



City Council  
Work Session Agenda  
December 14, 2009  
7:00 p.m.

Introduction:

Jon A. Emerton, M.D.

Presentation:

1. Crow Abatement Program, Mark Carrara, Supervisory Biologist, USDA, Wildlife Services

Reports for City Council:

1. Proposed Plan Design Changes, Self Funded Health Insurance, City Manager Mary M. Corriveau, November 6, 2009 and supplemental memorandum from City Manager Corriveau, November 16, 2009
2. Yard Waste Vehicle Purchase Analysis and Recommendation, Superintendent of Public Works, Eugene P. Hayes, December 10, 2009
3. Capital Planning, Office of the New York State Comptroller, Division of Local Government & School Accountability, 2009-MS-5

November 6, 2009

To: The Honorable Mayor and City Council  
From: Mary M. Corriveau, City Manager  
Subject: Proposed Health Insurance Plan Design Changes

In January 2008, I meet with the City's Health Insurance Advisory Committee to discuss changes to the City's health insurance plan design that they would like the City to consider implementing. Following that meeting, I reviewed the proposed changes, as well as the union contracts, to determine the process for considering these types of proposals submitted by the Health Insurance Advisory Committee. On January 30, 2008, after reviewing the Collective Bargaining Agreements, I forwarded a letter to the Committee detailing the steps in the process that need to be completed before their request could be considered by the City Council.

Listed below is an excerpt which details the process for considering these types of plan changes:

“The purpose of this Advisory Committee shall be to review all activity of this self insurance fund on no less than a quarterly basis, and to make recommendations to the respective unions and the City of Watertown, of any proposed conditions and changes of common interest. All such items of common interest will be addressed in the following manner:

- (I) Discussion by Advisory Committee
- (II) Upon majority vote by the Advisory Committee, said items will go to the unions' respective memberships for approval/disapproval.
- (III) Advisory Committee will meet again to discuss the various recommendations from the unions' memberships.
- (IV) If there is unanimous consent of all three (3) unions, such items go to the City Council, for approval.
- (V) If recommendations are rejected by the City Council, items of common interest will remain the same.”

On February 2, 2009, the City Council was presented with the Committee's proposed plan design changes. At that time, the City Council unanimously concurred to hold off considering these proposals until after reviewing the Proposed 2009-10 Budget..

Since that time, the Health Insurance Advisory Committee has relooked at their initial proposal, made modifications and has now submitted for City Council consideration proposed plan design changes. This week, Fringe Benefits Manager, Melanie Rarick contacted me to say that the steps required under the terms of the Collective Bargaining Agreements have been completed and the Health Insurance Advisory Committee is now requesting City Council review of their proposal.

As the contract language indicates the final decision regarding plan changes is vested in the City Council. The proposal before you can be accepted or rejected in full or in part.

A detailed copy of the proposed changes, with a target effective date of January 1, 2010, is attached for your review. Representatives from the Health Insurance Advisory Committee and POMCO will be in attendance at the City Council meeting, should the Council have any questions regarding the proposed changes.

**PROPOSED PLAN DESIGN CHANGES**

**Target Effective Date: January 1, 2010**

*Presented by:*

City of Watertown Health Insurance Committee

## Executive Summary

The City of Watertown Health Insurance Committee presents the following plan changes. If approved, these changes will take effect January 1, 2010 applying to active employees and retirees. The information included is based on 7/1/08-4/30/09 claims experience.

For further detail on the current and proposed plan benefits, please review the pages following this summary. **Projected Impact is 1.37% increase to overall plan costs.**

Page #	Proposed Plan Change	Projected Cost Impact*	Potential Savings (Not Considered in Cost Estimate)
3	Add a National Provider Network	\$7,040 network fees \$40,030 annual savings <i>.56% Decreased Cost</i>	
4	Add coverage for Cardiac Rehabilitation	\$4,600 annually <i>.08% Increased Cost</i>	Prevent repeat events Prevent future hospital stays Decreased time to return to work Improved overall health and risk reduction
5	Revise Multiple Surgery Benefit	\$65,300 annually <i>1.1% Increased Cost</i>	Decreased costs associated with additional operative sessions Decreased time employees are absent from work
8	Add coverage for Air Ambulance	\$5,800 annually <i>.10% Increased Cost</i>	Decreased risks and costs associated with delayed treatment
9	Add coverage for Child Immunizations	\$38,500 annually <i>.65% Increased Cost</i>	Avoid preventable and costly diseases Minimized absenteeism of parents caring for sick children

\*The above illustration and subsequent contents of this presentation represent estimated cost avoidance savings in year one only based on current plan experience, enrollment and trends. Once these savings are in place, the base cost of the plan will be lowered; therefore you will realize the hard dollar savings of these changes year over year. However, cost increases including healthcare inflation will still affect the total cost of the plan. Because healthcare inflation can account for as much as a 10-12% increase per year, consideration of a CPI index to some of the co-payment items would assist in keeping the cost avoidance for in line for future years.

# National Provider Network

## Current Network

There is opportunity for plan savings by adding a national provider network. It is most cost effective for the plan when members obtain services from network providers. The City of Watertown health plan members currently access the following provider network.

- POMCO Provider Network
- 45,000 providers
- Tri-State Area (NY, NJ, CT)

## Proposed Additional Network

In addition to the POMCO network, add a national network that gives members greater access to participating providers. This is especially applicable to retirees and other members who live out of state. With this additional network, members can access the following networks:

POMCO Provider Network	PHCS-Multiplan Provider Network
45,000 providers Tri-State Area (NY, NJ, CT)	600,000 providers Nationwide

## Impact

The national network will increase access to participating providers. This will result in:

- Decreased plan costs as providers will be paid according to the negotiated fee schedule
- Decreased member expense as in-network benefits pay at a higher level
- Decreased member expense because participating providers cannot balance bill

PROJECTED SAVINGS	
PPO Utilization 7/1/07-6/30/08	88.7%
Projected increase to PPO Utilization	7%
Projected Savings from Increased Utilization	\$40,030 annually
Administration Fee	\$7,040 annually
<b>Net Projected Savings</b>	<b>\$32,990 annual savings</b>

*Based on Claims Experience 7/1/07 – 6/30/08*

# Cardiac Rehabilitation

## Current Plan Benefits

Physical therapy and respiratory therapy are covered in full under the outpatient hospital benefit. Cardiac rehabilitation is NOT covered by the plan.

## Proposed Benefit

Revise the plan to include a benefit for Cardiac Rehabilitation which is considered the standard of care.

## Impact

Cardiac rehabilitation helps patients who have had a heart attack or heart surgery. The goal is to stabilize, slow or even reverse the progression of cardiovascular disease. The activities involved help prevent future hospital stays, heart problems, and death related to heart problems and include:

- Helping the patient modify risk factors such as high blood pressure, smoking, high blood cholesterol, physical inactivity, obesity and diabetes.
- Counseling so the patient can understand and manage the disease process
- Beginning an exercise program
- Counseling on nutrition
- Providing vocational guidance to enable the patient to return to work
- Supplying information on physical limitations
- Lending emotional support
- Counseling on appropriate use of prescribed medications

**Coverage for Cardiac Rehabilitation could increase plan costs by \$4,600 annually.**

**This estimate does not consider potential savings achieved by:**

- Prevent repeat events
- Prevent future hospital stays
- Decreased time to return to work
- Benefits associated with a healthier lifestyle
- Improved overall health and risk reduction

## References:

National Institute of Health -

[http://www.nhlbi.nih.gov/health/dci/Diseases/rehab/rehab\\_what.html](http://www.nhlbi.nih.gov/health/dci/Diseases/rehab/rehab_what.html)

# Multiple Surgeries

## Current Plan Benefits

1. When a member has multiple surgical procedures in the same operative session, and the procedures are for separate conditions. For example:

Description	Provider Charges	Current Plan Benefit	Member Expense
Procedure #1 - Condition A	\$1000	100% of Allowed Charges	No Out-of-Pocket
Procedure #2 - Condition B	\$1000	50% of Allowed Charges	No Out-of-Pocket*
Procedure #3 - Condition C	\$1000	Denied	\$1000
Procedure #4 - Condition D	\$1000	Denied	\$1000

\*The provider can balance bill the member for services denied by the plan (ex: Procedures 3 & 4). For services covered at 50% of Allowed Charges, participating network providers will accept this as payment in full and will not balance bill the member.

2. If the multiple surgical procedures are for the same condition or if the procedures are performed by physicians of different specialties for treatment of different conditions, the benefit for the subsequent procedures will not be reduced. For example:

Description	Provider Charges	Current Plan Benefit	Member Expense
Procedure #1 - Condition A	\$1000	100% of Allowed Charges	No Out-of-Pocket
Procedure #2 - Condition A	\$1000	100% of Allowed Charges	No Out-of-Pocket
Procedure #3 - Condition A	\$1000	Denied	\$1000
Procedure #4 - Condition A	\$1000	Denied	\$1000

## Proposed Plan Language

1. When a member has multiple surgical procedures in the same operative session, and the procedures are for separate conditions. For example:

Description	Provider Charges	Current Plan Benefit	Member Expense
Procedure #1 - Condition A	\$1000	100% of Allowed Charges	No Out-of-Pocket
Procedure #2 - Condition B	\$1000	50% of Allowed Charges	No Out-of-Pocket*
Procedure #3 - Condition C	\$1000	50% of Allowed Charges	No Out-of-Pocket*
Procedure #4 - Condition D	\$1000	50% of Allowed Charges	No Out-of-Pocket*

\* Because all services are covered under the plan, a network provider will not balance bill the member. For services covered at 50% of Allowed Charges, participating network providers will accept this as payment in full and will not balance bill the member.

2. If the multiple surgical procedures are for the same condition or if the procedures are performed by physicians of different specialties for treatment of different conditions, the benefit for the subsequent procedures will not be reduced. For example:

Description	Provider Charges	Current Plan Benefit	Member Expense
Procedure #1 - Condition A	\$1000	100% of Allowed Charges	No Out-of-Pocket
Procedure #2 - Condition A	\$1000	100% of Allowed Charges	No Out-of-Pocket
Procedure #3 - Condition A	\$1000	100% of Allowed Charges	No Out-of-Pocket
Procedure #4 - Condition A	\$1000	100% of Allowed Charges	No Out-of-Pocket

**Example:**

A member had five lesions removed in a physician's office because the areas may have been cancerous. Each lesion was a separate surgical procedure, the plan paid \$188 for the removal of two lesions and \$445 for the pathology charges for all five lesions (circled in green).

Because the removal of three lesions was excluded from the plan, the provider billed the member for the remaining \$595 (circled in red).

