

Analyst Briefing Notes

Budget Committee (January 8, 2007)

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Contacts: John Dilallo, Manager, Financial Planning Division
Tel: (416) 397-4207

Robert Flesch, Senior Financial Planning Analyst
Tel: (416) 397-4297

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PART I: CAPITAL PROGRAM

Executive Summary

- The 2006 Approved Capital Budget of \$394.468 million was 41% or \$162.824 million spent, as at September 30th, 2006. Actual expenditures by year-end are anticipated to be \$312.534 million or 79% of the Approved Capital Budget, as reported in the 3rd Quarter Capital Variance Report. The projection of 2006 funding to be carried forward into the 2007 Recommended Capital Budget is \$63.625 million.
- The 2007 Recommended Capital Budget; 2008 to 2011 Plan and 2012 to 2016 Estimates total \$6,830.195 million of which \$2,696.317 million is projected for the Program's 5-Year Capital Plan requiring no debt funding. The 2007 Recommended Capital Budget includes:
 - previously approved commitments and new/change in scope projects requiring 2007 cash flow of \$346.376 million. This cash flow combined with carry forward funding of \$63.625 million for 2006 projects brings the total 2007 Recommended Capital Budget to \$410.001 million,
 - future year commitments of \$226.399 million in 2008; \$128.528 million in 2009; \$88.551 million in 2010; and, \$53.881 million in 2011. Many of the projects included in the 2007 Recommended Capital Budget require construction duration of several years with cash flow spread out over the period.
- The 2007 Recommended Capital Budget for prior approved and new/change in scope projects (not including 2006 carry forward funding) of \$346.376 million is 72% allocated to state of good repair projects at \$248.230 million; 6% to legislative projects at \$20.840 million; 14% to service improvement projects at \$48.840 million; and, 8% to growth related projects at \$28.466 million.
- The 2007 Recommended Capital Budget includes new funding for several large capital projects such as the: Avenue Road trunkmain replacement; downtown watermain enhancement; end of pipe facilities; sewage pumping station upgrades; and, waste activated sludge thickening upgrades at the Highland Creek Wastewater Treatment Plant. These and other projects included in the 2007 Recommended Capital Budget address the renewal needs of aging and deteriorating infrastructure; increased capacity for water and wastewater facilities to meet population growth; environmental stewardship; new/emerging Provincial legislation; and, priorities outlined in the Mayor's Mandate
- The 5-Year Capital Plan, including carry forward funding from 2006 into 2007, totals \$2,696.317 million with 2007 cashflow of \$410.001 million; \$472.201 million in 2008; \$543.526 million in 2009; \$602.300 million in 2010; and, \$668.289 million in 2011.
- The gross cash flow, including carry forward funding from 2006 into 2007, increases significantly in the 5-Year Capital Plan from \$410.001 million in 2007 to \$668.289 million in 2011. This represents a cash flow increase of approximately 63% or \$258.288 million.

- Funding for the 5-Year Capital Plan advances the Wet Weather Flow Master Plan; reduces the state of good repair backlog by approximately 31% by 2011; continues the City's Water Efficiency Plan; ensures compliance with new Provincial legislation and Ministry of the Environment requirements for drinking water safety and stringent reporting requirements; increases system capacity to keep pace with population growth; and, service improvement projects, such as biosolids treatment and disposal; odour control; automated metering; and, basement flooding protection. In addition, funding is also included for the following priorities set out in the Mayor's Mandate:
 - Implementation of a Ravine Improvement Team that will Clean, Beautify, and Improve Access and Stewardship of Toronto's Ravines.
 - Help to Clean Up Lake Ontario to Make Toronto's Beaches More Swimmable.
 - Implement the Recently Approved Toronto Green Building Standard to Ensure Ecologically Friendly Buildings.
 - Develop a Comprehensive Climate Change Plan to Cut Greenhouse Gas Emissions to Help Combat Global Warming.
- Following review of a September 11, 2006 request from Works Committee, \$1.508 million has been allocated in the 2007 Recommended Capital Budget for the Land Acquisition for Source Water Protection Reserve.
- This report is to be considered concurrently with the 2007 Water and Wastewater Service Rate and Related Matters Report (January, 2007), from the Deputy City Manager and Chief Financial Officer and General Manager for Toronto Water.
- The 2007 Recommended Capital Budget is based on an annualized 2007 Recommended Water and Wastewater Rate increase of 9%. It must be noted that in order to achieve a 9% annualized revenue increase in 2007; the effective rate increase as recommended above is approximately 10.8% due to delays in the billing date for fiscal 2007.

