	<b>192,670.00</b>

The following development units are used in this model:

- per capita;
- per mile;
- per building;
- per dwelling unit;
- per student, and
- per project.

Each City department performs its functions differently so the most appropriate units would naturally be different. Some departments serve people, some serve students while others serve to maintain miles of roads. Some departments serve more than one unit. For example, the planning department serves people as they walk in and request information or assistance; they also serve projects during its development review functions. Therefore, the planning department has two cost factors (per capita and per project) and new development is allocated proportionally.

The cost factors are calculated by dividing the total fixed or variable costs in the base year budget (FY04) by the number of units the department served in the base year. The base year is the most current year for which data is available. The variable and fixed cost factors are shown in Tables 2 and 3:

**Table 2: Variable Cost Factors by Department for FY04**

Department	Factor	Unit
City Council	\$ 1.16	per capita
City Manager	\$ 5.47	per capita
Clerk-Treasurer	\$ 3.17	per capita
Finance	\$ 1.61	per capita
Technology Services	\$ 0.44	per capita
Assessor	\$ 0.25	per capita
Planning	\$ 1.27	per capita
Planning -Dev Rev	\$ 21.31	per project
Health	\$ 0.12	per capita
City Hall		
Police	\$ 7.22	per capita
Fire&EMS		
Residential SF/Dup	\$ 34.34	per du <sup>3</sup>
Residential MF	\$ 36.35	per du
Commercial	\$ 55.06	per building
Institutional	\$ 20.45	per building
Industrial	\$ 17.63	per building
DPW-Streets		
Class 1	\$ 9,334.75	per mile
Class 2	4,443.22	per mile
Class 3	4,443.22	per mile
Sidewalks&parking	4,443.22	per mile
DPW-Fleets	\$ 5,629.70	per mile
School	\$ 577.45	per student

<sup>3</sup> du= dwelling unit

Variable costs are applied to all projected development since every new unit will increase the department's costs by that amount. The fixed costs are added to a project based upon the capacity needed to serve the new development. If no additional capacity is needed then the fixed costs of new development accrues at the rate of today's fixed costs inflated to the end of the forecast period (2015 for this model). In such a case the per-unit fixed cost of development decreases. If capacity is needed in any department to accommodate growth then the costs of new infrastructure capacity must be factored in. In this case, new development would increase costs on a per unit basis.

**Table 3: Fixed Cost Factors by Department for FY04**

Department	Factor	Unit
City Council	\$ 2.70	per capita
City Manager	\$ 25.74	per capita
Clerk-Treasurer	\$ 27.47	per capita
Finance	\$ 26.07	per capita
Technology Services	\$ 18.20	per capita
Assessor	\$ 10.74	per capita
Planning	\$ 26.07	per capita
Planning Dev Rev	\$ 583.16	per project
Health	\$ 1.01	per capita
City Hall	\$ 16.51	per capita
Police	\$ 64.39	per capita
Fire&EMS		
Residential SF/Dup	\$ 242.75	per du
Residential MF	\$ 257.00	per du
Commercial	\$ 389.26	per building
Institutional	\$ 144.54	per building
Industrial	\$ 124.62	per building
DPW-Streets		
Class 1	\$12,225.51	per mile
Class 2	\$ 7,333.98	per mile
Class 3	\$ 7,333.98	per mile
Sidewalks&parking	\$ 7,333.98	per mile
DPW-Fleets	\$10,444.96	per mile
School	\$11,122.20	per student

The cost factors were checked for accuracy by applying them to the FY03 actual expenditures. If the factors calculated the costs accurately the result should be very similar to what was actually spent by the department in FY03. In all cases the difference was reasonable and explained. The average difference between the actual and the model was 8.8%. The quality of the activity data in each department and the relevancy of the cost factors explain the differences observed. The consultant checked with the department head to understand if the data could improve the accuracy of the model and where possible the model was adjusted.

## **Revenue Factors**

A Revenue Factor is the per unit amount of revenue a particular action generates. Since new development generates revenue, revenue factors were developed to calculate the amount of revenue new development would contribute to the City's general fund. Departments receive revenue based upon the services they provide and that revenue is deposited in the general fund and redistributed to the departments through the budgetary process. Therefore, while the model allocates the cost to each department it allocates the revenues to the general fund.

Each revenue source generates income based on different units of measure. For example, property taxes generate revenue based on the grand list value while state highway aid is revenue based on a per mile rate. In total there are 34 unique revenue sources in the general fund plus one revenue source directed to the school department. There are 14 unique revenue units. Not all revenue line items in the budget are relevant for this model. For example, intra-department transfers are not included since they are transfers and not income. Table 4 below shows the revenue sources and units included in the model.

The revenue factors were calculated by dividing the total revenues generated in the base year for that line item by the appropriate number of revenue units. The units were determined through the most reliable and available sources of data. Revenues in the model are calculated by multiplying the number of new units by the revenue factor.

## **Enterprise Funds**

It is important to remember that the model does not measure the impacts of development on any enterprise funds. Enterprise funds are separate and independent accounting structures, which receive revenues and pay expenses for specific capital items. In the City of Montpelier, sewer and water are operated through their own enterprise funds. This means the fiscal impacts (costs and revenues) are distinct and separate from the City's department finances and its general fund. Sewer and water infrastructure was originally financed through bonds and repaid by the users of the system. As new development occurs, the developer pays for the costs of adding new infrastructure to the system (new pipes) and the new users pay the operating costs. Basically the sewer and water department are a "closed system" with respect to fiscal impacts. It is relatively easy to see the fiscal impacts of development on the sewer and water departments; there is either a fund balance or a fund deficit. Both of these departments have a long history of fund balances, meaning they have more revenue than expenses associated with the impacts on the system. Fund balances are reserved for future capital expenses and unanticipated operating costs. The fiscal impacts of growth in the sewer and water departments have not had a negative burden on the City.

**Table 4: Revenue Sources**

Source		Factor	Unit
TAXES	Total Non-Residential	\$ 2.74	per GLvalue
	Total Residential	\$ 2.65	per GLvalue
STATE PILOT		\$380,514.00	per year
STATE STATUTORY PAYMENT		\$184,000.00	per year
STATE HIGHWAY AID total			
	Class 1 per mile rate	\$ 11,128.00	per mile
	Class 2 per mile rate	\$ 4,408.00	per mile
	Class 3 per mile rate	\$ 1,468.00	per mile
PLANNING DEPT FEES		\$ 81.14	per application
RECORDING DOCUMENTS		\$ 12.40	per DU
CLERK/TREASURER DEPT FEES		\$ 3.37	per DU
RECORDS RESTORATION FEE		\$ 1.24	per DU
AMBULANCE CALL CHARGES		\$ 283.59	per call
FIRE DEPT - MISC FEES		\$ 0.01	per TREP <sup>4</sup>
POLICE DEPT - MISC FEES		\$ 0.21	per TREP
STUMP DUMP		\$ 0.19	per DU
PUBLIC WORKS DEPT FEES		\$ 1.94	per job
POLICE FINES		\$ 1.53	per TREP
BUSINESS PERMITS AND LICENSES		\$ 59.29	per establishment
OTHER LICENSES		\$ 0.63	per capita
DOG LICENSES		\$ 0.67	per DU
IMPACT FEES			
	Dormitory	\$ 250	per bed
	Government Office	\$ 0.50	per 1sf
	Post Office	\$ 0.50	per 1sf
	all retail	\$ 0.50	per 1sf
	0 to 10,000sf	\$ 0.50	per 1sf
	> 10,000sf	\$ 0.75	per 1sf
	Office	\$ 0.50	per 1sf
	Day Care	\$ 0.50	per 1sf
	Clinic	\$ 0.50	per 1sf
	Restaurant	\$ 0.50	per 1sf
	Lodging	\$ 250	per room
	Banks&Credit Unions	\$ 0.50	per 1sf
	Banks&Credit Unions w/driveup	\$ 1.00	per 1sf
	Sf, MF, PUD, MH	\$ 250	per du
SCHOOLS		\$ 9,353	per equalized pupil

<sup>4</sup> Total Resident Equivalent Population. See Daytime Population section for definition.