Dates of Service	Service Code	Total Charge	Ineligible	Covered By Plan	Deductible Amount	Co-Pay Amount	Balance	Paid At	Payment Amount
	35	444.00	310.00	134.00	0.00	0.00	134.00	100% <sup>a</sup>	134.00
	35	336.00	382.00	54.00	0.00	0.00	54.00	100% <sup>a</sup>	54.00
	333	221.00	221.00	0.00	0.00	0.00	0.00	0%	0.00
	333	150.00	150.00	0.00	0.00	0.00	0.00	0%	0.00
	333	184.00	184.00	0.00	0.00	0.00	0.00	0%	0.00
	33	700.00	255.00	445.00	0.00	0.00	445.00	100% <sup>a</sup>	445.00
	<b>TOTAL</b>	<b>2,075.00</b>	<b>1,442.00</b>	<b>633.00</b>	<b>0.00</b>	<b>0.00</b>	<b>633.00</b>		<b>633.00</b>
							<b>Other Insurance Credits or Adjustments</b>		<b>0.00</b>
							<b>Total Net Payment</b>		<b>633.00</b>

Because the plan only covers two procedures per visit, members are encouraged to have multiple visits to have all procedures covered. The member had out-of-pocket expense because all lesions were removed in one visit. To eliminate this expense, the member could have had the lesions removed in three separate visits. This would have resulted in additional days absent from work and delaying the removal of possibly cancerous lesions.

The proposed benefit change encourages the member to obtain medically necessary services in one visit, rather than multiple visits. This could result in:

- Decreased plan costs associated with the additional office visits
- Decreased plan costs associated with additional pathology submissions
- Decreased time the member is absent from work to go to the multiple visits
- Decreased risk and costs associated with delayed treatment
  - In this example, waiting to remove the lesions could have allowed cancer to develop or progress further

## **Impact**

Under the current benefit, two procedures per operative session are covered by the plan. To have additional procedures during the same operation, members pay out-of-pocket. In the example above, the member expense is \$2000.

Revising the multiple surgery benefit will reduce member expense and may also reduce plan costs. The current plan encourages members to only have two procedures per operative session and have additional operations if more procedures are needed.

Each operative session requires the following services:

- Inpatient or Outpatient facility charges
- Anesthesia
- Pre-admission testing
- Antibiotics to prevent infection
- Treatment of potential complications
- Time absent from work

If the plan encourages members to only have two procedures per operative session, the member may have additional operations and incur additional costs for the services above.

**Revising the Multiple Surgery Benefit could increase plan costs by \$65,300 annually.**

**This estimate does not consider potential savings achieved by:**

- Reduce plan costs associated with additional operative sessions for the following services:
  - Inpatient or Outpatient facility charges
  - Anesthesia
  - Pre-admission testing
  - Antibiotics to prevent infection
  - Treatment of potential complications
- Decreased time employees are absent from work

# Air Ambulance

## Current Plan Benefits

Benefits are available for land ambulance transportation when found Medically Necessary. Ambulance transportation benefits are available if the following criteria are met:

- When member could not have been safely transported by other means
- When medically necessary or ordered by a Physician, a police officer or firefighter
- When transported to the nearest facility that can treat the patient's condition
- When transferred from one hospital to another hospital because it is medically necessary

## Proposed Benefit

Revised the plan to provide coverage for air ambulance and subject to the criteria noted above.

## Impact

The member has minimal control when emergency personnel request air medical services.

The Air Medical Service sets forth the criteria for using this service, including:

- Condition is a "life or limb" threatening situation demanding intensive multidisciplinary treatment and care.
- Patients with *physical findings* defined in the adult and pediatric major trauma protocols:
  1. GCS less than or equal to 13
  2. Respiratory Rate less than 10 or more than 29 breaths per minute
  3. Pulse rate is less than 50 or more than 120 beats per minute
  4. Systolic blood pressure is less than 90mmHg
  5. Penetrating injuries to head, neck, torso or proximal extremities
  6. Two or more suspected proximal long bone fractures
  7. Suspected flail chest, spinal cord injury or limb paralysis
  8. Amputation (except digits)
  9. Suspected pelvic fracture
  10. Open or depressed skull fracture

**Coverage for Air ambulance could increase plan costs by \$5,800 annually.**

**This estimate does not consider potential savings achieved by:**

- Decreased risks and costs associated with delayed treatment

## References:

New York State Department of Health

<http://www.health.state.ny.us/nysdoh/ems/policy/05-05.htm>

# Child Immunizations

## Current Plan Benefits

Routine physical examinations and immunizations are covered under the plan for one year from the date of birth, when rendered in a doctor's or licensed provider's office. Routine child immunizations are NOT covered after year one.

## Proposed Benefit

Allow child immunizations from birth up to age 19 based on recommendations set forth by the American Academy of Pediatrics and/or the standards set forth by the New York State Department of Health. If these standards change, the Plan will automatically cover the new recommended standards. Please refer to the following page for the current immunization schedule.

## Impact

Following the recommendations set forth by the American Academy of Pediatrics and the New York State Department of Health is considered the standard of care. Vaccine-preventable diseases have a costly impact, resulting in doctor's visits, hospitalizations, and premature deaths. Sick children can also cause parents to lose time from work.

**Coverage for Child Immunizations could increase plan costs by \$38,500 annually.**

**This estimate does not consider potential savings achieved by:**

- Avoid preventable and costly diseases
- Minimized absenteeism of parents caring for sick children

## References:

Centers for Disease Control and Prevention

<http://www.cdc.gov/vaccines/vac-gen/howvvpd.htm>

New York State Department of Health

[http://www.nyhealth.gov/prevention/immunization/childhood\\_and\\_adolescent.htm](http://www.nyhealth.gov/prevention/immunization/childhood_and_adolescent.htm)

# New York State Recommended Childhood and Adolescent Immunization Schedule

A check ✓ means that this is the earliest and best time for your child to be immunized. If your child misses the "best time" for vaccination, he or she should still be immunized as quickly as possible. Ask your doctor about getting your child caught up.

Vaccine against:	Age							
	Birth	2 months	4 months	6 months	12 months	18-24 months	4-6 years	11-12 years
Hepatitis A					✓	✓		
Hepatitis B	✓	✓ 1-4 mo.		✓ 6-18 mo.	Recommended for any child not previously vaccinated against Hepatitis B virus.			
Diphtheria, Tetanus, Pertussis (DTaP)		✓	✓	✓	✓ 12-18 mo.		✓	
<i>Haemophilus influenzae</i> type b (Hib)		✓	✓	✓ 1	✓ 12-15 mo.			
Polio (IPV)		✓	✓	✓ 6-18 mo.			✓	
Pneumococcal Disease (PCV7) <sup>2</sup>		✓	✓	✓	✓ 12-15 mo.	Ask your doctor if your child 2 years old or older should get vaccinated with PPV23. <sup>2</sup>		
Measles, Mumps, Rubella (MMR)					✓ 12-15 mo.			
Varicella (Chickenpox)					✓ 12-15 mo.		✓	A second catch-up dose is recommended for any child who has had only one dose.
Rotavirus		✓	✓	✓ 1				
Tetanus, Diphtheria, Pertussis (Tdap)								✓ 11-18 yrs.
Meningococcal Disease (MCV4) <sup>3</sup>						Ask your doctor if your child 2 years old or older should get vaccinated with MCV4. <sup>3</sup>		✓
Human Papillomavirus (HPV)								✓ <sup>4</sup>
Influenza					Recommended yearly for all children aged 6 months and older. Ask your doctor if your child should receive one or two doses.			

<sup>1</sup>For some types of Hib and Rotavirus, the 6-month dose is not needed.

<sup>2</sup>PCV7 = Pneumococcal Conjugate Vaccine; PPV23 = Pneumococcal Polysaccharide Vaccine

<sup>3</sup>MCV4 = Meningococcal Conjugate Vaccine

<sup>4</sup>The HPV vaccine is given through a series of three shots over a 6-month period.

November 16, 2009

To: The Honorable Mayor and City Council  
From: Mary M. Corriveau, City Manager  
Subject: Health Insurance Committee Proposed Plan Changes

During the November 9, 2009 Work Session discussion regarding the Health Insurance Committee's Proposed Plan Changes, Council Member Joseph Butler asked for some additional information regarding the proposal on Multiple Surgeries. In response to his question, the following information was provided by the City's Account Manager at POMCO, Christina Iannolo:

"For the time period considered, 7/1/08-4/30/09, there were approximately 480 members who had surgical services performed. These 480 members accounted for approximately 1100 separate surgical events (different dates of service). This equates to approximately 2.3 surgical events per member who had obtained surgical services."

"As we mentioned we cannot determine if members went back in for surgery because the plan will only pay for two procedures per surgical event according to the details of the plan language."

	<h1>MEMORANDUM</h1>	E.P. Hayes Superintendent
	<h2>Dept. Public Works</h2>	Date: 12-10-09 Ref: PW 081-09
<b>To:</b>	Mary Corriveau, City Manager	
<b>Subject:</b>	Yard Waste Vehicle Purchase	

Initially approved in the 2007-08 City Budget and then deferred to the 2009-2010 Capital Budget, funding in the amount of \$290,000 has been approved for the purchase of two new and unused yard waste collection units. The units to be replaced are identical 1994 Ford F700, dual drive chassis with 1987 20yd<sup>3</sup> PAK-MOR rear load packer bodies.

As detailed in the capital budget's acquisition summary sheet, in addition to being a green waste collection unit these units serve as a back-up to the refuse vehicles when needed. Both the body and chassis are showing advanced mechanical wear as well as severe corrosion which has created a series of electrical problems and while we have been able to defer replacement over the past two years, we can no longer continue to operate them in their present capacity. The replacement units will be obtained through the New York State OGS contact.

The purpose of this memorandum is to present the total life cost analysis process employed and the resulting decision to proceed with the purchase of identical vehicles equipped with standard pre-2010<sup>1</sup> diesel engines rather than one using either a hybrid or CNG technology.

In our evaluation of possible engine options, three major types of engines were investigated, those being:

- Diesel (Both 2007 and 2010 EPA compliant)<sup>2</sup>
- Hybrid

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<sup>1</sup> EPA standards for diesel emissions from heavy duty trucks became significantly more stringent in 2007 and will become further restrictive in 2010. Diesel engine manufacturers have responded with units that meet either the 2007 or the 2010 standard. (<http://www.epa.gov/oms/highway-diesel/index.htm>)

<sup>2</sup> Both are available through the NY OGS contract and acceptable for use without changes beyond 2010

- Compressed Natural Gas

Table 1 below summarizes our analysis based upon a total cost of ownership evaluation (Average case assumptions are used for fuel efficiency-related cost savings for newer technology models) :

	Mid-Size 07 Diesel	Mid-Size 2010 Diesel	Mid-Size Hybrid	Large 2007 Diesel	Large Hybrid	Large CNG
Purchase Cost	\$99,105	\$109,105	\$169,105	\$138,369	\$208,369	\$231,195
Modified Chassis	\$129,105	\$139,105	\$199,105	\$168,369	\$238,369	\$261,195
Expected MPG	6	6.3	7.5	2.8	3.5	2.8
1st Year Operating Expenses	\$7,250	\$7,143	\$4,957	\$9,821	\$6,794	\$8,571
TCO 10 Year	\$238,315	\$248,213	\$289,760	\$308,042	\$356,241	\$390,155
TCO 15 Year	\$292,915	\$302,803	\$334,797	\$384,087	\$420,773	\$458,911
TCO 20 Year	\$340,403	\$350,301	\$372,275	\$458,637	\$482,853	\$524,262

**Table 1 – Summary of Refuse Truck Options**

Where applicable, purchase price information was taken from the current New York State Office of Government Services Contract for Refuse Vehicles.