Recommendations

It is recommended that:

1. the 2007 Recommended Capital Budget for Toronto Water with a total project cost of \$331.350 million and a 2007 cash flow of \$410.001 million and future year commitments of \$497.359 million be approved. The 2007 Recommended Capital Budget consists of the following:
 - a) New Cash Flow Funding for:
 - i) 201 new sub-projects with a 2007 total project cost of \$331.350 million that requires cash flow of \$129.726 million in 2007 and a future year commitment of \$73.883 million in 2008; \$40.692 million in 2009; \$42.795 million in 2010; and, \$44.254 million in 2011;
 - ii) 144 previously approved sub-projects with a 2007 cash flow of \$212.612 million and a future year commitment of \$152.516 million in 2008; \$87.836 million in 2009; \$45.756 million in 2010; and, \$9.627 million in 2011;
 - iii) 8 sub-projects from previously approved projects with carry forward funding from 2005 and prior years requiring 2007 cash flow of \$4.038 million and no future year commitments;
 - b) 2006 approved cash flow for 111 previously approved sub-projects with carry forward funding from 2006 into 2007 totalling \$63.625 million;
2. operating impacts of \$3.270 million in 2007 and \$0.153 million in 2008 emanating from the approval of the 2007 Recommended Capital Budget, be approved for inclusion in the 2007 and future year operating budgets;
3. no new debt be issued to finance the 2007 cash flow requirement for the capital program and that the 2007 Recommended Toronto Water Capital Budget be fully funded from service charges; available reserve funds; including development charges; and, other revenues;
4. the General Manager for Toronto Water report to the Budget Committee on any financial implications arising from Council's consideration of the Biosolids and Residuals Master Plan to be presented in 2007;
5. the General Manager for Toronto Water report to the Budget Committee on the operating impacts stemming from the 5-Year Capital Plan prior to the start of deliberations for the 2008 Capital Budget process;
6. the Deputy City Manager for the Parks, Forestry and Recreation Program, in consultation with Toronto Water, identify potential water efficiency strategies regarding its operations and that the General Manager of Parks, Forestry and Recreation report to the Public Works and Infrastructure Committee prior to the start of deliberations for the 2008 Capital Budget process, on the strategies to improve water efficiency and related costs of these initiatives;

7. the Deputy City Manager and Chief Financial Officer and Acting Deputy City Manager for Toronto Water, report to the Budget Committee regarding the funding requirements for implementation of the Wet Weather Flow Master Plan and the feasibility of alternative funding mechanisms prior to the start of deliberations for the 2008 Capital Budget process; and,
8. this report be considered concurrently with the 2007 Water and Wastewater Service Rate and Related Matters Report (January, 2007), from the Deputy City Manager and Chief Financial Officer and General Manager for Toronto Water.