## **Capacity**

The capacity of the City's infrastructure was assessed through interviews with relevant department heads. Infrastructure, for the purposes of this model, is defined on a broader, more comprehensive scale. Infrastructure is defined as any item that makes up the fixed cost components of a department budget. Therefore personnel, since they too have a capacity, are defined as infrastructure. If the City grows it may need more personnel capacity as well as other forms of capital, and the model accounts for this.

The capacity of the City's sewer, water, roads, fleet, schools, machinery, equipment, and people were assessed. Interviews with department heads focused on current capacity to meet current demand for services as well as how capacity would be affected with a 15% increase in growth. A growth rate of 15% was used in the two alternative growth scenarios and department heads were instructed on what that might mean for their departments.

## **DPW**

Current capacity of machinery and equipment to maintain roads, street lights and public spaces are adequate and can serve a 15% increase in growth. Current fleet of city vehicles is adequate and can serve a 15% increase in growth as well. No personnel are expected to be necessary with this growth rate. Sewer and water infrastructure are operating at approximately 28% of its potential. Montpelier's sewer and water infrastructure can accommodate three times the current population. No new personnel or equipment are necessary if the City grew by 15%.

## **Schools**

A local architectural firm recently completed a capacity study to understand facility needs into the next 10 years. School age populations are decreasing and are expected to continue. Facility space therefore is overabundant and the department is contemplating closures and consolidation. Under a 15% growth scenario the school department would not need any additional facility space. Teachers are based on student population; for every decrease or increase of 35 students the number of teachers change accordingly. This change is accounted for in the model calculations.

## **Public Safety**

Public safety departments (Police, Fire & EMS) reported having adequate personnel to serve the current population. Neither department reported needing additional staff under a 15% growth scenario. Vehicles, equipment and other fixed cost items are also reported to be adequate to serve this future growth.

## **Administrative**

All other departments do not rely on major capital equipment or hard infrastructure to perform their functions with the exception of vault space for the

Clerk/Treasure's office. Vault space was reported to be in limited capacity and a near future expansion is likely. Approximately \$100,000 maybe needed for a new vault. However, a new \$25,000 space-efficient shelving system may serve as a less expensive solution. The demand for vault space is driven by the number of land transactions that occur. In recent years the number of property transactions have increased notably due to refinancing resulting from lowering interest rates. This trend is very difficult to predict as it is based on national policies and international economics. For the purposes of this model it was assumed that future property transactions would slow compared to the recent past and that the \$25,000 shelving solution would be adequate and the preferred choice of the City.

The remaining capacity question for all other departments is whether there are adequate personnel to meet its demand for services. The planning department may be nearing its limit of personnel capacity to serve its demand. In the past year, the equivalent of 2.6 full time employees reviewed over 190 development applications, negotiated with landowners, and staffed the development review board and design review committee. There are no standards that can be used to determine adequate capacity because much of it depends on the review procedures of the municipality, which are not comparable across jurisdictions. In addition, development review is only one function of the many that the planning department performs. Whether Montpelier has an adequate sized staff for any of its departments is based on the judgment of the department head and by reviewing overtime records and other indicators of unmet demand. While the Planning department seems to be at its personnel capacity the model does not assume the City will approve a new employee in Planning & Development and therefore does not incorporate those new associated costs. For all other departments there were no indications that current staff could not meet an increase demand for services resulting from 15% growth.

## Base Data

The model relies on the base data to provide it with the key information. The base data sheet performs many of the calculations behind the revenue factors, analyzes the grand list, and stores basic information for use in several areas of the model. The components of the base data sheet are explained below.

## Demographics

The demographics needed to run the model consist of population, housing units, jobs, daytime population and the total residential equivalent population.

**Table 5: Base Data Demographics**

Demographics		
Population	8,035	
Dwelling Units	3,899	
Jobs	14,053	
Annual Average Daytime Population 2004	19,046	
Annual Average Daytime Population 2010	19,849	
Annual Average Daytime Population 2015	20,652	
Unaccounted Nighttime Pop (outbound commuters)	2,156	
Total resident equivalent Population 2004	21,202	% change
Total resident equivalent Population 2010	22,005	1.038
Total resident equivalent Population 2015	22,808	1.076

Population figures used were the latest Census data for 2000. Dwelling unit count was obtained from the Planning Department. Employment data was obtained from the Vermont Department of Employment and Labor.

## Daytime Population

Daytime population is shown in Table 6 and was developed through the following procedure. The Census 2000 population is projected to 2002. The Montpelier local labor force is subtracted from the total labor force in the City to obtain in-migrating commuters (7,152), which is added to the population. The Montpelier residents who leave everyday (out-migrating commuters) are then subtracted from that number for a total of 13,022. From there we add other visitors, students, and commuters not previously counted. Inbound commuting student data was obtained from the college registrar offices. Employees not previously counted include proprietors who are not covered by unemployment insurance and the sub-contractors for large companies (such as National Life) who are counted as employees in another municipality but come to Montpelier on a regular basis. Data on these two groups came from BEA Department of Commerce and interviews with large employers respectively. The impact of the legislature must be added. The Capital security estimates there are approximately 800 people in the capitol building on an average legislative day. The capitol cafeteria reports that they serve approximately 600 lunches each day. Because it is reasonable to assume that more people are in the building than eat in the cafeteria this study uses the capitol security number as a starting

point. Then, because the legislative session is only 5/12 of the year we reduced the number by that amount so that the total can remain an average annual figure. All Montpelier lodging owners were interviewed to determine their vacancy rates and number of rooms to estimate the number of average overnight visitors. Shoppers were estimated by counting all publicly owned parking spaces in the downtown and assuming the occupancy rate of the vehicle was 1.8 (based on national standards) and 60 percent of the parking spaces were filled by non-residents. The 60% figure was determined based on interviews with large retail owners who stated that approximately 75% of their customer base is from outside of Montpelier. One of the retail owners recently completed a market study to which provided current and accurate data to support this assumption. Because the data wasn't comprehensive we erred on the conservative side and used 60%. The number is actually doubly conservative because only publicly owned parking lots were used in the estimation. This means that all the spaces in the Shaws parking lot, the Onion River Co-Op, and all the private office buildings, shops and restaurants were not counted. If they were this would certainly increase the daytime population. On the other hand there may be some double counting between proprietors and the resident population. In our estimation the number still errs on the conservative side and is within a reasonable margin of error for the purposes of this model.

**Table 6: Daytime population**

	2000	2002		Running Total
Total Estimated Population	8,035	8,026		8,026
Total Local Labor Force	2,142			
Total Montpelier Employment		9,294		
Employment minus local labor force	7,152			15,178
Minus Outbound commuters	2,156			13,022
Plus Students commuting		753		13,775
Non-ES202 employees		2,421		16,196
Sub contractors		440		16,636
Legislative (5/12 of total 800)		328		16,964
Plus Overnight guests in hotels		162		17,126
Plus Shoppers/visitors		1,448		18,574
Estimated average daytime population (2005)				18,574
Daytime Population in 2015 (14% increase)				21,360

The Total Residential Equivalent Population (TREP) is used in the model to understand the impacts on the public safety departments. TREP is number of people, both resident and visitors, that impact the public safety departments. Police, fire, rescue and ambulance service is provided 24 hours per day; therefore, these departments serve the entire daytime population plus the nighttime residents. The total population that affects these departments must be used to calculate its costs and revenues.