For our analysis maintenance cost on the Hybrid unit was discounted 33% to that anticipated for our standard diesel engine.<sup>3</sup>

Mechanic Training, parts availability, new technology sustainability, modified fuel dispensing systems, etc. were not considered in this evaluation. As such all relative operational numbers were based upon diesel engine parameters.

Since pre 2010 Diesel units remain available, it is my recommendation that we proceed with the purchase of these two

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<sup>3</sup> 33% reduction in costs is based off of initial field tests conducted by Waste Management and New York City. Cost savings in maintenance result, primarily, from significant decrease in wear on brake pads.

units as soon as possible. The cost saving in purchasing a 2007 diesel is approximately \$10,000 per unit.

Should you have any questions concerning this recommendation, please do not hesitate to contact me at your convenience.

A handwritten signature in blue ink that reads "Gene". The letters are cursive and fluid, with a large initial "G".

cc: Peter Monaco, Superintendent of Public Works  
Robert Cleaver, City Purchaser  
James Mills, City Comptroller  
DPW files:  
    1-6 Green Waste Collection Replacement Vehicle  
    1-8 Green Waste Collection Replacement Vehicle

# FISCAL YEAR 2009-2010 CAPITAL BUDGET VEHICLES AND EQUIPMENT REFUSE & RECYLING

PROJECT DESCRIPTION	COST
<p>Yard Waste Collection Units (2):</p> <p>Vehicle 1-6 and 1-8 is one of three (3) identical yard waste collection units. It is a 1994 Ford F700 dual drive chassis with 1987 20yd<sup>3</sup> PAK-MOR rear load packer body. In addition to being a green waste collection unit it also serves as a back-up to the refuse vehicles if needed. Both the body and chassis are showing advanced mechanical wear as well as severe corrosion which has created a series of electrical problems. The replacement units will be obtained through competitive bid or OGS contact, if available.</p> <div style="display: flex; justify-content: space-around;">    </div> <p>Funding to support this project will be through the use of \$62,500 from a transfer from the General Fund in FY 2007-08 for vehicle 1-6 and the remainder (\$227,500) funded through a 10 year bond with FY 2010-11 projected debt service of \$34,125.</p>	<p>\$290,000</p>
<b>TOTAL</b>	<b>\$290,000</b>

**Refuse Truck Details and Summary**

	<u>Mid-Size 2007</u>	<u>Mid-Size 2010</u>	<u>Mid-Size Hybrid</u>	<u>Large 2007 Diesel</u>	<u>Large Hybrid</u>	<u>Large CNG</u>
	<u>Diesel</u>	<u>Diesel</u>				
NY OGS Model	3B		3B + hybrid	4A	4A + hybrid	5
Base Cost	\$99,105	\$109,105	\$169,105	\$138,369	\$208,369	\$231,195
Cost with upgrades	\$129,105	\$139,105	\$199,105	\$168,369	\$238,369	\$261,195
Effective MPG						
Best Case		6.3	8.4		3.92	2.94
Average Case	6	6.15	7.5	2.8	3.5	2.8
Worst Case		6	6.6		3.08	2.66
EPA Compliance	2007	2010	2010	2007	2010	2010

<u>Total Cost of Ownership Summary</u>						
	20	<- Useful Life				
TCO	\$ 340,403	\$ 350,301	\$ 372,275	\$ 458,637	\$ 482,853	\$ 524,262
Fuel Case Estimate	N/A	Best	Best	N/A	Best	Best

<u>Project Details</u>	
<b>Fuel</b>	<b>Change boxed values</b>
Diesel Price per Gallon, 2009	\$2.25
Estimated Annual % Increase	10%
CNG Price per Gallon, 2009	\$1.75
Estimated Annual % Increase	8%
<b>Maintenance</b>	
Diesel	\$5,000
Hybrid	33% reduction from diesel
CNG	0% reduction from diesel
Maint. Annual Cost % Increase	5%
Discount Rate (MARR)	5%
Planned Useful Life	20 Years
Miles per Year per Truck	6,000

<u>Diesel to Alternative Fuel Efficiency Gains/Losses</u>			
	<u>Hybrid</u>	<u>2010 Diesel</u>	<u>CNG</u>
Best Case	40%	5%	5%
Average Case	25%	2.50%	0%
Worst Case	10%	0%	-5%

Yr	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>
<b>Purchase</b>	\$129,105																				
<b>Maintenance</b>																					
<b>Scheduled</b>		\$5,000	\$5,250	\$5,513	\$5,788	\$6,078	\$6,381	\$6,700	\$7,036	\$7,387	\$7,757	\$8,144	\$8,552	\$8,979	\$9,428	\$9,900	\$10,395	\$10,914	\$11,460	\$12,033	\$12,635
<b>Overhaul/Rebuild</b>						\$25,000					\$25,000					\$25,000					
<b>Fuel</b>		\$2,250	\$2,475	\$2,723	\$2,995	\$3,294	\$3,624	\$3,986	\$4,385	\$4,823	\$5,305	\$5,836	\$6,420	\$7,061	\$7,768	\$8,544	\$9,399	\$10,339	\$11,373	\$12,510	\$13,761
<b>Annual Total</b>	\$129,105	\$7,250	\$7,725	\$8,235	\$8,783	\$34,372	\$10,005	\$10,686	\$11,420	\$12,210	\$38,062	\$13,980	\$14,971	\$16,041	\$17,196	\$43,444	\$19,793	\$21,253	\$22,833	\$24,543	\$26,396
<b>PV Annual Total</b>	\$129,105	\$6,905	\$7,007	\$7,114	\$7,226	\$26,931	\$7,466	\$7,595	\$7,730	\$7,871	\$23,367	\$8,174	\$8,337	\$8,507	\$8,685	\$20,897	\$9,068	\$9,273	\$9,487	\$9,712	\$9,948
<b>Running Total (PV)</b>	\$129,105	\$136,010	\$143,017	\$150,130	\$157,356	\$184,287	\$191,753	\$199,348	\$207,077	\$214,948	\$238,315	\$246,489	\$254,826	\$263,332	\$272,017	\$292,915	\$301,982	\$311,255	\$320,742	\$330,455	\$340,403

Years	Total Cost (PV)
10	\$238,315
15	\$292,915
20	\$340,403

**Mid-Size 2010 Diesel Analysis**

Pick Case->  Please select your estimate for fuel efficiency gains versus the standard 2007-compliant Diesel

Yr	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>
<b>Purchase</b>	\$139,105																				
<b>Maintenance</b>																					
<b>Scheduled</b>		\$5,000	\$5,250	\$5,513	\$5,788	\$6,078	\$6,381	\$6,700	\$7,036	\$7,387	\$7,757	\$8,144	\$8,552	\$8,979	\$9,428	\$9,900	\$10,395	\$10,914	\$11,460	\$12,033	\$12,635
<b>Overhaul/Rebuild</b>						\$25,000					\$25,000					\$25,000					
<b>Fuel</b>																					
<b>Best</b>		\$2,143	\$2,357	\$2,593	\$2,852	\$3,137	\$3,451	\$3,796	\$4,176	\$4,593	\$5,053	\$5,558	\$6,114	\$6,725	\$7,398	\$8,137	\$8,951	\$9,846	\$10,831	\$11,914	\$13,106
<b>Average</b>		\$2,195	\$2,415	\$2,656	\$2,922	\$3,214	\$3,535	\$3,889	\$4,278	\$4,705	\$5,176	\$5,694	\$6,263	\$6,889	\$7,578	\$8,336	\$9,170	\$10,087	\$11,095	\$12,205	\$13,425
<b>Worst</b>		\$2,250	\$2,475	\$2,723	\$2,995	\$3,294	\$3,624	\$3,986	\$4,385	\$4,823	\$5,305	\$5,836	\$6,420	\$7,061	\$7,768	\$8,544	\$9,399	\$10,339	\$11,373	\$12,510	\$13,761
<b>Annual Total</b>	\$139,105	\$7,143	\$7,725	\$8,235	\$8,783	\$34,372	\$10,005	\$10,686	\$11,420	\$12,210	\$38,062	\$13,980	\$14,971	\$16,041	\$17,196	\$43,444	\$19,793	\$21,253	\$22,833	\$24,543	\$26,396
<b>PV Annual Total</b>	\$139,105	\$6,803	\$7,007	\$7,114	\$7,226	\$26,931	\$7,466	\$7,595	\$7,730	\$7,871	\$23,367	\$8,174	\$8,337	\$8,507	\$8,685	\$20,897	\$9,068	\$9,273	\$9,487	\$9,712	\$9,948
<b>Running Total (PV)</b>	\$139,105	\$145,908	\$152,915	\$160,028	\$167,254	\$194,185	\$201,651	\$209,246	\$216,975	\$224,846	\$248,213	\$256,387	\$264,724	\$273,230	\$281,915	\$302,813	\$311,880	\$321,153	\$330,640	\$340,353	\$350,301

Years	Total Cost (PV)
10	\$248,213
15	\$302,813
20	\$350,301

**Mid-Size Hybrid Analysis**

Pick Case->  Please select your estimate for fuel efficiency gains versus the standard 2007-compliant Diesel