PART I: CAPITAL PROGRAM

2006 Capital Variance Review

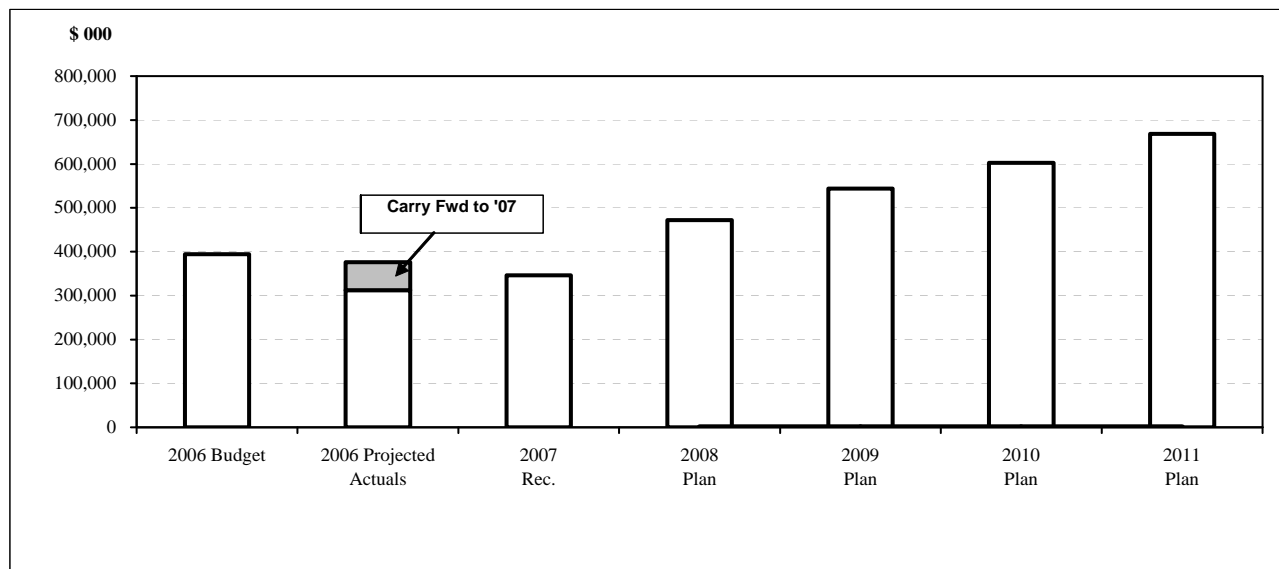
2006 Budget to Actuals Comparison - Total Gross Expenditures (\$000s)					
2006 Approved	Actuals as of September 30 (3rd Qtr Variance)		Projected Actuals at Year End		Balance
\$	\$	% Spent	\$	% Spent	\$ Unspent
394,468	162,824	41	312,534	79	81,934

Comments / Issues:

- The Toronto Water 2006 Approved Capital Budget of \$394.468 million was 41% or \$162.824 million spent, as of September 30th, 2006. Actual expenditures by year-end are anticipated to be \$312.534 million or 79% of the 2006 Approved Capital Budget, as reported in the 3rd Quarter Capital Budget Variance Report. This represents a significant increase in spending over the 2005 rate of approximately 57% or \$202.853 million.
- The high rate of projected year-end actuals for 2006 is the result of construction proceeding on several large projects, which include the McNicoll Watermain Project; Residue Management Projects at R.C. Harris and R. L. Clark Water Treatment Plants and Digester Refurbishment Projects at Ashbridges Bay and the Humber Wastewater Treatment Plants. These projects are on schedule and, in several cases, proceeding ahead of schedule. More than 80% of the watermain and sewer infrastructure program was tendered by mid-year. In addition, staff in the Purchasing and Materials Management Division has been dedicated to the Program in order to gain efficiency in increasing the number of tendered contracts.
- The 2006 Toronto water and wastewater rate increase of 9% assumed an 80% completion rate for the 2006 Approved Capital Budget.
- The carry forward funding included in the 2007 Recommended Capital Budget is \$63.625 million and is lower than the projected unspent actuals identified in the 3rd Quarter Capital Budget Variance Report. The 2007 Recommended Capital Budget does not reflect any subsequent changes to funding being carried forward from 2006 into 2007 based on the unspent cash-flow balance projected as at September 30th, 2006. Adjustments to carry forward funding will be reported through to Budget Committee during its review of the 2007 Recommended Capital Budget.
- Large multi-year projects in the 2006 carry forward funding include the: McNicoll Watermain Project; Water Efficiency Rebate Program; Watermain Cleaning and Lining Project (for final road restoration); and the Ashbridges Bay Wastewater Treatment Plant Rehabilitation Project.

- Toronto Water is forecasting a year-end spending rate of 75% or \$163.039 million for the controllable proportion of the 2006 Approved Capital Budget of \$217.975 million. Projections for the remaining portion of the budget are difficult to make given that there are external factors that make completion difficult to predict. These include construction projects that are weather dependent or environmental assessments awaiting Ministry of Environment or other agency comment

5-Year Capital Plan (2007-2011)