## Taxes

Tax rates used for the model are the most current rates available. Tax rates are held constant as the model projects into the future. This is because not only is it impossible to forecast, it would also be a moot exercise. The City adjusts tax rates up or down to maintain a revenue neutral fiscal position. If City costs decrease or if other revenue sources increase the tax rates can remain unchanged or even decrease. If the City chooses to purchase new capital or incur new debt the rates will likely increase. There is no way to predict future choices of the City. More importantly because the rates are designed to maintain a revenue neutral position predicting future rates adds no value to the model.

## Grand List

The grand list was analyzed for many purposes. It provided valuable information

General Fund	1.03
Recreation	0.09
Senior Citizens	0.02
Subtotal	1.14
School State Tax Residential	1.41
School Local Share Non-Residential	1.50
Sewer Benefit Charge	0.02
SCO Benefit Charge	0.08
<b>Total Non-Residential</b>	<b>2.74</b>
<b>Total Residential</b>	<b>2.65</b>

**Table 7: Current Tax Rates for Montpelier**

to determine the number of residential buildings by type (single family, multi-family etc). The amount and ratios of low, medium, high density and mixed-use housing informs us on the amount of fire department resources are

going to which type of land use. It also tells us the length of public works infrastructure likely needed in the future. The ratios of land use types from 1990 to 2000 were

relatively unchanged (the greatest change was a 1.1% increase in high-density housing). Therefore the ratios were held constant into the year 2015.

The grand list also provided valuable information on the number of residential and commercial parcels, the acres of those parcels and the average values of those land uses.

## Revenues

All revenue sources in each department were analyzed to determine if they are affected by growth. Table 8 shows the revenue sources determine to be relevant to the model.

Ambulance Call Charges
Clerk/Treasurer dept fees
Fines and Forfeitures
Fire dept - misc fees
Impact fees
Licenses & permits
Planning Department Fees
Police dept - misc fees
Public works dept fees
Records restoration fee
Recording documents
State statutory payment
State highway aid total
State pilot

**Table 8: Revenue Sources**

## Growth Scenarios

The model was used to test three growth scenarios for the City of Montpelier. Scenario One is based on the status quo growth projections currently accepted by planning professionals. Scenario Two assumed a 15% growth increase in the City's population and Scenario Three assumed a 15% growth in the City's population and employment. All scenarios are long-term growth scenarios covering a 10-year time horizon. The scenarios do not single out a particular type of development (i.e.: low density residential, mixed-use high rises, etc), nor do they single out a particular location. The ratios of location and type of growth in all of the scenarios remains unchanged from today; only the quantity of growth changes.

## Residential Development

The type of residential development is divided in to four groups based on density: low, medium and high density and mixed use. (see Table 9). In all three scenarios the ratio of the types of residential development was held constant throughout the forecast period. The zoning in Montpelier is written such that the type of development also dictates its location to a large extent. Therefore, the current ratio of where residential development is occurring is also held constant throughout the forecast period.

**Table 9: Ratio of residential development**

	1990	2000	2005	2010	2015
(LDR) Low Density SFD	49.07%	49.76%	50.00%	50.00%	50.00%
(MFD) Medium Density SFD - 50% Multifamily	27.95%	28.26%	28.00%	28.00%	28.00%
(HDR) High Density SFD - Multifamily	21.04%	19.93%	20.00%	20.00%	20.00%
Mixed Use - Multifamily	1.94%	2.05%	2.00%	2.00%	2.00%

## Employment

Employment sectors were aggregated into categories that made sense for Montpelier and this model. Different employment sectors require different amounts and types of services from the City. Different sectors also require different amounts of square footage per employee. Service demands and square footage requirements create fiscal impacts to the City. The model measures the fiscal impacts of commercial development according to employee square footage requirements and expected services. The sectors were aggregated into categories that required similar services and that grew at similar rates of square footage per employee. For example, manufacturing is a commercial enterprise but has significantly different size requirements than retail commercial. While office based employment has similar square footage requirements as government jobs its impacts are different. Employment sectors and ratios are included in Table 10.

**Table 10: Employment ratios and size requirements**

	<b>Manu/Indus/Trans</b>	<b>Office</b>	<b>Retail</b>	<b>Gov't</b>	<b>Total</b>
<b>Ratio</b>	3%	40%	10%	47%	100%
<b>SQFT per Employee</b>	667	333	400	333	

**Infrastructure**

As previously mentioned, the City’s sewer and water infrastructure are built and maintained by self-sustaining enterprise funds. The fiscal impacts of sewer and water infrastructure growth have always been a net positive to the fund and their growth is independent of the general fund. Since this model measures impacts to the general fund, the future growth of sewer and water infrastructure is documented in the growth scenarios but does not get modeled in the fiscal impacts. This documentation is merely supplemental information provided as a courtesy for planning purposes.

Future quantity of streets and sidewalks is projected to 2015 based on the current length of street and sidewalk per housing unit or commercial building. Each commercial or residential building in the City requires a certain amount of City street and sidewalk. In low-density residential developments the length of street per unit will be longer than high-density areas but may require less sidewalk. On the other hand, downtown commercial development may result in up to twice as much sidewalk than street. Maintenance costs on a per unit basis for streets and sidewalks were obtained from the Department of Public Works. The model accounts for the differences in fiscal impacts per development type. The length of street and sidewalk calculations was based on several inputs including: frontage requirements in the City’s zoning ordinance; past studies; actual measurements; and professional judgment. The model assumes new growth will result in new street and sidewalk miles on a per unit basis as shown in Table 11.

**Table 11: Growth factors for new streets and sidewalks**

<b>Zone</b>	<b>Miles per building</b>
LDR	0.018939394
MDR	0.008522727
HDR	0.004734848
Mixed	0.004734848
Commercial	0.004734848

Each new mile of road will impact the City’s finances differently. Class One roads require much higher maintenance costs than other roads. Class One costs also include street lightening maintenance. Conversely, the State Highway Aid also provides more revenue for Class One roads than other classes. Cost and revenue data for street maintenance was obtained from the Department of Public Works. The capital costs of building new roads are paid for by the private sector

and therefore are not incorporated into the model. Fixed and variable costs of maintaining Montpelier City streets are shown in table 12 below.

**Table 12: Fixed and Variable Costs by Street Type**

<b>DPW-Streets</b>	<b>Fixed</b>	<b>Variable</b>	<b>Unit</b>
Class 1	\$12,225.51	\$ 9,334.75	per mile
Class 2	\$ 7,333.98	4,443.22	per mile
Class 3	\$ 7,333.98	4,443.22	per mile
Sidewalks&parking	\$ 7,333.98	4,443.22	per mile

## Public Safety Departments

The model assumes the public safety departments will be impacted by development according to the growth in the Total Resident Equivalent Population (TREP). The public safety departments currently serve the TREP, therefore the model projects future growth in the TREP and applies that number to the future demand for their services. As explained above, the TREP is the total daytime population combined with the nighttime resident population. Fire and EMS call data provided information on the differences in demand for services based on location and land use type. Call data was broken down by single family, multifamily, commercial, industrial and institutional. Each of these land uses demanded services from the fire and EMS departments differently. When the model is told different land uses will grow at different rates it applies a fiscal impact to each of these land use types according to current fixed and variable expenses.

**Table 13: Fire and EMS Calls and Cost by Land Use**

<b>Land Use</b>	<b>Call volume</b>	<b>Variable</b>	<b>Fixed</b>
Residential SF/Dplx	21.0%	\$ 34.34	242.75
Residential MF	22.2%	\$ 36.35	\$ 257.00
Commercial	33.6%	\$ 55.06	\$ 389.26
Institutional	12.5%	\$ 20.45	\$ 144.54
Industrial	10.8%	\$ 17.63	\$ 124.62

The data from the Police Department can not be readily converted for the purposes of this report. Therefore a location cost breakdown similar to the Fire Department is not possible within the scope of this project.