Yr	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>
<b>Purchase</b>	\$199,105																				
<b>Maintenance</b>																					
<b>Scheduled</b>		\$3,350	\$3,518	\$3,693	\$3,878	\$4,072	\$4,276	\$4,489	\$4,714	\$4,949	\$5,197	\$5,457	\$5,730	\$6,016	\$6,317	\$6,633	\$6,964	\$7,313	\$7,678	\$8,062	\$8,465
<b>Overhaul/Rebuild</b>						\$25,000					\$25,000					\$25,000					
<b>Fuel</b>																					
<b>Best</b>		\$1,607	\$1,768	\$1,945	\$2,139	\$2,353	\$2,588	\$2,847	\$3,132	\$3,445	\$3,790	\$4,169	\$4,585	\$5,044	\$5,548	\$6,103	\$6,713	\$7,385	\$8,123	\$8,936	\$9,829
<b>Average</b>		\$1,800	\$1,980	\$2,178	\$2,396	\$2,635	\$2,899	\$3,189	\$3,508	\$3,858	\$4,244	\$4,669	\$5,136	\$5,649	\$6,214	\$6,835	\$7,519	\$8,271	\$9,098	\$10,008	\$11,009
<b>Worst</b>		\$2,045	\$2,250	\$2,475	\$2,723	\$2,995	\$3,294	\$3,624	\$3,986	\$4,385	\$4,823	\$5,305	\$5,836	\$6,420	\$7,061	\$7,768	\$8,544	\$9,399	\$10,339	\$11,373	\$12,510
<b>Annual Total</b>	\$199,105	\$4,957	\$5,768	\$6,168	\$6,601	\$32,067	\$7,570	\$8,113	\$8,700	\$9,334	\$35,020	\$10,762	\$11,566	\$12,436	\$13,378	\$39,400	\$15,509	\$16,711	\$18,017	\$19,435	\$20,975
<b>PV Annual Total</b>	\$199,105	\$4,721	\$5,231	\$5,328	\$5,430	\$25,125	\$5,649	\$5,766	\$5,888	\$6,017	\$21,499	\$6,292	\$6,440	\$6,595	\$6,757	\$18,952	\$7,105	\$7,291	\$7,486	\$7,691	\$7,905
<b>Running Total (PV)</b>	\$199,105	\$203,826	\$209,057	\$214,386	\$219,816	\$244,941	\$250,590	\$256,356	\$262,244	\$268,261	\$289,760	\$296,053	\$302,493	\$309,088	\$315,845	\$334,797	\$341,902	\$349,193	\$356,679	\$364,370	\$372,275

Years	Total Cost (PV)
10	\$289,760
15	\$334,797
20	\$372,275

Yr	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>
<b>Purchase</b>	\$168,369																				
<b>Maintenance</b>																					
<b>Scheduled</b>		\$5,000	\$5,250	\$5,513	\$5,788	\$6,078	\$6,381	\$6,700	\$7,036	\$7,387	\$7,757	\$8,144	\$8,552	\$8,979	\$9,428	\$9,900	\$10,395	\$10,914	\$11,460	\$12,033	\$12,635
<b>Overhaul/Rebuild</b>						\$25,000					\$25,000				\$25,000						
<b>Fuel</b>		\$4,821	\$5,304	\$5,834	\$6,417	\$7,059	\$7,765	\$8,541	\$9,396	\$10,335	\$11,369	\$12,506	\$13,756	\$15,132	\$16,645	\$18,309	\$20,140	\$22,154	\$24,370	\$26,807	\$29,487
<b>Annual Total</b>	\$168,369	\$9,821	\$10,554	\$11,346	\$12,205	\$38,137	\$14,146	\$15,242	\$16,431	\$17,722	\$44,125	\$20,650	\$22,308	\$24,111	\$26,073	\$53,209	\$30,535	\$33,069	\$35,830	\$38,840	\$42,122
<b>PV Annual Total</b>	\$168,369	\$9,354	\$9,572	\$9,801	\$10,041	\$29,881	\$10,556	\$10,832	\$11,121	\$11,424	\$27,089	\$12,074	\$12,422	\$12,787	\$13,169	\$25,594	\$13,988	\$14,428	\$14,888	\$15,370	\$15,875
<b>Running Total (PV)</b>	\$168,369	\$177,723	\$187,295	\$197,097	\$207,138	\$237,019	\$247,575	\$258,407	\$269,529	\$280,953	\$308,042	\$320,115	\$332,537	\$345,324	\$358,493	\$384,087	\$398,075	\$412,503	\$427,391	\$442,761	\$458,637

Years	Total Cost (PV)
10	\$308,042
15	\$384,087
20	\$458,637

**Large Hybrid Analysis**

Pick Case->  Please select your estimate for fuel efficiency gains versus the standard 2007-compliant Diesel

Yr	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>
<b>Purchase</b>	\$238,369																				
<b>Maintenance</b>																					
<b>Scheduled</b>		\$3,350	\$3,518	\$3,693	\$3,878	\$4,072	\$4,276	\$4,489	\$4,714	\$4,949	\$5,197	\$5,457	\$5,730	\$6,016	\$6,317	\$6,633	\$6,964	\$7,313	\$7,678	\$8,062	\$8,465
<b>Overhaul/Rebuild</b>						\$25,000					\$25,000					\$25,000					
<b>Fuel</b>																					
<b>Best</b>		\$3,444	\$3,788	\$4,167	\$4,584	\$5,042	\$5,546	\$6,101	\$6,711	\$7,382	\$8,120	\$8,933	\$9,826	\$10,808	\$11,889	\$13,078	\$14,386	\$15,825	\$17,407	\$19,148	\$21,062
<b>Average</b>		\$3,857	\$4,243	\$4,667	\$5,134	\$5,647	\$6,212	\$6,833	\$7,516	\$8,268	\$9,095	\$10,004	\$11,005	\$12,105	\$13,316	\$14,647	\$16,112	\$17,723	\$19,496	\$21,445	\$23,590
<b>Worst</b>		\$4,383	\$4,821	\$5,304	\$5,834	\$6,417	\$7,059	\$7,765	\$8,541	\$9,396	\$10,335	\$11,369	\$12,506	\$13,756	\$15,132	\$16,645	\$18,309	\$20,140	\$22,154	\$24,370	\$26,807
<b>Annual Total</b>	\$238,369	\$6,794	\$8,339	\$8,997	\$9,712	\$35,489	\$11,335	\$12,254	\$13,255	\$14,345	\$40,532	\$16,825	\$18,235	\$19,772	\$21,449	\$48,278	\$25,274	\$27,453	\$29,833	\$32,432	\$35,272
<b>PV Annual Total</b>	\$238,369	\$6,470	\$7,564	\$7,772	\$7,990	\$27,807	\$8,458	\$8,709	\$8,972	\$9,247	\$24,883	\$9,838	\$10,154	\$10,486	\$10,833	\$23,222	\$11,578	\$11,978	\$12,396	\$12,834	\$13,294
<b>Running Total (PV)</b>	\$238,369	\$244,839	\$252,403	\$260,175	\$268,165	\$295,972	\$304,430	\$313,139	\$322,110	\$331,357	\$356,241	\$366,078	\$376,232	\$386,718	\$397,551	\$420,773	\$432,351	\$444,329	\$456,725	\$469,559	\$482,853

Years	Total Cost (PV)
10	\$356,241
15	\$420,773
20	\$482,853

**Large CNG Analysis**

Pick Case->  Please select your estimate for fuel efficiency gains versus the standard 2007-compliant Diesel

Yr	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>
<b>Purchase</b>	\$261,195																				
<b>Maintenance</b>																					
<b>Scheduled</b>		\$5,000	\$5,250	\$5,513	\$5,788	\$6,078	\$6,381	\$6,700	\$7,036	\$7,387	\$7,757	\$8,144	\$8,552	\$8,979	\$9,428	\$9,900	\$10,395	\$10,914	\$11,460	\$12,033	\$12,635
<b>Overhaul/Rebuild</b>						\$25,000					\$25,000					\$25,000					
<b>Fuel</b>																					
<b>Best</b>		\$3,571	\$3,929	\$4,321	\$4,754	\$5,229	\$5,752	\$6,327	\$6,960	\$7,656	\$8,421	\$9,263	\$10,190	\$11,209	\$12,330	\$13,562	\$14,919	\$16,411	\$18,052	\$19,857	\$21,843
<b>Average</b>		\$3,750	\$4,125	\$4,538	\$4,991	\$5,490	\$6,039	\$6,643	\$7,308	\$8,038	\$8,842	\$9,727	\$10,699	\$11,769	\$12,946	\$14,241	\$15,665	\$17,231	\$18,954	\$20,850	\$22,935
<b>Worst</b>		\$3,947	\$4,342	\$4,776	\$5,254	\$5,779	\$6,357	\$6,993	\$7,692	\$8,462	\$9,308	\$10,238	\$11,262	\$12,389	\$13,627	\$14,990	\$16,489	\$18,138	\$19,952	\$21,947	\$24,142
<b>Annual Total</b>	\$261,195	\$8,571	\$9,592	\$10,289	\$11,042	\$36,857	\$12,739	\$13,693	\$14,728	\$15,849	\$42,064	\$18,383	\$19,814	\$21,368	\$23,056	\$49,890	\$26,884	\$29,052	\$31,412	\$33,980	\$36,776
<b>PV Annual Total</b>	\$261,195	\$8,163	\$8,700	\$8,888	\$9,084	\$28,878	\$9,506	\$9,732	\$9,968	\$10,216	\$25,824	\$10,748	\$11,033	\$11,332	\$11,645	\$23,998	\$12,316	\$12,675	\$13,052	\$13,447	\$13,861
<b>Running Total (PV)</b>	\$261,195	\$269,358	\$278,059	\$286,946	\$296,031	\$324,909	\$334,415	\$344,147	\$354,115	\$364,331	\$390,155	\$400,903	\$411,936	\$423,268	\$434,913	\$458,911	\$471,226	\$483,902	\$496,954	\$510,401	\$524,262

Years	Total Cost (PV)
10	\$390,155
15	\$458,911
20	\$524,262

Item No.	Item Description	Unit Price
3B.	Truck, Refuse Collection, rear loading, 20 cu. yd. capacity.	\$99,105.00
	<u>Price Additional Option:</u> Hydraulic Can Tipper	\$ 3,550.00
	<u>Price Additional Option:</u> Second Hydraulic Can Tipper on same truck.	\$ 2,900.00
<p>Delivery: 180 Days A.R.O            Make &amp; Model of Cab-Chassis: Sterling Acterra            Unit Compaction Density: 750 lb./cu. yd.            Gross Compacted Weight Rating (GCWR): 15,000 lbs.            Cab-to-Axle Dimension: 138 in.            Gross Vehicle Weight Rating: 35,000 lbs.            Make &amp; Model of Body: PakMor R100B            Capacity of Body (excluding loading hopper): 20 cu. yds.            Capacity of Loading Hopper: 2.05 cu. yd.  <u>Gauges of Body Steel:</u>            Top: 11GA High Tensile            Sides: 11GA High Tensile            Floor: 10GA High Tensile            Access Door Size: 30" L x 30" W            Hopper Body and Floor Packing Blade: 1/4 inch High Tensile            Capacity of Overhead Winch: 8,000 lbs.            Packing Blade Compaction Force: 45,236 p.s.i.            Packing Cylinder Diameter: 4"            Make &amp; Model of Can Tipper: Boss Slenderline - 50'S            Capacity of Hydraulic Reservoir: 30 gal.  <u>Diesel Engine:</u> Make &amp; Model: Mercedes-Benz MBE900            HP &amp; Torque: 210hp &amp; 520 lb. ft.            Alternator Capacity: 160 amps            Battery Capacity: 1,850 C.C.A.            Automatic Transmission: Make &amp; Model: Allison 3500-RDS w/PTO Provision            Number of Forward Speeds: 5  <u>Front Axle:</u> Make &amp; Model: Meritor MFS 12-143A            Capacity: 12,000 lbs.  <u>Rear Axle:</u> Make &amp; Model: Alliance ARS-23 0-4            Capacity: 23,000 lbs.            Frame:            Section Modulus: 17.21 cubic inches            Yield Strength: 80,000 p.s.i.            Resisting Bending Moment: 1,376,800 in. lbs.  <u>Radial Ply Tires:</u> Size: 11R22.5            Load Range: 14            Fuel Tank Capacity: 50 gal.            Brake Size: 16.5" x 8" Front 16.5" x 7" rear            Compressor Size: 15.5 C.F.M.</p> <p><b>CONTRACTOR, ITEM 3B: TRACEY ROAD EQUIPMENT</b>  <b>DISCOUNT ON OPTIONS: 10%</b></p>		