	2006		5-Year Plan					2007-2011
	Budget	Projected Actual	2007 Rec.	2008	2009	2010	2011	
Gross Expenditures:								
Capital Budget & Future Year Commitments	394,468	312,534	216,650	152,516	87,836	45,756	9,627	512,385
Proposed Changes to Commitments			68,498	29,182	16,325	27,072	39,454	180,531
New Plan Estimates			61,228	290,503	439,365	529,472	619,208	1,939,776
1-Year Carry Forward to 2007		63,625						
Total Gross Annual Expenditures & Plan	394,468	376,159	346,376	472,201	543,526	602,300	668,289	2,632,692
Financing:								
Reserves/Reserve Funds	363,600		325,592	424,973	468,715	533,532	610,316	2,363,128
Development Charges	12,496		11,153	12,507	13,965	17,108	27,806	82,539
Federal								
Provincial								
Other Revenue	18,372		9,631	34,721	60,846	51,660	30,167	187,025
Total Financing	394,468		346,376	472,201	543,526	602,300	668,289	2,632,692
By Category:								
Health & Safety								
Legislative	101,980		20,840	8,618	294	297	255	30,304
SOGR	270,334		248,230	323,129	356,960	380,118	402,595	1,711,032
Service Improvement	21,765		48,840	73,818	98,174	142,090	201,351	564,273
Growth Related	389		28,466	66,636	88,098	79,795	64,088	327,083
Total By Category	394,468		346,376	472,201	543,526	602,300	668,289	2,632,692
Yearly SOGR Backlog Estimate (not addressed by current plan)			64,175	(18,645)	(43,058)	(69,567)	(123,731)	(190,826)
Accumulated Backlog Estimate (end of year)		756,454	820,629	801,984	758,926	689,359	565,628	565,628
Operating Impact on Program Costs			3,270					

5-Year Capital Plan Overview

Overview

- The 5-Year Capital Plan is 100% self-sustaining with no debenture financing and does not impact the municipal property tax levy.
- The cash flow funding, excluding carry forward funding from 2006 into 2007, increases significantly over the 5-Year Capital Plan from \$346.376 million in 2007 to \$668.289 million in 2011. This represents a cash flow increase of approximately 93% or \$321.913 million over 5-years. The increase in cash flow is required primarily for the renewal and rehabilitation needs of aging infrastructure and is consistent with the Toronto Water Multi-Year Business Plan.
- **State of Good Repair Projects:** The 5-Year Capital Plan reflects the allocation of significant resources to state of good repair projects to address the renewal needs of aging and deteriorating infrastructure. Projects that maintain assets in a state of good repair represent 65% or \$1,711.032 million of the total new cash flow of \$2,632.692 million.
- **Service Improvement Projects:** Represent approximately 21% or \$564.273 million of the 5-Year Capital Plan. Examples of service improvement projects include: biosolids treatment and disposal; odour control; automated metering; Wet Weather Flow Master Plan; basement flooding protection; landscaping; and, plant optimization.
- **Growth Projects:** Account for 12% or \$327.083 million of the 5-Year Capital Plan. Additional capacity will be required to service a projected population of 3 million people by 2031. To address this need, the 5-Year Capital Plan includes initiatives for improving water efficiency; reducing water loss; and, expansion projects required to service future customer water needs.
- **Legislative Projects:** Account for 1% or \$30.304 million of the 5-Year Capital Plan. These projects address recent and emerging Provincial legislation, which includes Bill 195, Safe Drinking Water Act; Bill 175, Sustainable Water and Sewage Systems Act; and, Bill 81, Nutrient Management Act. Legislative projects also include compliance with the Occupational Health and Safety Act including Controlled Substances Identification and Abatement. Funding for legislative projects is expected to increase in future years as regulations governing water and wastewater services continue to evolve.
- The 5-Year Capital Plan is funded primarily by the Program's reserves, which account for approximately 90% or \$2,363.128 million. Development charges provide funding for approximately 3% or \$82.539 million. Capital cost sharing with York Region represents the remaining 7% or \$187.025 million.
- The Program currently has a significant infrastructure and renewal backlog. For example, over 50% of the water network is at least 50 years old and 8% is 100 years old. Furthermore, 30% of the wastewater collection system is at least 50 years old and 3% is over 100 years old. As outlined above, significant resources have been allocated to state of good repair projects in the 5-Year Capital Plan.

- Over the last 5-years, Toronto Water has an average and annual replacement rate of 0.71% of watermains and 0.37% of sewers. As the optimal replacement rate should range from 1% to 2% per annum, this is creating a significant renewal backlog. The 5-Year Capital Plan reflects an increase in the replacement rate to achieve the optimal level in approximately 10-years and mitigate most of the backlog.