**Table 14: Police Call Costs**

	<b>Variable</b>	<b>Fixed</b>	<b>Unit</b>
Police calls	\$ 7.22	\$ 64.39	per TREP

## Schools

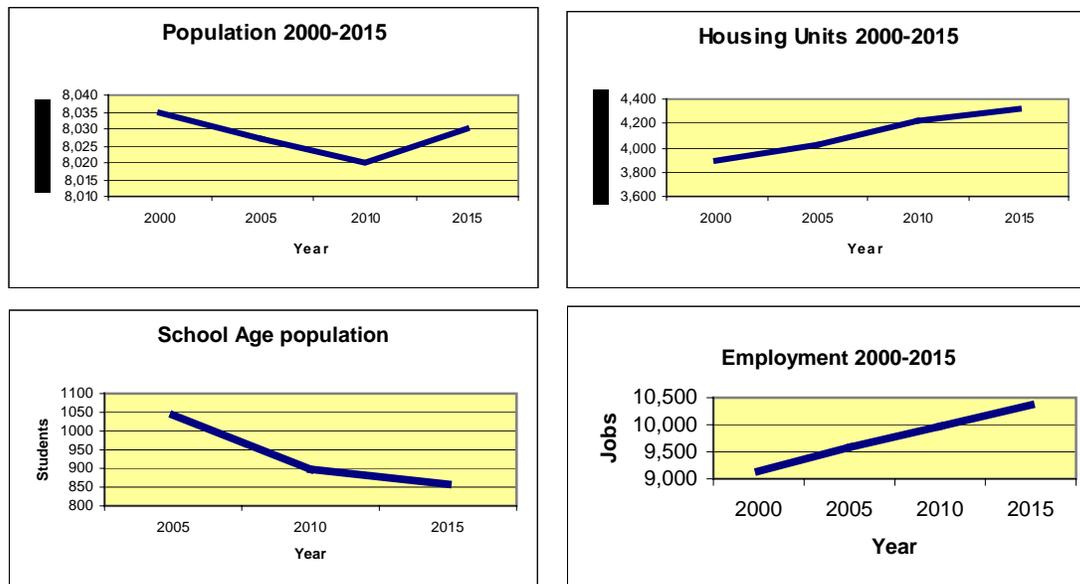
Student population is expected to decrease in the forecast period, however it is important to remember that fixed costs cannot. Although personnel are a fixed

cost, the costs do change in steps. Whenever student population changes by 35 students, the expense of one teacher can change accordingly. Over the forecast period Montpelier is expected to lose 184 students, therefore the model assumes 5.25 teachers will be eliminated from the budget. On average one teacher is removed approximately every two years. All other fixed costs remain constant through the forecast period. As student population decreases the per-pupil spending increases. Approximately 90% of the costs for operating the school system are fixed. On a per pupil basis the fixed costs are currently \$11,122 and the variable costs are \$577. As student population decreases only the variable costs are reduced.

## Findings

### Scenario One – Status Quo

The first scenario tested by the model was the projected growth as currently assumed. Status quo means that all existing trends remain the same. This status quo growth is projected to result in a decrease in resident and school age populations, an increase in jobs and an increase in housing units.



Population is expected to decrease but bounce back to today's numbers by the year 2015. This is mainly because of the retiring baby boom living longer and staying in their community. School age population is expected to decrease with no recovery by 2015. Population changes affect all the per capita cost and revenue factors. Housing units will grow at an average of 4% per year to 4,326 units by 2015. This increase without a corresponding population increase is a result of decreasing household sizes. Approximately 60% of these new homes are single-family residences being built where it is currently allowed. The increase in housing will drive the increases in length of new street and sidewalk infrastructure as well as the costs to process the permits and development review. On the revenue side, fees and grand list revenue will increase.

Employment will increase by approximately 1% per year for the next ten years. A majority of these jobs are office-based employment in both the government and private sectors. New employment will dictate the daytime population to some degree as well as fire and police demands. The increase in employees will result in over 484,000 new commercial square feet or the equivalent of 59 new (average sized) commercial buildings.

Development review and inspection activity in the Planning Department will increase by 11 -16%. Demand for walk up services in the Planning, Clerk/Treasurer, and Assessor departments will likely increase due to this growth.

The Status Quo scenario results in 5.77 new miles of roads, 4.6 miles of which are Class Three. This growth also results in 3.7 miles of sidewalk and approximately 462 new sewer and water connections.

Non-residential tax revenue will increase by \$292,000 and residential tax revenue will increase by \$160,000. It is important for the reader to remember that tax revenues to the city will increase because of more properties on the grand list *not because the tax rate will increase*. Increases in the Montpelier grand list value were based on new residential properties being assessed at the average residential value today inflated by the Vermont Housing Price Index<sup>5</sup> to the year 2015. All other revenue sources are inflated by the State and Local Government Inflation Index.

Public Safety revenues such as ambulance charges and police fines are expected to increase by up to 25%. Planning Department fee revenue will increase by 10%. State Highway Aid for Class Three roads will increase by 16%. All other forms of revenue increase by less than 8%. Revenues associated with Impact Fees show a 100% increase, however, this is misleading because there is no data for today's impact fee revenue. See Table 15.

The costs associated with providing City services allocated on a per capita basis (administrative functions) will increase by 18% over the forecast period. Even though the population will not increase, the costs for providing services increases because of inflation. The State and Local Government Inflation Factor averages just under 2%<sup>6</sup>. The cost associated with development review activities in the Planning Department will increase by 26%. This department will experience the largest impact of all the City departments. The cost of maintaining Class Three roads will increase by 15%. All other costs by department will see less than an 11% increase. Interestingly, the Fire Department costs for responding to single-family homes will increase by only 3% compared to multifamily homes at 11%.

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<sup>5</sup> The Vermont Housing Price Index is determined by joint agreement between the Governor's and the Legislator's Fiscal offices and used to determine revenues to the State Education Fund.

<sup>6</sup> Legislative-Douglas Administration Consensus Long-Term Inflation Forecast for the Debt Affordability Committee (September 2004)

School impacts are more complicated to model and deserve a separate discussion. School revenue comes entirely from the state. However, City taxpayers pay the State through their property taxes to fund education. Montpelier collects \$1.41 per assessed value from residents and \$1.50 per assessed value from non-residents. The State pays the Montpelier School District \$9,353 per equalized pupil. This amount changes each year depending on the student population, Act 68 per pupil costs, Montpelier’s Common level of Appraisal and possibly other factors. All the revenues for education go directly to the school district and are never commingled with the general fund. From one perspective, education is like an enterprise fund however it is not separated entirely because the City collects the tax based on property values not by rates of use. The model separates school revenues and costs from the general fund and shows the net revenue with and without schools. Per pupil costs are projected to increase in the model based on the State and Local government inflation index. This is likely an underestimation of the true inflation rate. The model also decreases cost expectations based on decreasing student population. As students leave the system the per pupil costs increase. Whether the model shows a surplus or deficit at the end of ten years, it is important to remember that the number does not reflect a monetary difference. This is because the voters do not approve a budget with either a deficit or surplus. They approve a balanced budget and every year the school district ensures expenses are balanced with revenues. Basically the voters get what they vote for.

The question remains then, what does the model show when it predicts a surplus or deficit. It is impossible to model how the voters will react in any given year toward the school budget. The voters may request increases or decreases in education services based on any number of unpredictable variables. The way to address this issue is to have a model that holds all variables constant except the number of school children, the number of teachers, and inflation. The model assumes the voters will prefer a constant level of education services based on what the students receive today. Therefore, what the deficit or surplus measures is the “impact” the voters and the District will have to address; it measures the change that is likely to occur in the school system. How the citizens and District choose to reconcile the change is for them to decide. In the status quo scenario school age population decreases and so does corresponding revenues. Many of the school costs are fixed so much of the costs remain constant, which leads to a negative fiscal impact. Revenues will increase by 7% and costs will increase by 22%.