Item No.	Item Description	Unit Price
5.	CNG Powered Refuse Collection Truck, rear loading 25 cu. yd. capacity.	\$231,195.00
	<u>Price Additional Option:</u> Hydraulic Can Tipper	\$ 3,632.00
	<u>Price Additional Option:</u> Second Hydraulic Can Tipper on same truck.	\$ 3,874.00
<p>Delivery: 270 Days A.R.O            Make &amp; Model of Cab-Chassis: Amocar ACN64            Unit Compaction Density: 1,000 lb./cu. yd.            Gross Compacted Weight Rating (GCWR): 25,000 lbs.            Cab-to-Axle Dimension: 194 in.            Gross Vehicle Weight Rating: 54,000 lbs.            Make &amp; Model of Body: McNeilus Heavy Duty Rear Loader            Capacity of Body (excluding loading hopper): 25 cu. yd.            Capacity of Loading Hopper: 3 cu. yds.  <u>Gauges of Body Steel:</u>            Top: 10GA High Tensile            Sides: 10GA High Tensile            Floor: 10GA            Access Door Size: 29" L x 24" W            Hopper Body Floor and Packing Blade: 1-1/4 in. high tensile steel            Capacity of Overhead Winch: 12,000 lbs.  <u>Packing Blade:</u> Compaction Force: 2,450 p.s.i.            Packing Cylinder Diameter: 7-1/2"            Make &amp; Model of Can Tipper: McNeilus 5SPH            Capacity of Hydraulic Reservoir: 50 gal.  <u>Diesel Engine:</u> Make &amp; Model: Cummins Westport 1 SLG            HP &amp; Torque: 320HP &amp; 1000 lb-ft            Alternator Capacity: 200 amps            Battery Capacity: 2,250 C.C.A.            Automatic Transmission: Make &amp; Model: Allison 4500 RDS            Number of Forward Speeds: 6  <u>Front Axle:</u> Make &amp; Model: Meritor MFS            Capacity: 20,000 lbs.  <u>Rear Axle:</u> Make &amp; Model: Meritor RT 44-145            Capacity: 44,000 lbs.            Frame: Section Modulus: 35.17 cubic inches            Yield Strength: 120,000 p.s.i.            Resisting Bending Moment: 2,850,000 in. lbs.            Brake Size: 16.5" x 7.0            Compressor Rate: 19.7 C.F.M.  <u>Radial Ply Tires:</u> Size:            Front: 425-65R22.5            Rear: 425-11R22.5            Load Range: Front: 20 ply Rear: 16 ply            Fuel Tank Capacity: 75 (in diesel gallons equivalent)</p> <p><b>CONTRACTOR, ITEM 5: HALLAHAN TRUCK SALES, INC.</b>  <b>DISCOUNT ON OPTIONS: 5%</b></p>		

We will probably purchase the units off the NYS OGS Contract. I am attaching some pertinent excerpts accordingly.

I was thinking more along the lines of the CNG units which will require a fill station (also available from the OGS Contract) but Pete Monaco seems to be thinking more along the electric hybrid.

For our comparison we are starting with the OGS Item 3B unit which is a 20 yard PakMor R100B rear loader with a modified dual Drive (Left hand and right hand driver station). Pete figures that we our final cost will be in the \$125,000 ballpark. He has been quoted an extra \$70,000 for a hybrid unit. Item 5 details a heavy duty, 25-yard unit made by McNeilus which is pretty much the Cadillac of refuse trucks but at a cost of \$232,000 which would probably increase to \$265,000 by the time we did or extras and our dual drive conversion.

We would like to get the unit ordered before the end of the calendar year because if we can then we do not need to go with the new clean diesel engine regulations. (This will avoid a \$10,000 extra for the 2010 engine.)

I am also attaching some info that Kerry Smith put together for me last year when I was looking at which direction we should go relative to the bus system.

I will continue to feed you information and comments as we go.

Item No.	Item Description	Unit Price
4B.	Truck, Refuse Collection, rear loading 25 cu. yd. capacity.	\$138,369.00
	<u>Price Additional Option:</u> Hydraulic Can Tipper	\$ 3,900.00
	<u>Price Additional Option:</u> Second Hydraulic Can Tipper on same truck.	\$ 2,900.00
<p>Delivery: 180 Days A.R.O            Make &amp; Model of Cab-Chassis: Freight Liner M2-112            Unit Compaction Density: 1,000 lb./cu. yd.            Gross Compacted Weight Rating (GCWR): 25,000 lbs.            Cab-to-Axle Dimension: 156-162 in.            Gross Vehicle Weight Rating: 64,000 lbs.            Make &amp; Model of Body: E-Z Pack G-300 C-25            Capacity of Body (excluding loading hopper): 25 cu. yd.            Capacity of Loading Hopper: 3.0 cu. yds.  <u>Gauges of Body Steel:</u>            Top: 10GA High Tensile            Sides: 7GA High Tensile            Floor: 7GA            Access Door Size: 34" L x 29" W            Hopper Body Floor and Packing Blade: 1/4 in. high tensile steel            Capacity of Overhead Winch: 10,000 lbs.  <u>Packing Blade:</u> Compaction Force: 99,000 lbs.            Packing Cylinder Diameter: 5-1/2"            Make &amp; Model of Can Tipper: Q.C. Lifters RS100 Rotary            Capacity of Hydraulic Reservoir: 37 gal.  <u>Diesel Engine:</u> Make &amp; Model: Mercedes-Benz MBE4000            HP &amp; Torque: 350HP &amp; 1350 lb-ft            Alternator Capacity: 150 amps            Battery Capacity: 2,280 C.C.A.            Automatic Transmission: Make &amp; Model: Allison 4000 RDS w/PTO Provision            Number of Forward Speeds: 6  <u>Front Axle:</u> Make &amp; Model: Meritor MFS-20-133A            Capacity: 20,000 lbs.  <u>Rear Axle:</u> Make &amp; Model: Meritor RT 44-145            Capacity: 44,000 lbs.            Frame: Section Modulus: 26.89 cubic inches            Yield Strength: 120,000 p.s.i.            Resisting Bending Moment: 3,217,200 in. lbs.            Brake Size: 16.5" x 6.0            Compressor Rate: 15.5 C.F.M.  <u>Radial Ply Tires:</u> Size:            Front: 425-65R22.5            Rear: 11-R22.5            Load Range: Front: 20 ply Rear: 14 ply            Fuel Tank Capacity: 50 gal.</p> <p><b>CONTRACTOR, ITEM 4B: FLEET MAINTENANCE, INC.</b>  <b>DISCOUNT ON OPTIONS: 15%</b></p>		



THOMAS P. DINAPOLI  
COMPTROLLER

STATE OF NEW YORK  
**OFFICE OF THE STATE COMPTROLLER**  
110 STATE STREET  
ALBANY, NEW YORK 12236

STEVEN J. HANCOX  
DEPUTY COMPTROLLER  
DIVISION OF LOCAL GOVERNMENT  
AND SCHOOL ACCOUNTABILITY  
Tel: (518) 474-4037 Fax: (518) 486-6479

December 11, 2009

Mr. Jeffrey Graham, Mayor and  
Members of the City Council  
City of Watertown  
245 Washington Street  
Watertown, NY 13601

Report Number: S9-9-72

Dear Mayor and Members of the City Council:

A top priority of the Office of the State Comptroller is to help local government officials manage government resources efficiently and effectively and, by so doing, provide accountability for tax dollars spent to support government operations. The Comptroller oversees the fiscal affairs of local governments statewide, as well as compliance with relevant statutes and observance of good business practices. This fiscal oversight is accomplished, in part, through our audits, which identify opportunities for improving operations and City Council governance. Audits also can identify strategies to reduce costs and to strengthen controls intended to safeguard local government assets.

In accordance with these goals, we conducted an audit of 10 municipalities throughout New York State. The objective of our audit was to determine if municipalities are formally planning for their capital needs. Specifically, we sought to answer the following questions: 1) Do municipalities have entity-wide, long-term capital plans adopted by their governing boards? 2) Have the governing boards adequately funded municipal capital needs?

We included the City of Watertown (City) in this audit. Within the scope of this audit, we examined capital purchases and funding, reviewed both formal and informal plans, and interviewed City officials for the period January 1, 2007 through August 31, 2008. Following is a report of our audit of the City of Watertown. This audit was conducted pursuant to Article V, Section 1 of the State Constitution, and the State Comptroller's authority as set forth in Article 3 of the General Municipal Law.

The results of our audit and recommendation have been discussed with City Officials and their comments, which appear in Appendix A, have been considered in preparing this report. City officials generally agreed with our recommendation and indicated they planned to take corrective action. At the completion of our audit of the 10 municipalities,

we prepared a global report that summarizes the significant issues we identified at all of the municipalities audited.

### **Summary of Findings**

The City of Watertown has a formal long-term capital plan, which is updated annually and expands out five years from the current fiscal year. The City Council approves the capital plan during the budget approval process. The City funds its plan through the use of grants, reserves, operating fund appropriations, and by issuing debt. There are several individuals involved in the compilation, review, approval, and implementation of the plan providing for a process that creates an internal system of checks and balances.

### **Background and Methodology**

The City of Watertown is located in Jefferson County, covering approximately 9.3 square miles and has approximately 27,400 residents. The City's budgeted operating expenditures for fiscal year 2007 and 2008 totaled \$44.9 million and \$46.8 million, respectively. During the period, January 1, 2007 through August 31, 2008, annual capital assets and equipment expenditures averaged \$10.4 million. The City has approximately 86 buildings and structures, as well as, other service related infrastructure including 100 miles of road, 100 miles of water pipe, and 100 miles of sewer pipe.