Mayor's Mandate

The 5-Year Capital Plan is aligned with the following priorities outlined in the Mayor's Mandate.

- ***Implementation of a Ravine Improvement Team that will Clean, Beautify, and Improve Access and Stewardship to Toronto's Ravines:***

Projects included in the 5-Year Capital Plan which advance this initiative include stream restoration and tree planting for source water protection.

- ***Help to Clean Up Lake Ontario to Make Toronto's Beaches More Swimmable:***

Toronto Water has developed the Wet Weather Flow Master Plan to manage the discharge of pollutants into waterways and Lake Ontario. Funding included in the 5-Year Capital Plan amounts to \$157.814 million for implementation of the Master Plan. The goal of the Plan is to reduce and ultimately eliminate the adverse impacts of wet weather flow on the built and natural environments to achieve a measurable improvement in ecosystem health of the City's watersheds and waterfront, with particular emphasis on improving water quality along the City's waterfront beaches.

The 5-Year Capital Plan includes funding to complete environmental assessments followed by the design and construction for projects identified in the Master Plan. Projects included in the 5-Year Capital Plan which directly affect improvements to waterfront quality include the following: Etobicoke Waterfront Storm Sewer Discharges; Bonar Creek Stormwater Wetland (Etobicoke Waterfront); Don and Waterfront Trunk Sanitary Sewer and Combined Sewer Overflow Control Project; Coatsworth Cut Storm Sewer and Combined Sewer Overflow Control Project; Eastern Beaches Storm Sewer Discharges; and, the Scarborough Waterfront Combined Sewer Overflow Discharges.

- ***Implement the Recently Approved Toronto Green Building Standard to Ensure Ecologically Friendly Buildings:***

The 5-Year Capital Plan includes financial incentives through the implementation of the City's Water Efficiency Plan to support the retrofit of existing buildings with water conserving fixtures and the retrofit of businesses with water conserving processes; financial support for the implementation of the City's Downspout Disconnection Program which promotes lot level stormwater control; and, the design and construction of a Rainwater Harvesting Pilot Project.

Many of the projects noted above, reflect collaborative efforts between Toronto Water; Parks, Forestry and Recreation; Facilities and Real Estate; City Planning; Buildings Services; Toronto and Region Conservation Authority; and, the Waterfront Secretariat.

- *Develop a Comprehensive Climate Change Plan to Cut Greenhouse Gas Emissions to Help Combat Global Warming:*

Recognizing that power generating facilities are a key contributor to greenhouse gases, in advance of the development of a formal plan, Toronto Water has already initiated several projects to reduce its energy demand. The 5-year Capital Plan includes lighting and electrical upgrades throughout the water and wastewater facilities, Humber WWTP cogeneration, Ashbridges Bay steam heating conversion, replacements of pumps and motors with high efficiency units, implementation of real-time energy monitoring and the water transmission system operations optimizer.

Multi-Year Debt Affordability Target

The City did not set a multi-year debt affordability guideline for the 5-Year Capital Plan. The Program is self-sustaining and does not impact the municipal property tax levy. Operating and capital investments are funded through water and sewage rates established each year by Council and included in the City's By-law (Municipal Code, Chapter 849: Water and Sewage Services). Other sources of funding include capital cost sharing with York Region and development charges.

Capacity

The 2006 Approved Capital Budget of \$394.468 million was 41% or \$162.824 million spent, as of September 30th, 2006. Actual expenditures by year-end are anticipated to be \$312.534 million or 79% of the 2006 Approved Capital Budget. The 2006 projected spending rate by year-end represents a significant improvement from the Program's historic spending capacity. The last several years have shown a consistent ramping up of year-end capital expenditures, with 2004 expenditures of \$191.323 million and 2005 expenditures of \$202.853 million.

The high rate of forecasted year-end actuals is the result of improved internal processes used to plan; procure; prioritize; and, deliver an efficient capital program. For example, Toronto Water has strengthened their operational linkages with Transportation Services and Technical Services through better co-ordination of watermain and sewer infrastructure replacement with the roads reconstruction program. In addition, staff in the Purchasing and Materials Management Division has been dedicated to the Program in order to gain efficiency in increasing the number of tendered contracts.