**Table 15: Net Revenues from Scenario One**

<b>Fiscal Impact Summary</b>	<b>Status Quo</b>
Net Revenue w/out schools	\$ 83,770.99
Net Revenue w/ schools	\$ (5,408,690.46)

The status quo growth projections result in a net increase in general fund value of \$83,770 or .01% of all external revenues to the general fund<sup>7</sup>. This is basically

breaking even. The school district, on the other hand, will have to respond to a 5.4 million dollar negative impact in the next 10 years. See Table 15.

<sup>7</sup> External revenues are all revenues excluding interdepartmental transfers.

**Table 16: Revenue Impacts from Status Quo Scenario**

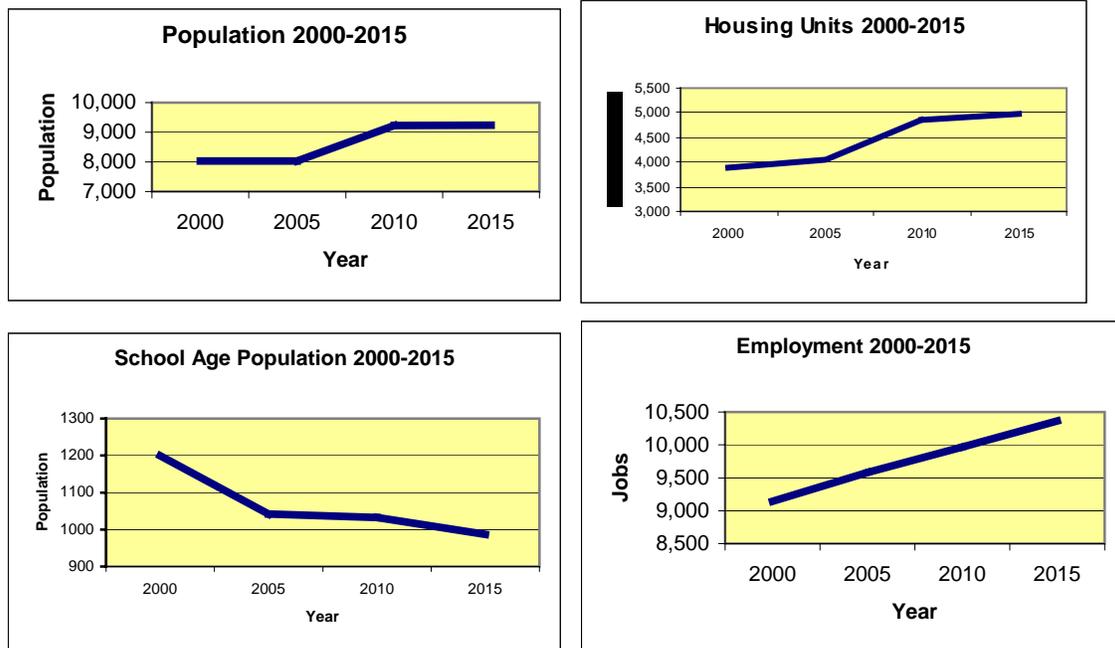
REVENUE SOURCE	2005	Total 2015	%Change
LOCAL TAXES \$5,167,976.00			
Total Non-Residential	\$ 1,032,838.00	\$ 2,122,752.36	51%
Total Residential	\$ 4,135,138.00	\$ 4,555,607.22	9.2%
STATE PILOT	\$ 380,514.00	\$ 492,324.65	23%
STATE STATUTORY PAYMENT	\$ 184,000.00	\$ 238,066.76	23%
STATE HIGHWAY AID			
total \$ 209,171.98			
Class 1 per mile rate	\$ 124,288.34	\$ 127,123.97	2%
Class 2 per mile rate	\$ 36,630.48	\$ 41,672.73	12%
Class 3 per mile rate	\$ 48,253.16	\$ 57,160.64	16%
PLANNING DEPT FEES	\$ 15,416.67	\$ 17,218.21	10%
RECORDING DOCUMENTS	\$ 50,000.00	\$ 53,645.49	7%
CLERK/TREASURER DEPT FEES	\$ 13,600.00	\$ 14,579.46	7%
RECORDS RESTORATION FEE	\$ 5,000.00	\$ 5,364.55	7%
AMBULANCE CALL CHARGES	\$ 245,416.88	\$ 297,943.14	18%
FIRE DEPT - MISC FEES	\$ 185.74	\$ 207.30	10%
POLICE DEPT - MISC FEES	\$ 4,353.30	\$ 4,353.30	0%
STUMP DUMP	\$ 765.84	\$ 821.99	7%
PUBLIC WORKS DEPT FEES	\$ 18,778.76	\$ 21,332.64	12%
POLICE FINES	\$ 34,636.61	\$ 42,049.84	18%
BUSINESS PERMITS AND LICENSES	\$ 7,292.14	\$ 8,581.46	15%
DOG LICENSES	\$ 2,700.60	\$ 2,898.59	7%
IMPACT FEES		\$ -	
Dormatory		\$ -	
Government Office		\$ 43,275.02	100%
Post Office		\$ -	
all retail		\$ 11,060.00	100%
0 to 10,000sf		\$ -	
> 10,000sf		\$ -	
Office		\$ 36,829.80	100%
Day Care		\$ -	
Clinic		\$ -	
Resturant		\$ -	
Lodging		\$ -	
Banks&Credit Unions		\$ -	
Banks w/driveup		\$ -	
Sf, MF, PUD, MH	\$ 32,935.98	\$ 25,152.11	-31%
Congregate Care			
SCHOOLS	\$10,413,162.55	\$10,143,328.28	-3%
TOTAL WITHOUT SCHOOLS	\$ 6,372,162.55	\$ 8,220,021.21	22%
TOTAL WITH SCHOOLS	\$16,785,907.05	\$18,363,349.50	9%

**Table 17: Cost Impacts for Status Quo Scenario**

<b>TOTAL IMPACTS</b>		<b>2005</b>	<b>Totals</b>	<b>% Change</b>
City Council		\$ 33,027.07	\$ 40,100.46	18%
City Manager		\$ 267,029.47	\$ 324,203.41	18%
Clerk-Treasurer		\$ 262,093.51	\$ 318,201.76	18%
Finance		\$ 236,753.60	\$ 287,432.11	18%
TechServ		\$ 159,491.34	\$ 193,628.83	18%
Assessor		\$ 94,062.19	\$ 114,195.22	18%
Planning (total)	\$ 356,243.14	\$ 233,844.09	\$ 283,898.51	18%
Planning DevRev		\$ 122,399.06	\$ 165,961.10	26%
Health		\$ 9,683.47	\$ 11,756.50	18%
City Hall		\$ 141,283.87	\$ 171,522.67	18%
Police		\$ 1,417,526.96	\$ 1,720,918.41	18%
Fire&EMS (total)	\$1,350,104	\$ -	\$ -	
Residential SF/Dup		\$ 928,440.88	\$ 1,210,185.62	23%
Residential MF		\$ 277,235.19	\$ 388,935.81	29%
Commercial		\$ 120,751.31	\$ 175,727.81	31%
Institutional		\$ 21,099.83	\$ 26,857.02	21%
Industrial		\$ 2,577.18	\$ 3,762.15	31%
DPW-Streets (total)	\$1,259,010.28		\$ -	
Class 1		\$ 240,070.69	\$ 299,713.69	20%
Class 2		\$ 104,315.13	\$ 146,898.30	29%
Class 3		\$ 412,566.29	\$ 608,319.54	32%
DPW-Sidewalks&parking		\$ 502,058.16	\$ 695,192.53	28%
DPW-Fleets		\$ 685,257.46	\$ 948,865.91	28%
Schools		\$12,230,591.51	\$15,635,789.73	22%
	total	\$18,502,158.27	\$23,772,067.10	22%
	total<schools	\$ 6,271,566.76	\$ 8,136,277.37	23%

## Scenario Two – 15% Population Growth

The main impetus for this study was to determine if the City of Montpelier would be making poor long-term fiscal decisions if it was to advocate for increasing the population of the city. This model analyzes exactly that. Scenario Two enters into the model a hypothetical 15% increase in population from what the status quo projects.