Capital assets are generally defined as those used in operations that have expected useful lives of more than a year. These assets include, but are not limited to, buildings and other facilities, water and sewer infrastructure, streets and highways, equipment, vehicles, and machinery. Capital assets, by their very nature, represent a significant commitment of municipal resources. Their considerable costs and long lives make capital assets a major component of every municipality's operations. To ensure that essential operations continue uninterrupted, local officials must effectively plan for the acquisition and replacement of vital capital assets and infrastructure.

Municipalities are responsible for acquiring and maintaining capital assets and infrastructure within their jurisdictions. This important function should be provided at the greatest possible benefit and the least cost to the taxpayers. Acquiring capital assets or financing capital improvements often requires significant outlays of cash. Capital assets such as machinery and equipment eventually break down and need replacement, and roads, buildings, and infrastructure need periodic repairs and renovation. If a municipality does not give adequate attention to asset replacement and improvement, it must operate in a crisis or emergency environment, using reserve funds, financing through debt, or realigning operating expenditures to fund the repairs. Such scenarios carry consequences that could be avoided with proper capital planning.

To complete our objective, we interviewed staff, observed specific job functions, and examined policies and procedures to gain an understanding of the internal controls in place. We examined all budgets, budget-related support, capital and equipment purchases, and related funding for the period January 1, 2007 through August 31, 2008.

We conducted this performance audit in accordance with generally accepted government auditing standards (GAGAS). Those standards require that we plan and perform our audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

## **Audit Results**

A multi-year capital plan is best developed in the context of a larger strategic plan that spells out a municipality's mission, goals, and objectives. Capital acquisitions should support the local government's long-term goals, and a capital plan should provide the significant assets needed to accomplish these goals. In the absence of a formal strategic vision for the municipality, managers should seek to identify the key objectives of a multi-year capital program.

A long-term plan will help manage capital assets more efficiently. By formulating a plan, officials coordinate tracking, planning, and funding efforts more effectively. In addition, long-term planning for capital asset purchases can provide City officials with other benefits beyond the assured continuance of municipal services. Proper planning can improve the quality of services or reduce costs. Plans for infrastructure improvements and other amenities could make the local government more attractive to businesses, homeowners, and/or tourists. Proper planning may also allow local officials to identify options that result in cost savings such as lower maintenance or energy costs for replacement equipment. Conversely, a lack of planning can result in extra expenses such as wages, supplies, maintenance, and insurance for unnecessary repairs and upkeep.

Creating a Multi-Year Capital Plan – In order to create a multi-year plan, the City should first establish capital program goals and objectives and criteria that are incorporated into a formal policy adopted by the City Council. Such a policy will provide a framework for the City's long-term capital plan. A comprehensive policy should clearly identify the selection criteria for capital acquisitions and list, define, and rank the criteria in order of importance so that department heads and others can effectively gauge capital acquisition requests.

A good plan included an assessment of its capital assets and equipment by maintaining a detailed list of all infrastructure and equipment. The lists should include, but not be limited to, the description, condition, remaining useful life, and replacement costs. With such an inventory, officials can develop a plan based on expected needs. Managers should use the detailed lists of all infrastructure and equipment together with established goals and objectives to identify capital projects and develop a formal long-term capital plan. Estimated costs for the projects should be verified through discussions with department heads, purchasing officers, banks, engineers, potential vendors, State agencies, and local governments.

After local officials address all aspects of the plan, the City Council should approve the capital plan and formally adopt the annual budget, including capital components. This will ensure that funding is coordinated with all required expenditures. An officially adopted capital plan also helps ensure continuity from turnover and administration

changes. The City Council and City officials should periodically review the capital plan and make appropriate adjustments to ensure that projects remain on schedule and within budget.

We found the City of Watertown has a comprehensive formal long-term capital plan which is updated annually and expands out five years from the current fiscal year. The City Council approves the capital plan during the budget approval process. Although there is not a specific policy in place detailing the plans goals and objectives, there are good operating procedures in place and capital plans have been adopted dating back to 1980. The City has also adopted a comprehensive Capital Asset policy, which provides definitions and procedures for accounting for infrastructure and equipment. This could compliment a Capital Planning Policy.

The City Manager's office has the lead role in managing the basic capital assets and infrastructure facilities within the City. The City uses an outside vendor to maintain its fixed assets inventory. The City Comptroller, who is responsible for the capital plan, communicates with the various department heads to ensure that all current capital needs and future capital concerns are addressed.

The City's plan is compiled by the City Comptroller through meetings and input from all of the department heads and other City officials. The City begins capital budgeting in December for the subsequent fiscal year. This involves updates of the prior year's projects as well as input from the department heads. The City Council Members, Mayor and City Manager meet at least two times a month to discuss various issues. During these meetings, the officials discuss issues pertaining to their Capital Plan Budget. They note different situations that may occur and incorporate the update into the current plan. The annual approved operating budget has a capital budget appropriation that is directly supported by the capital plan. When the Council approves the budget, they are also approving the capital plan.

Funding of Capital Assets and Equipment Purchases – Capital acquisitions can consume large amounts of financial resources. Planning for these costly purchases can allow managers time to increase the down payment, thereby decreasing the amount to be borrowed and reducing the associated costs. It also gives managers time to obtain the best purchase price and seek alternative financing sources (e.g., State and Federal aid). Long-term capital plans can also allow managers to spread the acquisition costs over a number of years so that no single budget year is overburdened with several capital purchases. Similarly, the planned replacement of aging assets can prevent costly emergency purchases from disrupting operations, budgets, and tax rates.

Once accurate costs have been attached to each project, funding availability becomes a factor for prioritizing the projects. Funding for capital projects can come from any combination of State or Federal sources, local funds, or the proceeds of debt. State and Federal funding sources include grants, low-interest loans, or the direct provision of equipment, labor, or services. Local funding sources include available fund balances, relevant reserve funds, annual budget appropriations, proceeds from the sale of existing assets, payments under inter-municipal cooperative agreements with other local governments, and private sources such as gifts and donations. When reserve funds are

established, City officials should responsibly establish a plan for their use, anticipated balance requirements, and funding. Projects funded through borrowing have certain associated legal costs and require budgeting for principal and interest payments annually to retire the debt.

The City funds the capital plan through the issuances of debt (bonding), grants (Federal and State), reserves, and operating fund appropriations. The use of any of these funding sources is approved by the City Council. The City Comptroller has a spreadsheet (updated annually) that outlines how each project in the plan will be funded. Based on the review of budget transfers for capital project/plan related issues we have determined that the City of Watertown has properly funded its plan. We also have determined that all purchases were anticipated. Therefore, the Capital Plan is adequately designed and funded.

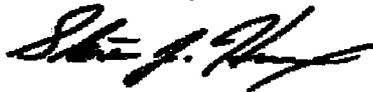
Because the City has planned each purchase and has allocated funding for large equipment, when unforeseen situations arise or equipment deteriorates faster than expected, the City can easily adapt without incurring unnecessary costs or forgoing other necessary items. For example, during the year a front-end loader, which was scheduled for replacement in the following year, required \$17,000 in unexpected repairs, the current year capital plan included funding for the purchase of a \$90,000 dump truck, which was then substituted for the front-end loader.

### **Recommendation**

1. The City Council should establish a capital assets policy that reflects the City's long-term capital goals and objectives and establishes parameters for the development and implementation of a formalized capital plan to compliment their current capital planning efforts.

The City Council has the responsibility to initiate corrective action. A written corrective action plan (CAP) that addresses the findings and recommendations in this report should be prepared and forwarded to our office within 90 days, pursuant to Section 35 of the General Municipal Law. For more information on preparing and filing your CAP, please refer to our brochure, *Responding to an OSC Audit Report*, which you received with the draft audit report. We encourage the City Council to make this plan available for public review in the City Clerk's office.

Sincerely,



Steven J. Hancox  
Deputy Comptroller  
Office of the State Comptroller  
Division of Local Government  
and School Accountability

## **APPENDIX A**

### **RESPONSE FROM CITY OFFICIALS**

The City officials' response to this audit can be found on the following pages.



## CITY OF WATERTOWN, NEW YORK

ROOM 302, MUNICIPAL BUILDING  
245 WASHINGTON STREET  
WATERTOWN, NEW YORK 13601-3380  
(315) 785-7730  
FAX (315) 782-9014

MARY CORRIVEAU  
CITY MANAGER

August 13, 2009

Mr. Eugene A. Camp, Chief Examiner  
Office of the State Comptroller  
State Office Building, Room 409  
333 E. Washington Street  
Syracuse, New York 13202-1428

Dear Mr. Camp:

The City of Watertown has reviewed your audit of the City's internal controls over capital planning for the period covering January 1, 2007 through August 31, 2008.

The audit report's only recommendation is that *"the City Council should establish a capital assets policy that reflects the City's long-term capital goals and objectives and establishes parameters for the development and implementation of a formalized capital plan to compliment their current planning efforts."* While the City agrees that it has not formally established a capital planning policy it does however understand the importance of preparing a capital plan as evidenced by the inclusion of a multi-year capital budget as part of the City's annual budget as far back as at least the City's Fiscal Year 1979-80 Adopted Budget.

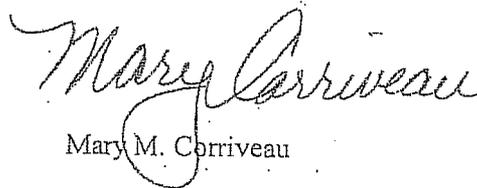
The City's multi-year capital plan involves all departments and is prepared in conjunction with the City's current year proposed budget and five year financial plan. The City realizes the importance of capital planning from both an operational and a long term financial point-of-view. Operationally, the City looks at the issues affecting the community and the departments' ability to serve the community through projected major equipment replacements and/or additions, facility improvements or rehabilitations and infrastructure improvements. Additionally, the City recognizes that the capital plan must consider the City's current and projected long term financial and operational resource levels and determine that the plan is manageable and will be completed timely. From a fiscal point-of-view, the plan must be affordable to the community and meet the City's defined service objectives.

Our multi-year capital plan identifies the anticipated funding sources such as Federal and State grants, borrowing, use of reserves and pay-as-you-go financing. The projected fiscal impacts of the capital plan's net costs from annual debt service or pay-as-you-go financing are then incorporated into the City's overall five year fiscal plan, which is part of the City's annual budget process, to determine the plan's affordability in the context of the overall financial outlook of the City. The capital plan and the current year operating budgets for each fund are continually modified during the proposed budget preparation until staff believes it has both a

current year and multi-year financial plan for the City that is affordable, provides the needed services and can be accomplished within the proposed timeframe.