Please refer to the Issues Section for an expanded discussion on the Program's capital budget spending capacity.

State of Project Readiness, Reallocation or Change in Scope in Project Costs

The Toronto Water 5-Year Capital Plan is ready to proceed. Engineering studies and need assessments have been completed for the wastewater plants. It is anticipated that water plant studies will be completed in 2007. A facility assessment study will commence early in the new year for transmission facility upgrades. Environmental assessments and preliminary designs are underway and nearing completion for a majority of the significant capital projects. The 5-Year Capital Plan also includes the work required to meet Toronto Water's commitments to York Region under the current capital cost sharing agreement.

Cost estimates are based on engineering estimates using historical unit rates from City tenders and data from other municipalities for similar projects. Future year costs have been adjusted based on economic factors that include raw materials; fuel; and, market conditions.

The Firm Capital Plan will allow Toronto Water the flexibility to accelerate projects within the 5-year envelope as needed to meet operational requirements.

Toronto Water Multi-Year Business Plan

The 5-Year Capital Plan aligns with the strategic direction of the Toronto Water Multi-Year Business Plan approved by Council in February, 2005. The Program's existing, new and emerging demands identified in the Toronto Water Multi-Year Business Plan are summarized below.

Addressing Renewal Needs of Aging and Deteriorating Infrastructure:

The Toronto Water Multi-Year Business Plan addresses the need to accelerate capital investment to reduce the Program's significant infrastructure deficit for state of good repair projects. The 5-Year Capital Plan includes \$1,711.032 million in new cash flow for state of good repair projects, as noted previously. These projects are designed to extend the useful life of assets; ensure service reliability; and, postpone replacement.

Increasing Total Capacity to Keep Pace with Population Growth:

Additional capacity will be required to service a projected population of 3 million people by 2031. To address this need, the 5-Year Capital Plan includes \$327.083 million in new cash flow for growth projects. Projects to increase system capacity for future growth include: water storage expansion; water efficiency programs; trunkmain replacement; watermain enhancement; and, water treatment plant expansion.

Stewardship of the Environment:

Funding of projects to advance the stewardship of the environment include the following key initiatives:

- Implementation of the City's Wet Weather Flow Master Plan to improve water quality in watercourses and the waterfront. The current estimated cost of the Plan is \$1.047 billion over 25 years.
- Implementation of the City's Water Efficiency Plan aims at reducing water consumption to create "in-system" capacity, to offset the need for expansions of water and wastewater infrastructure, to service projected population growth.
- Compliance with new Provincial legislation and Ministry of the Environment requirements for drinking water safety (Bill 195 - Safe Drinking Water Act and Bill 81 - Nutrient Management Act) and stringent new provincial reporting requirements, including the pending full cost recovery for water and wastewater services (Bill 175 - Sustainable Water and Sewage Systems Act).
- Multi-phased odour control projects at 3 wastewater treatment facilities.

Continuous Improvements in Service Delivery:

Numerous programs are underway or planned to review best practices; technological upgrades; management; and, operation of the City's water and wastewater infrastructure.

Backlog of Projects – Unmet Needs

Toronto Water has a significant backlog of projects for the watermain/sewer network and facilities. The allocation of resources to state of good repair projects will reduce the backlog by 31% from \$820.629 million in 2007 to \$565.628 million in 2011.

A large proportion of state of good repair projects included in the 5-Year Capital Plan are directed towards reducing the backlog of projects for the watermain and sewer network.

Operating Impact of the 5-Year Capital Plan

Operating budget impacts have been included for 2007 capital projects. The Program is currently identifying the operating impacts for 2008; 2009; 2010; and, 2011 stemming from the 5-Year Capital Plan. The operating impacts in these years will largely depend on the selection of technology (e.g. primary treatment upgrades at Ashbridges Bay Wastewater Treatment Plant). Environmental assessments and pre-design studies currently underway will provide operating budget impacts for inclusion in future year capital budget submissions.