A 15% increase in the general population results in an increase of housing units and school age population. The number of housing units would grow from 4,326 under the status quo to 4,975 in this scenario, an increase of 649 units. The proportions of high to medium to low-density units remain constant. School age population would still decrease but not as fast as the status quo. Instead of 858 students in year 2015 there will be 986 students or 128 more. The model calculates the revenue based on equalized pupils therefore the increase in students results in 167 additional equalized pupils. This scenario does not make any changes to the status quo projections for employment. Neither the amount of jobs nor the types of employment are changed. The daytime population grows from 18,574 to 21,360.

Tax revenue from non-residential parcels does not result in a change from the status quo scenario. The number of residential parcels will increase. As a result the revenue from these parcels increases by 14.5%. This amounts to \$870,000 of new property tax revenue. PILOT payments would not change. State Highway revenues to service the new roads associated with residential construction will increase. Class 2 highway aid will increase by approximately \$12,000 and Class 3 aid will increase by nearly \$19,000. Planning, recording and Clerk/Treasury fees will all increase by approximately 12%. Revenue from ambulance changes will increase by \$40,000.

Cost most notably increase in the Fire, Police, Public Works, and the Planning/ Development Review Departments. Fire Department calls to multifamily dwellings will increase by 14% more than the status quo. The Department will spend more than \$102,000 over the status quo projection. Combined with the calls to other residential uses, the Department's budget will be impacted by a total of \$267,000 more than the status quo. Calls to commercial uses do not increase over the status quo. Maintenance cost for Class 2 and 3 roads will increase by 13% over the status quo impacting the Department by a total of 2,100,000 in the year 2015. The Police will see an additional 1% growth in costs. The types of land uses that will impact the Police Department the most cannot be known with current data. Development review activities will increase by 10% causing a \$24,894 increase in costs.

<b>Fiscal Impact Summary</b>	<b>Scenario 1</b>
Net Revenue w/out schools	\$ 181,618.34
Net Revenue w/ schools	\$ (4,937,550.25)

Under Scenario 1 (15% increase in population) the net revenue to the City is still positive. Similar to the status quo, the City would be breaking even, receiving a .02% increase to the general fund above today's revenue. The school benefits slightly under this scenario by going from a negative 5.4 million dollar impact under the status quo to a negative 4.9 million dollar impact.

**Table 18: Revenues from Scenario 1**

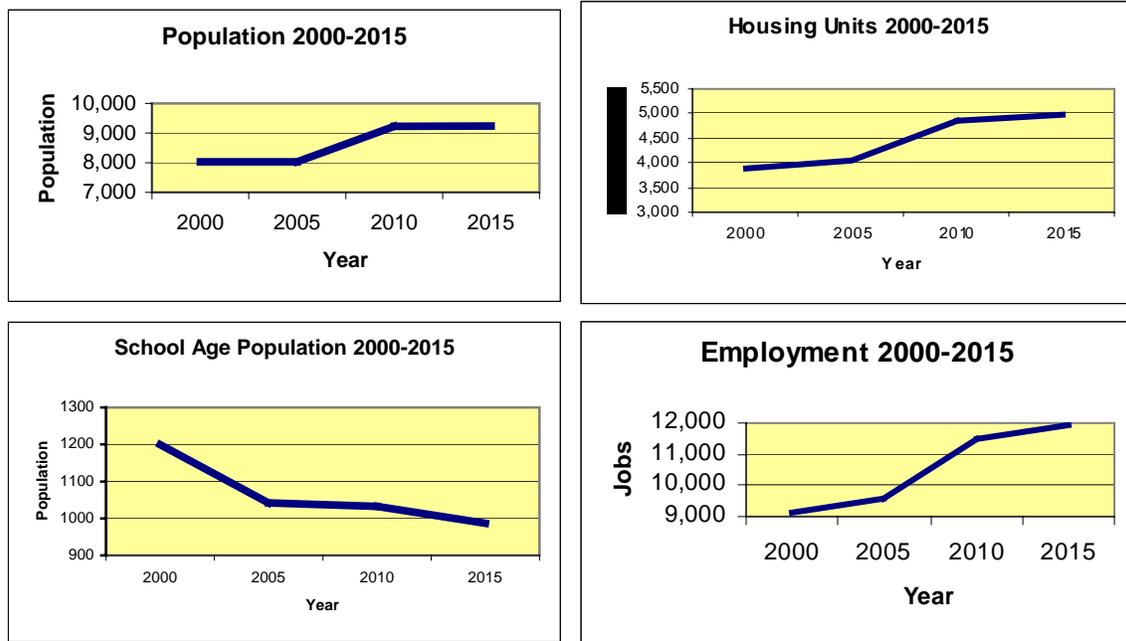
<b>REVENUE SOURCE</b>		<b>2005</b>	<b>2015 Total</b>	<b>% Change</b>
LOCAL TAXES	\$5,167,976.00			
Total Non-Residential		\$ 1,032,838.00	\$ 2,122,752.36	51%
Total Residential		\$ 4,135,138.00	\$ 5,425,961.05	23.79%
STATE PILOT		\$ 380,514.00	\$ 492,324.65	23%
STATE STATUTORY PAYMENT		\$ 184,000.00	\$ 238,066.76	23%
STATE HIGHWAY AID total	\$ 209,171.98			
Class 1 per mile rate		\$ 124,288.34	\$ 128,008.53	3%
Class 2 per mile rate		\$ 36,630.48	\$ 49,591.55	26%
Class 3 per mile rate		\$ 48,253.16	\$ 70,300.02	31%
PLANNING DEPT FEES		\$ 15,416.67	\$ 19,800.94	22%
RECORDING DOCUMENTS		\$ 50,000.00	\$ 61,690.28	19%
CLERK/TREASURER DEPT FEES		\$ 13,600.00	\$ 16,765.83	19%
RECORDS RESTORATION FEE		\$ 5,000.00	\$ 6,169.03	19%
AMBULANCE CALL CHARGES		\$ 245,416.88	\$ 337,986.53	27%
FIRE DEPT - MISC FEES		\$ 185.74	\$ 235.16	21%
POLICE DEPT - MISC FEES		\$ 4,353.30	\$ 4,938.38	12%
STUMP DUMP		\$ 765.84	\$ 945.25	19%
PUBLIC WORKS DEPT FEES		\$ 18,778.76	\$ 21,332.64	12%
POLICE FINES		\$ 34,636.61	\$ 47,701.31	27%
BUSINESS PERMITS AND LICENSES		\$ 7,292.14	\$ 8,581.46	15%
DOG LICENSES		\$ 2,700.60	\$ 3,333.27	19%
IMPACT FEES			\$ -	
Dormatory			\$ -	
Government Office			\$ 43,275.02	100%
Post Office			\$ -	
all retail			\$ 11,060.00	100%
0 to 10,000sf			\$ -	
> 10,000sf			\$ -	
Office			\$ 36,829.80	100%
Day Care			\$ -	
Clinic			\$ -	
Resturant			\$ -	
Lodging			\$ -	
Banks&Credit Unions			\$ -	
Banks&Credit Unions w/driveup			\$ -	
Sf, MF, PUD, MH		32,935.98	\$ 19,057.96	100%
Congregate Care				
SCHOOLS		\$ 10,413,162.55	\$11,664,827.52	11%
TOTAL WITHOUT SCHOOLS		\$ 6,372,162.55	\$ 9,166,707.76	31%
TOTAL WITH SCHOOLS		\$ 16,785,907.05	\$20,831,535.28	20%