We appreciate the time and effort of the State Comptroller's Office staff that was involved in the City's review of internal controls over capital planning. We look forward to the issuance of the global report to learn how other communities are addressing their capital planning.

Sincerely,

A handwritten signature in cursive script that reads "Mary Corriveau". The signature is written in black ink and is positioned above the printed name.

Mary M. Corriveau

cc: Mayor Jeffrey E. Graham  
James Mills, City Comptroller

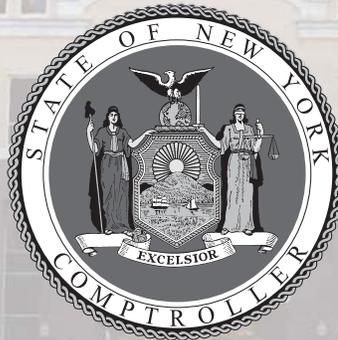
OFFICE OF THE NEW YORK STATE COMPTROLLER



DIVISION OF LOCAL GOVERNMENT  
& SCHOOL ACCOUNTABILITY

# Capital Planning

2009-MS-5



Thomas P. DiNapoli

# Table of Contents

	<b>Page</b>
<b>AUTHORITY LETTER</b>	2
<b>EXECUTIVE SUMMARY</b>	3
<b>INTRODUCTION</b>	5
Background	5
Objective	6
Scope and Methodology	6
Comments of Local Officials	6
<b>CREATING A MULTI-YEAR CAPITAL PLAN</b>	7
Recommendations	9
<b>FUNDING OF CAPITAL ASSETS AND EQUIPMENT PURCHASES</b>	10
Recommendation	12
<b>APPENDIX A</b> Response From Local Officials	13
<b>APPENDIX B</b> Audit Methodology and Standards	14
<b>APPENDIX C</b> How to Obtain Additional Copies of the Report	15
<b>APPENDIX D</b> Local Regional Office Listing	16

# State of New York Office of the State Comptroller

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## **Division of Local Government and School Accountability**

December 2009

A top priority of the Office of the State Comptroller is to help local government officials manage government resources efficiently and effectively and, by so doing, provide accountability for tax dollars spent to support government operations. The Comptroller oversees the fiscal affairs of local governments statewide, as well as compliance with relevant statutes and observance of good business practices. This fiscal oversight is accomplished, in part, through our audits, which identify opportunities for improving operations and local governance. Audits also can identify strategies to reduce costs and to strengthen controls intended to safeguard local government assets.

Following is a report of our audit entitled Capital Planning. This audit was conducted pursuant to Article V, Section 1 of the State Constitution and the State Comptroller's authority as set forth in Article 3 of the General Municipal Law.

This audit's results and recommendations are resources for local government officials to use in effectively managing operations and in meeting the expectations of their constituents. If you have questions about this report, please feel free to contact the local regional office for your county, as listed at the end of this report.

Respectfully submitted,

*Office of the State Comptroller  
Division of Local Government  
and School Accountability*



## State of New York Office of the State Comptroller

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# EXECUTIVE SUMMARY

Capital assets are generally defined as those used in operations that have expected useful lives of more than a year. These assets include, but are not limited to, buildings and other facilities, water and sewer infrastructure, streets and highways, equipment, vehicles, and machinery. Capital assets, by their very nature, represent a significant commitment of municipal resources. Their considerable costs and long lives make capital assets a major component of every municipality's operations. To ensure that essential operations continue uninterrupted, local officials must effectively plan for the acquisition and replacement of vital capital assets and infrastructure.

### **Scope and Objective**

The objective of our audit was to determine if municipalities are formally planning for their capital needs for the period January 1, 2007 through August 31, 2008. Our audit addressed the following related questions:

- Do municipalities have entity-wide, long-term capital plans adopted by their governing boards?
- Have the governing boards adequately funded municipal capital needs?

### **Audit Results**

Of the 10 local governments audited, we found that three of four cities had entity-wide, long-term capital plans approved by their governing boards, while none of the towns and counties did. Three local governments (the other city, a town and a county) had good procedures that included governing board involvement, but only adopted plans annually as part of the budget process. The remaining four local governments allowed decisions to be made on a departmental level. The City of New Rochelle is the only local government that has also established goals and objectives, developed a policy detailing the fundamentals of a multi-year capital plan, and established the criteria used for ranking of purchases to provide a framework for its long-term capital plan.

We also found that all of the local governments audited funded their known municipal capital needs. However, the three local governments with entity-wide, long term capital plans and the three local governments with Board adopted one-year capital plans spent an average of 24 percent of 2008 operating expenditures on maintaining and improving infrastructure while those units

using a departmental level approach only spent about 5 percent. This significant difference in funding capital expenditures suggests that the governing boards relying on department heads for capital planning may not have identified all of their significant capital needs.

### **Comments of Local Officials**

The results of our audit and recommendations have been discussed with local officials and their comments, which appear in Appendix A, have been considered in preparing this report. Local officials generally agreed with our findings and recommendations.

# Introduction

## Background

Capital assets are generally defined as those used in operations that have expected useful lives of more than a year. These assets include, but are not limited to, buildings and other facilities, water and sewer infrastructure, streets and highways, equipment, vehicles, and machinery. Capital assets, by their very nature, represent a significant commitment of municipal resources. Their considerable costs and long lives make capital assets a major component of every municipality's operations. To ensure that essential operations continue uninterrupted, local officials must effectively plan for the acquisition and replacement of vital capital assets and infrastructure.

Municipalities are responsible for acquiring and maintaining capital assets and infrastructure within their jurisdictions. Acquiring capital assets or financing capital improvements often requires significant outlays of cash. Capital assets such as machinery and equipment eventually break down and need replacement, and roads, buildings, and infrastructure need periodic repairs and renovations. If a municipality does not give adequate attention to asset replacement and improvement, it must sometimes operate in a crisis or emergency environment.

We picked 10 local governments throughout New York State. Units picked varied in size, structure and average annual capital and equipment expenditures. The audit included: the Counties of Wayne, Genesee, and Essex; the Towns of Bethlehem, Oyster Bay, and Camillus; and the Cities of Watertown, Poughkeepsie, New Rochelle, and Ithaca. Some of these local governments maintained water and sewer infrastructure while others did not.

<b>Local Government</b>	<b>2008 Operating Budget</b>	<b>Average Annual Capital &amp; Equipment Expenditures <sup>1</sup></b>	<b>Percent of Average Capital Expenditures to 2008 Operating Budget</b>
Town of Oyster Bay	\$233,200,000	\$94,700,000	40.6%
City of Ithaca	\$54,400,000	\$18,000,000	33.1%
City of New Rochelle	\$107,000,000	\$12,500,000	11.7%
City of Watertown	\$46,800,000	\$10,400,000	22.2%
City of Poughkeepsie	\$70,700,000	\$10,000,000	14.1%
Wayne County	\$166,000,000	\$8,800,000	5.3%
Genesee County	\$134,200,000	\$8,400,000	6.3%
Essex County	\$94,300,000	\$4,500,000	4.8%
Town of Bethlehem	\$38,000,000	\$3,700,000	9.7%
Town of Camillus	\$35,200,000	\$1,300,000	3.7%

**Objective**

The objective of our audit was to determine if municipalities are formally planning their capital needs. Our audit addressed the following related questions:

- Do municipalities have entity-wide, long-term capital plans adopted by their governing boards?
- Have the governing boards adequately funded municipal capital needs?

**Scope and Methodology**

We interviewed staff, examined policies and procedures, examined all budgets, budget-related support, capital and equipment purchases, and related funding for the period January 1, 2007 through August 31, 2008.

We conducted our audit in accordance with generally accepted government auditing standards (GAGAS). More information on such standards and the methodology used in performing this audit is included in Appendix B of this report.

**Comments of Local Officials**

The results of our audit and recommendations have been discussed with local officials and their comments, which appear in Appendix A, have been considered in preparing this report. Local officials generally agreed with our findings and recommendations.

<sup>1</sup> As reported to OSC for 2007 and 2008 fiscal years

## Creating a Multi-Year Capital Plan

In order to create an entity-wide, multi-year plan, the local government should first establish capital program goals, objectives and criteria that are incorporated into a formal policy adopted by the governing board. Such a policy will provide a framework for the local government's long-term capital plan. A comprehensive policy should clearly identify the selection criteria for capital acquisitions and list, define, and rank the criteria in order of importance so that department heads and others can effectively gauge capital acquisition requests.

The local government should also assess its capital assets by maintaining a detailed list of its infrastructure, buildings, streets and highways and equipment. The list should include, but not be limited to, the description, condition, remaining useful life, and replacement cost. With such an inventory, officials can develop a plan based on expected needs. Managers should use the detailed list of all infrastructure and equipment together with established goals and objectives to identify capital projects and develop a formal long-term capital plan. Estimated costs for the projects should be verified through discussions with department heads, purchasing officers, engineers, potential vendors, State agencies, and local governments.

After local officials address all aspects of the plan, the governing board should approve the capital plan and formally adopt the annual budget, including the planned capital components. This will ensure that funding is coordinated with other required expenditures. An officially adopted capital plan will ensure that the governing board is aware of capital needs, and play an integral role in key decisions. In addition, it will also help ensure continuity during administration changes. The governing board and local officials should periodically review the capital plan and make appropriate adjustments to ensure that projects remain on schedule and within budget.

We found that only three of 10 local governments tested have entity-wide, long-term capital plans approved by their governing boards; three others had good procedures that involved their governing boards, but they only adopted plans annually as part of the budget process. The remaining four had no planning process; instead they allow the department heads to decide which capital expenditures would be made. A list of local governments and the status of their respective plans follows:

<b>Local Government</b>	<b>Adopted an Entity-Wide, Long-Term Capital Plan</b>	<b>Current Practice</b>
Wayne County	No	Departmental level
Genesee County	No	Only approves 1 year
Essex County	No	Departmental level
Town of Bethlehem	No	Departmental level
Town of Oyster Bay	No	Only approves 1 year
Town of Camillus	No	Departmental level
<b>City of Watertown</b>	<b>Yes</b>	
<b>City of Poughkeepsie</b>	<b>Yes</b>	
City of Ithaca	No	Only approves 1 year
<b>City of New Rochelle</b>	<b>Yes</b>	

Further, the City of New Rochelle is the only local government that has established goals and objectives, developed a policy detailing the fundamentals of a multi-year capital plan, and established the criteria used for ranking of purchases to provide a framework for its long-term capital plan. Wayne County’s Board of Supervisors approved a resolution in August, 2008 establishing a five-year capital planning process which includes deadlines and policies. The other units rely on past practices and informal procedures.

Lastly, we found that six (Cities of New Rochelle and Watertown, Town of Camillus and Wayne, Genesee, and Essex Counties) out of 10 local governments had assessed their capital assets and equipment and maintained detailed lists of all infrastructure and equipment on an entity-wide basis. Although departments generally have inventories of assets and are aware of what assets need replacement, without a comprehensive, centralized record of all capital assets the governing boards cannot properly plan for the maintenance, replacement, and timely funding of capital assets on an entity-wide basis.