Pre-Approvals

City Council at its meeting of December 5 and 6, 2006 approved the report from the Deputy City Manager and Chief Financial Officer, entitled 'Pre-Approval of 2007 Capital Projects Commitment and Spending' at its meeting of September 15th. City Council on December 5 and 6, 2006, adopted the following motions:

The recommended 2007 pre-approval commitment funding for Toronto Water is \$17.576 million for 31 new sub-projects. Of this amount, \$3.118 million in cash flow is estimated for the first quarter spending requirement. The 2007 cash flow request of \$3.118 million is funded entirely from water and sewer rates, development charges and capital cost sharing with York Region.

The commitment funding of \$17.576 million is based on projects moving through the tendering process with a forecasted award date set for early 2007. Failure to award these contracts in early 2007 may lead to the following:

- Higher Tender Prices: - the best unit prices are typically seen in tenders issued early in the year, while contractors still have resources.
- Expiry of Bid Guarantees Received - this forces a re-tender and subsequent corresponding delay to project completion.

The 2007 recommended pre-approvals also include funding in the amount of \$26.262 million for future year commitments and 2006 funding of \$17.211 million being carried forward into 2007.

**Total 2007 Recommended Cash Flow & Future Year Commitments
(\$000s)**

	2005 & Prior Year Carry Forward	2007 Previously Approved Cash Flow Commitments	2007 New Cash Flow Recommended	2007 Total Cash Flow Recommended	2007 Debt Target	2006 Carry Forward	Total 2007 Cash Flow (Incl 2006 C/Fwd)	2008	2009	2010	2011	2012-2016	Total Cost
Expenditures													
Previously Approved	4,038	212,612		216,650		63,625	280,275	152,516	87,836	45,756	9,627		576,010
Change in Scope			68,498	68,498			68,498	29,182	16,325	27,072	39,454		180,531
New			61,228	61,228			61,228	44,701	24,367	15,723	4,800		150,819
New w/Future Year													0
Total Expenditure	4,038	212,612	129,726	346,376		63,625	410,001	226,399	128,528	88,551	53,881	0	907,360
Financing													
Development Charges	301	10,876	24	11,153		2,641	13,794	8,172	7,977	6,834	6,009		42,786
Reserves/Res Funds	3,697	192,926	128,969	325,592		57,007	382,599	200,914	105,342	71,279	45,236		805,370
Other	40	8,810	781	9,631		3,977	13,608	17,313	15,209	10,438	2,636		59,204
Total Financing	4,038	212,612	129,726	346,376		63,625	410,001	226,399	128,528	88,551	53,881	0	907,360

Comments / Issues:

- The 2007 Recommended Capital Budget is \$410.001 million and includes funding for 2006 projects carried forward into 2007 of \$63.625 million; carried forward funding from 2005 for prior projects of \$4.038 million; previously approved commitment funding of \$212.612 million; and, \$129.726 million for new/change in scope projects.
- Large multi-year projects in the 2006 carry forward funding include the: McNicoll Watermain Project; Water Efficiency Rebate Program; Watermain Cleaning and Lining Project (for final road restoration); and, the Ashbridges Bay Wastewater Treatment Plant Rehabilitation Project.
- Approval of the 2007 Recommended Capital Budget will result in a future year commitment funding for new/change in scope projects of \$73.883 million in 2008; \$40.692 million in 2009; \$42.795 million in 2010; and, \$44.254 million in 2011. Many of the projects included in the 2007 capital program require construction duration of several years with cash flows spread out over the period, such as the: Avenue Road trunkmain replacement; downtown watermain enhancement; end of pipe facilities; sewage pumping station upgrades; and Waste Activated Sludge Thickening Treatment upgrades at Highland Creek Wastewater Treatment Plant.

2007 Recommended Capital Budget

2007 Recommended Capital Budget versus Debt Target

The City did not set a debt affordability guideline for the 2007 Recommended Capital Budget. The Program is self-sustaining and does not impact the municipal property tax levy. Operating and capital investments are funded through water and sewage rates established each year by Council and included in the City’s By-law (Municipal Code, Chapter 849: Water and Sewage Services). Other sources of funding include capital cost sharing with York Region and development charges.

2007 Recommended Capital Budget by Project Category

The 2007 Recommended Capital Budget reflects the allocation of significant funding for state of good repair projects. These projects account for approximately \$248.230 million or 72% of the total budget of \$346.376 million. State of good repair projects are driven by renewal needs for the watermain and sewer network. These projects are designed to extend the useful life of assets; ensure service reliability; and, postpone replacement.