**Table 19: Cost Impacts from Scenario 1**

<b>TOTAL IMPACTS</b>			<b>Totals</b>	<b>% Change</b>
City Council		\$ 33,027.07	\$ 41,907.73	21%
City Manager		\$ 267,029.47	\$ 332,731.31	20%
Clerk-Treasurer		\$ 262,093.51	\$ 323,137.13	19%
Finance		\$ 236,753.60	\$ 289,933.39	18%
TechServ		\$ 159,491.34	\$ 194,313.35	18%
Assessor		\$ 94,062.19	\$ 114,591.58	18%
Planning (total)	\$ 356,243.14	\$ 233,844.09	\$ 285,871.77	18%
Planning DevRev		\$ 122,399.06	\$ 190,855.26	36%
Health		\$ 9,683.47	\$ 11,946.53	19%
City Hall		\$ 141,283.87	\$ 171,522.67	18%
Police		\$ 1,417,526.96	\$ 1,746,956.01	19%
Fire&EMS (total)	\$1,350,104	\$ -	\$ -	
Residential SF/Dup		\$ 928,440.88	\$ 1,392,899.06	33%
Residential MF		\$ 277,235.19	\$ 496,415.42	44%
Commercial		\$ 120,751.31	\$ 175,727.81	31%
Institutional		\$ 21,099.83	\$ 26,857.02	21%
Industrial		\$ 2,577.18	\$ 3,762.15	31%
DPW-Streets (total)	\$1,259,010.28		\$ -	
Class 1		\$ 240,070.69	\$ 302,290.66	21%
Class 2		\$ 104,315.13	\$ 178,711.34	42%
Class 3		\$ 412,566.29	\$ 766,821.69	46%
DPW-Sidewalks&parking		\$ 502,058.16	\$ 819,428.93	39%
DPW-Fleets		\$ 685,257.46	\$ 1,118,435.75	39%
Schools		\$13,063,961.95	\$16,783,996.12	22%
	total	\$19,335,528.71	\$25,769,112.68	25%
	total<schools	\$ 6,271,566.76	\$ 8,985,116.56	30%

## Scenario 2: 15% Increase in Employment and Population

Scenario 2 impacts the general fund with all of the same cost and revenues as Scenario 1 plus the impacts of 15% more employment within the City.



A 15% increase in employment results in 1,555 more jobs than what the status quo projections state or 11,918 total jobs.

The most notable difference in revenues between scenario 1 and scenario 2 is the revenue from non-resident property taxes. This revenue line item increases by 16% over the status quo and scenario 1 resulting in over a million dollars in new revenue. Again, this is because of an increase in the number of new non-residential parcels not because of an increase in tax rates. Planning Department development review fees also increase by 9%. Revenue from impact fees also doubles resulting in an additional \$121,533 dollars to the general fund.

On the cost side of the ledger, development review functions will increase by 17% causing an increase of \$49,360 in department costs. The model states that police activity and cost will increase by only 1% but we believe this to be inaccurate. The costs to the Police Department are a function of the number of calls they respond to. The model would need to know current call volume to commercial properties to understand the future impact of additional calls from commercial properties. This information was not available at the time of this writing. The fire department will increase activity to all land use types. Residential increase will be the same as the increase caused in scenario 1. Commercial property will increase call volume by less than 6% depending on the property type. Total Fire Department costs will increase from \$1,805,468 to

\$2,111,607 for a net increase of \$306,139. The Department of Public Works will see an increase in class 1 roads and therefore the costs to maintain them. However, the fiscal impact is approximately only \$3,000. Other road classes do not increase from scenario 1 but they do from the status quo scenario. Sidewalk maintenance will increase by 11%. The total DPW cost increase over the status quo is \$321,002.

<b>Fiscal Impact Summary</b>	<b>Scenario 2</b>
Net Revenue w/out schools	\$ 1,220,448.78
Net Revenue w/ schools	\$ (3,898,679.81)

The net fiscal impact to the City from Scenario 2 is an increase of 1.2 million to the general fund. The School Department has a negative impact of \$3.8 million dollars, the smallest impact of any scenario.

**Table 20: Revenues from Scenario 2**

<b>REVENUE SOURCE</b>		<b>2005</b>	<b>2015 Total</b>	<b>% Change</b>
LOCAL TAXES	\$5,167,976.00			
Total Non-Residential		\$ 1,032,838.00	\$ 3,126,854.42	67%
Total Residential		\$ 4,135,138.00	\$ 5,425,961.05	23.79%
STATE PILOT		\$ 380,514.00	\$ 492,324.65	23%
STATE STATUTORY PAYMENT		\$ 184,000.00	\$ 238,066.76	23%
STATE HIGHWAY AID total	\$ 209,171.98			
Class 1 per mile rate		\$ 124,288.34	\$ 128,990.63	4%
Class 2 per mile rate		\$ 36,630.48	\$ 49,591.55	26%
Class 3 per mile rate		\$ 48,253.16	\$ 70,300.02	31%
PLANNING DEPT FEES		\$ 15,416.67	\$ 22,339.23	31%
RECORDING DOCUMENTS		\$ 50,000.00	\$ 61,690.28	19%
CLERK/TREASURER DEPT FEES		\$ 13,600.00	\$ 16,765.83	19%
RECORDS RESTORATION FEE		\$ 5,000.00	\$ 6,169.03	19%
AMBULANCE CALL CHARGES		\$ 245,416.88	\$ 337,986.53	27%
FIRE DEPT - MISC FEES		\$ 185.74	\$ 235.16	21%
POLICE DEPT - MISC FEES		\$ 4,353.30	\$ 4,938.38	12%
STUMP DUMP		\$ 765.84	\$ 945.25	19%
PUBLIC WORKS DEPT FEES		\$ 18,778.76	\$ 21,715.72	14%
POLICE FINES		\$ 34,636.61	\$ 47,701.31	27%
BUSINESS PERMITS AND LICENSES		\$ 7,292.14	\$ 2,929.29	16%
DOG LICENSES		\$ 2,700.60	\$ 3,333.27	19%
IMPACT FEES			\$ -	
Dormatory			\$ -	
Government Office			\$ 96,292.78	100%
Post Office			\$ -	
all retail			\$ 24,610.00	100%
0 to 10,000sf			\$ -	
> 10,000sf			\$ -	
Office			\$ 81,951.30	100%
Day Care			\$ -	
Clinic			\$ -	
Resturant			\$ -	
Lodging			\$ -	
Banks&Credit Unions			\$ -	
Banks&Credit Unions w/driveup			\$ -	
Sf, MF, PUD, MH		32,935.98	\$ 28,901.97	100%
Congregate Care				
SCHOOLS		\$ 10,413,162.55	\$11,664,827.52	11%
TOTAL WITHOUT SCHOOLS		\$ 6,372,162.55	\$10,296,412.13	38%
TOTAL WITH SCHOOLS		\$ 16,785,907.05	\$21,961,239.65	24%