Overall, without comprehensive, entity-wide long-term capital planning, local governments risk prioritizing projects inappropriately, as well as not funding them adequately. The following are examples of situations that might have been avoided, or at least made less serious, if the local government had used entity-wide long-term capital planning:

- The Oyster Bay Town Board authorized the issuance of \$4,000,000 in bonds for various improvements to the Old Bethpage Solid Waste Disposal Complex, including \$3,000,000 for the demolition of the incinerator building

in 1995. At that time, a developer was interested in the incinerator building location for a sports facility. The deal with the developer fell through and the incinerator, which is not being used, has remained idle. A long-term capital plan might have provided some time frame for the demolition of the incinerator building and the development or adaptation of the location for private or town use.

- In Essex County, a repair of a leaking roof over the highway garage in conjunction with an addition to the building cost more because of delays in the project. The Public Works Superintendent and his Deputy Superintendent stated that the roof was leaking and in dire need of repair. Approximately \$138,000 was carried forward from the prior year to do the repair. However, when the roof was finally torn off and replaced, there was additional damage to the building/roof discovered, as the water that had been leaking caused the wood to rot. Department officials indicated that because the roof project was put off for so long, \$26,000 in additional damage occurred that could have been avoided. An entity-wide long-term capital plan might have helped the Board of Supervisors better organize, prioritize and fund this project, avoiding unnecessary costs.

## **Recommendations**

1. Governing boards should establish a capital assets policy that reflects their long-term capital goals and objectives, and establishes parameters for the development and implementation of formal capital plans.
2. Local governments should combine existing departmental equipment records with updated infrastructure records to develop a comprehensive set of records on the condition of capital assets, which can be used to plan for the funding of asset replacements.
3. Governing boards should create and adopt an entity-wide, multi-year capital plan that is flexible, is affordable, and considers replacement costs as well as historical costs.

## Funding of Capital Assets and Equipment Purchases

Capital acquisitions can consume large amounts of financial resources. Planning for these costly purchases can allow managers time to increase pay-as-you-go financing thereby decreasing the amount to be borrowed and reducing the associated costs. It also gives managers time to obtain the best purchase price and seek alternative financing sources (e.g., State and Federal aid). Long-term capital plans can also allow managers to spread the acquisition costs over a number of years so that no one budget year is overburdened with several capital purchases. Similarly, the planned replacement of aging assets can prevent costly emergency purchases from disrupting operations, budgets, and tax rates.

Once accurate cost estimates have been developed for each project, funding availability becomes a factor for prioritizing the projects. Funding for capital projects can come from any combination of State or Federal sources, local funds, or the proceeds of debt. State and Federal funding sources include grants, low-interest loans, or the direct provision of equipment, labor, or services. Local funding sources include available fund balances, relevant reserve funds, annual budget appropriations, proceeds from the sale of existing assets, payments under inter-municipal cooperative agreements with other local governments, and private sources such as gifts and donations. When reserve funds are established, local officials should responsibly establish a plan for their use, anticipated balance requirements, and funding. Projects funded through borrowing have certain associated legal costs and require budgeting for principal and interest payments annually to retire the debt.

We found that all of the local governments audited funded various levels of municipal capital needs. The six local governments with Board involvement provided funding necessary to implement the planned capital purchases. Those without long-term formal plans either included a one-year list as a part of the annual budget and appropriated amounts for specific items, or funded departments and allowed the department heads to purchase items as they deemed necessary. The last option of funding the departments has some risks. Without entity-wide planning, the departments may not be allocating enough money to meet their needs. Capital spending as a percentage of the total operating budget for the units audited was as follows:

<b>Analysis of Capital Needs Spending</b>			
<b>Local Governments with a Capital Planning Process that Involves the Board:</b>			
<b>Local Government</b>	<b>Method of Capital Planning</b>	<b>2008 Operating Budget</b>	<b>Average Annual Capital &amp; Equipment Expenditures</b>
Town of Oyster Bay	One year Board plan	\$233,200,000	\$94,700,000
City of Ithaca	One year Board plan	\$54,400,000	\$18,000,000
City of New Rochelle	Multi-Year Board Plan	\$107,000,000	\$12,500,000
City of Watertown	Multi-Year Board Plan	\$46,800,000	\$10,400,000
City of Poughkeepsie	Multi-Year Board Plan	\$70,700,000	\$10,000,000
Genesee County	One year Board plan	\$134,200,000	\$8,400,000
	<b>Total:</b>	<b>\$646,300,000</b>	<b>\$154,000,000</b>
Percentage of Capital Spending to Operating Budget:			23.83%
<b>Local Governments with a Department Level Capital Planning Process:</b>			
Wayne County	Department Level	\$166,000,000	\$8,800,000
Essex County	Department Level	\$94,300,000	\$4,500,000
Town of Bethlehem	Department Level	\$38,000,000	\$3,700,000
Town of Camillus	Department Level	\$35,200,000	\$1,300,000
	<b>Total:</b>	<b>\$333,500,000</b>	<b>\$18,300,000</b>
Percentage of Capital Spending to Operating Budget:			5.49%

The table shows that those units with a departmental level capital planning process spent an average of 5 percent of the 2008 operating budget on capital needs. This is far less than the 24 percent spent by those units using a capital planning process that includes Board involvement. This leads us to conclude that where a departmental capital planning process is used and Board involvement is limited, capital expenditures receive less priority. For example:

- In the Town of Bethlehem, department heads have some discretion as to what capital purchases they will make within the appropriations allotted to them, but capital needs are not prioritized on a Town-wide basis. As a result, in June 2007, the Town declared an emergency to fund the replacement of an elevated sewer trunk line at a cost of \$710,000. Documentation for this project indicates the pipe's condition had been monitored at the departmental level as far back as the 1990s. The condition deteriorated to a point that a failure of the line was to

be reasonably expected. Further, some Board members were made aware of the situation only after it became an emergency and was presented at a Board meeting by the Town's Director of Public Works. We believe that the emergency declaration could have been avoided if Town officials had been better-informed and properly planned for the upgrade of the sewer trunk line.

- In the Town of Camillus, department heads are often asked to stick to the prior year's budget amounts. This may present some difficulties for department heads with the prioritization and execution of capital plans, as it is not likely that capital expenditures will remain constant from year to year.

By creating a multi-year plan and also ensuring that funding is available, local officials decrease the risks of incurring additional unexpected costs, and improve flexibility. In Watertown, when unforeseen situations arise or equipment deteriorates more rapidly than expected, the City can easily adapt without incurring unnecessary costs or forgoing other necessary items. For example, during the year a front-end loader, which was scheduled for replacement in the following year, required \$17,000 in repairs, the current year capital plan included the purchase of a \$90,000 dump truck, which was then substituted for the front-end loader. While this could occur with or without a multi-year plan, having the long-range plan provided the City with a source to quickly reference and a starting place for adjustments.

Governing boards play an essential part in ensuring the fiscal well-being of local governments. Without direct involvement of the governing boards in the decisions to prioritize and finance major capital improvements, there is a risk that departments will not address needs until emergency conditions exist.

## **Recommendation**

4. Governing boards should incorporate entity-wide capital planning into the budget process to ensure that adequate funding is available and that budgetary appropriations align with capital needs.

## APPENDIX A

### RESPONSES FROM LOCAL OFFICIALS

We provided a draft copy of this report to each of the 10 municipalities we audited and requested responses. The following comments were excerpted from the five official responses received. Responses were provided by the City of New Rochelle, Wayne County, the City of Watertown, the Town of Oyster Bay and the Town of Bethlehem.

#### Overall Comments

**City of New Rochelle** — “We have reviewed the document and concur with both your conclusions and recommendations. We stand ready to offer our process as a model for other communities throughout New York State.”

**Wayne County** — “As a commentary on the analysis that was done regarding Capital Needs Spending, it is likely that governments that have no water or sewer infrastructure to maintain will spend significantly less on capital projects. In addition, when comparing percentages of amount spent on capital programs as opposed to jurisdictions overall operating budget it would appear that county governments which have significant state mandated reimbursement programs and pass through payments will generally have a lower percent spent on capital projects.”

**City of Watertown** — “The city realizes the importance of capital planning from both an operational point-of-view and a financial point-of-view. Operationally, the city looks at the issues likely to affect the community over the five year planning period and beyond, and our ability to meet the changing demand. During the development we review and project major equipment replacements and/or additions, facility improvements or rehabilitations, and infrastructure improvements.”

**Town of Oyster Bay** — “The Town does not have any major differences of opinion concerning the findings as detailed in your draft report.”

“... the town of Oyster Bay highly regards any recommendations made by the New York State Comptroller’s Office and will incorporate same in the Town’s corrective action plan.”

**Town of Bethlehem** — “We agree that municipalities need to formally plan their capital needs. In July 2008, The Town Supervisor organized a capital planning committee to identify capital needs and establish priorities for completion. The committee continues to meet on a monthly basis and plans to present a Preliminary Capital Plan at the December 9, 2009 Bethlehem Town Board meeting for Board acceptance.”

## APPENDIX B

### AUDIT METHODOLOGY AND STANDARDS

We interviewed staff, examined policies and procedures, examined all budgets, budget-related support, capital and equipment purchases, and related funding for the period January 1, 2007 through August 31, 2008 in 10 municipalities throughout New York State. These municipalities were chosen based on structure, total recent capital expenditures, and from results of a brief survey with municipalities.

In each unit, we reviewed policies and procedures over capital asset planning, purchasing and funding. We also conducted interviews with staff involved in each key area to help gain an understanding of the adequacy of the internal controls in place.

Review of minutes — We reviewed all meeting minutes during our scope and documented any scope related transfers and/or all situations in which purchases were classified as “emergency” or unusual. We then determined the purpose of all non-routine budget transfers or funding to ensure that all purchases were anticipated.

Expenditure test — To determine if the municipality adequately addressed all reasonable capital needs, we traced total Capital/Equipment Expenditures for a period (calendar year) to the Budgeted amount. All material variances were then looked into further to determine why the budgeted plan was not followed. In some municipalities this could not be done because they did not maintain detailed budget support.

Selected outlay test — To determine if municipalities are adequately planning their capital asset needs, we reviewed a minimum of 100 transactions, 50 from 2007 and 50 from 2008. We traced the individual capital asset purchase to the capital plan to ensure that the purchase was planned. If the municipality did not have a plan, we then compared the purchase to a budget detail. Again, in some municipalities this could not be done because they did not maintain detailed budget support.

We conducted our performance audit in accordance with generally accepted government auditing standards (GAGAS). Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

## APPENDIX C

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