**Table 21: Costs from Scenario 2**

<b>TOTAL IMPACTS</b>			<b>Totals</b>	<b>% Change</b>
City Council		\$ 33,027.07	\$ 41,907.73	21%
City Manager		\$ 267,029.47	\$ 332,731.31	20%
Clerk-Treasurer		\$ 262,093.51	\$ 323,137.13	19%
Finance		\$ 236,753.60	\$ 289,933.39	18%
TechServ		\$ 159,491.34	\$ 194,313.35	18%
Assessor		\$ 94,062.19	\$ 114,591.58	18%
Planning (total)	\$ 356,243.14	\$ 233,844.09	\$ 285,871.77	18%
Planning DevRev		\$ 122,399.06	\$ 215,321.10	43%
Health		\$ 9,683.47	\$ 11,946.53	19%
City Hall		\$ 141,283.87	\$ 171,522.67	18%
Police		\$ 1,453,548.96	\$ 1,786,276.66	19%
Fire&EMS (total)	\$1,350,104	\$ -	\$ -	
Residential SF/Dup		\$ 928,440.88	\$ 1,392,899.06	33%
Residential MF		\$ 277,235.19	\$ 496,415.42	44%
Commercial		\$ 120,751.31	\$ 190,583.77	37%
Institutional		\$ 21,099.83	\$ 27,654.68	24%
Industrial		\$ 2,577.18	\$ 4,054.97	36%
DPW-Streets (total)	\$1,259,010.28			
Class 1		\$ 240,070.69	\$ 305,151.76	21%
Class 2		\$ 104,315.13	\$ 178,711.34	42%
Class 3		\$ 412,566.29	\$ 766,821.69	46%
DPW-Sidewalks&parking		\$ 502,058.16	\$ 820,441.67	39%
DPW-Fleets		\$ 685,257.46	\$ 1,119,818.03	39%
Schools		\$12,230,591.51	\$16,783,996.12	27%
	total	\$18,538,180.28	\$25,854,101.73	28%
	total<schools	\$ 6,307,588.76	\$ 9,070,105.61	30%

## Conclusions

This research provides a detailed insight into the workings of the Montpelier City general fund. Each revenue source in the general fund was investigated to understand what determines its value. A revenue factor, or a per unit value, was assigned to each revenue source (i.e.: \$/mile). Every line item cost in the general fund was also analyzed to determine what drives the cost for each. Each department was assigned a per unit cost factor. Both qualitative interviews with each department head and quantitative analysis of their budgets were combined to determine these factors. Revenue and cost factors were developed for every department in the general fund. For some departments the revenue and cost factors were broken down into more detailed categories as data allowed.

A fiscal impact model was built on the revenue and cost factors for each department. The model shows the costs and revenue impacts to each general fund department based upon an assumed quantity of development. The development that is analyzed in this model is in the long-term. The model does not analyze the impacts of a single development project on a specific site at a certain point in time. The model analyzes cumulative development occurring between 2005 and 2015. Three different growth scenarios are analyzed. The model was calibrated to the actual revenues and costs for the fiscal year 2004. Some departments had more than one cost and revenue factors depending on how the department received revenues and operated. For example, road maintenance costs are different between the different classes of roads and so are the revenues for each class. Since different types of development creates different amounts of road in each class, the model accounts for the different growth rates, cost, and revenues for each road class. Therefore, the Department of Public Works has several cost and revenue factors.

The three growth scenarios analyzed were status quo growth, growth with 15% more population than expected, and growth with 15% more population and employment than expected. Scenario Status Quo has a population that declines and then rebounds resulting in a flat population growth by the year 2015. School age population will decline by 17.6% over the forecast period. Housing will increase by 296 units. Employment growth is expected to add 1,070 new jobs. Scenario 1 assumes a 15% population increase, resulting in 1,205 more residents, 134 new equalized students<sup>8</sup> and 649 new dwelling units. Employment growth stays the same as in the status quo. Scenario 2, 15% increase in population and employment, assumes all of the same population, student and housing increases as Scenario 1 but adds 15% more jobs on top of what the status quo predicts. The four core components of the scenarios, population, housing, students, and jobs, cause changes in secondary inputs such as the daytime population, type of dwelling units and density, the amount of commercial square feet, the number of commercial buildings, the length of roads in each class, and the length of sidewalks.

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<sup>8</sup> Student population is converted to equalized students because the school district receives revenue based on equalized students.

All three scenarios have a net positive fiscal impact to the general fund. Although, the Status Quo and Scenario 1 are essentially breaking even, lying within .02% of net zero. The scenario that provides the greatest fiscal impacts to the Montpelier General Fund is Scenario 2. Increases in employment provide the greatest benefit to the general fund and provides more relief to the school budget than any other scenario.

What some may find interesting is that an increase of housing within the city limits with no corresponding increases in jobs does not negatively impact the City from a fiscal perspective. The author is keenly aware of many national studies that show that residential development does not pay for itself. This is becoming common knowledge in the planning profession. However, the reader must remember the cases under which those studies were completed. The Cost of Community Services (COCS) studies are typically performed in communities where rapid paced development (some at rates greater than 50%) is occurring in undeveloped raw land where all infrastructure is needed. The Montpelier growth scenario of 15% new housing within the city limits is a very different scenario. All new residential development would be placed on city infrastructure of which there is adequate capacity. Sewer and water infrastructure is funded through dedicated enterprise funds where users of the system pay the exact cost of its use. This is rarely found in any of the COCS case studies in the sprawling suburbs. Montpelier should consider itself wise for establishing these funds. Finally, a 15% increase in dwelling units over a 10-year horizon is growth that is “manageable” according to the model.

### **A word of caution**

It is important for the reader to recognize the limits of this information. The model developed here is a “fiscal impact” model that measures how the Montpelier general fund will be impacted by different development scenarios. It is not an economic model where all the economic values of the city are weighed against each other. Fiscal impacts are one economic value within a full economic value spectrum. Other economic values include environmental quality, community identity or “brand”, historic values, and many components that make up quality of life. The model is accurate in what it calculates (although improvements can be made) but it does not calculate all economic values. For something to have economic value it simply must pass a two-tiered test, first does it provide a benefit to at least one member of society and second, at a price of \$0 there must be more demand than supply. Non-market economic values, which are those economic values not exchanged in the market place, are also components of a community’s character and quality of life. The model tells us that it makes fiscal sense to increase development. It does not tell us how the development will affect other economic values in the city. This determination is made in other realms of decision-making. While new development, above and beyond the expected status quo, can improve the city’s fiscal position it should be done while balancing other non-market economic values.

## Recommendations

A number of recommendations have surfaced from this research.

- 1) The model should be made more dynamic and user friendly. It cannot analyze multiple scenarios at once by a novice with limited experience with spreadsheets or economic development planning. The model provided the answers the Planning Commission was requesting but its potential is far greater. The City should look at this model as a foundation of a fiscal impact analysis tool that needs to be built upon for multiple uses.
- 2) Data from a few of the City departments should be collected to improve the model. For example, the Police Department has call data on volume and location but, due to formatting issues, the information could not be used for this report. The author suggests that the fiscal impacts of commercial development would be less than currently modeled if this data were available.
- 3) Geographic data managed by the City needs improvement. Currently the geographic data in different city departments are not using the same standards. Therefore a map with police data, planning data, and assessor data, for example, is very difficult if not impossible to make. Accurate geographic data is invaluable for a long list of city functions and would improve the delivery of services in every City department. This model would have been greatly enhanced with this information.
- 4) The City should pursue development in an effort to attract new residents and employment. If an additional 15% growth from what is expected can be accomplished without losing the core values of the community the City would be better off for it.
- 5) The capacity of parking may be a limiting factor of employment growth in the downtown area. If employment is encouraged there, a plan to create more parking is necessary. A parking demand and revenue analysis is needed in addition to an engineering study.
- 6) The capacity of personnel in most of the City departments is adequate with the exception of the Planning/Development Review and possibly the Clerk/Treasurer's office, which are near its limit. With a 15% increase in growth, planning would need additional help to process applications and review, approve and inspect projects. The Clerk/Treasurer's office may or may not need additional help but the vault would likely need additional capacity.