Capacity/Readiness

Toronto Water is ready to proceed with the 2007 Recommended Capital Budget. Engineering studies and needs assessments have been completed for the wastewater plants. It is anticipated that water plant facility needs assessment studies will be completed in 2007. Environmental assessments and preliminary designs are underway and nearing completion for the majority of the significant capital projects.

**Operating Budget Impact
Incremental Operating Impact Summary**

Incremental Operating Budget Impact	2007	2008	2009	2010	2011
Program Costs (net) (\$000s)	3,270	153			
Debt Service Charges (\$000s)					
Approved Positions	5				

Program Incremental Operating Costs

The 2007 Recommended Capital Budget will increase the Program’s Operating Budget, with incremental impacts in 2007 and future years as a result of the following capital projects/subprojects:

Incremental Operating Impact Summary By Project/Sub-Project

2007 Capital Projects/Sub-Projects	2007 (\$000s)	2007 Approved Position Change	2008 (\$000s)
Horgan W.T.P. Expansion	40	1	
R.C. Harris Residue Management	440	1	43
Clark Residue Management Facilities - Construction	40	1	43
Island Plant Winterization	50		
Humber Treatment Plan - Co Generation	700		
Ashbridges Bay Treatment Plant - Phase III	1,700		
Wet Weather Flow Master Plan	100	2	68
Equipment Replacement & Rehabilitation	200		
Total	3,270	5	153

Toronto Water has identified 5 new positions arising from approval of the 2007 Recommended Capital Budget.

The 2007 Recommended Capital Budget includes operating impacts from previously approved and new/change in scope capital projects for 2007 of \$3.270 million and \$0.153 million in 2008.

Debt Service Cost

The 2007 Recommended Capital Budget is funded entirely from water and sewer rates; development charges; and, capital cost sharing with York Region.

PART II: ISSUES FOR DISCUSSION

2007 Toronto Water and Wastewater Rate Increase

The 2007 Recommended Capital Budget is based on an annualized water and wastewater rate increase of 9%. Rate increases of 9% are also projected annually through to 2011, in order to fully fund the capital and operating plans of the Program in a sustainable manner from operating revenues and capital-from-current contributions and without the need for debenturing. It must be noted that in order to achieve a 9% annualized revenue increase in 2007; the effective rate increase as recommended above is approximately 10.8% due to delays in the billing date for fiscal 2007.

This report is to be considered concurrently with the 2007 Water and Wastewater Service Rate and Related Matters Report (January, 2007), from the Deputy City Manager and Chief Financial Officer and General Manager for Toronto Water.

Capacity Issues – Ability to Spend

The 2006 Approved Capital Budget of \$394.468 million was 41% or \$162.824 million spent, as at September 30th, 2006. Actual expenditures by year-end are anticipated to be \$312.534 million or 79% of the Capital Budget, as reported in the 3rd Quarter Capital Budget Variance Report. This represents a significant improvement compared to Toronto Water's historic capital spending capacity.

In the past, the Program's capital budgets have been underspent. The Program's Approved Capital Budgets and spending rate from 2000 to 2006 are provided in the table below. In 2000, approximately 76% or \$183 million of the budget was spent, in 2001 this rate decreased to 60% or \$132 million, in 2002 it was 57% or \$155 million and the rate for 2003 increased to 82% or \$198 million. The capital expenditure to budget ratio was 76% or \$191 million in 2004 and 57% or \$203 million in 2005. Toronto Water is forecasting a spending rate of \$313 million or 79% by year-end for 2006.

(In \$ Millions)	2000	2001	2002	2003	2004	2005	2006*
Capital Budget	241	221	271	242	252	353	394
Actual Expenditures	183	132	155	198	191	203	313
Ratio: Exp. Vs. Budget	76%	60%	57%	82%	76%	57%	79%

* Note: Projections based on Third Quarter Capital Budget Variance Report.

Expenditures by year and percentage increase for the 5-Year Capital Plan is set out in the table below. The 5-Year Capital Plan is an aggressive undertaking, funding increases from \$410.001 million in 2007 to \$668.289 million in 2011, representing a growth of 63% or \$258.288 million.

(In \$ Millions)	2007	2008	2009	2010	2011
Capital Budget	410.001	472.201	543.526	602.300	668.289
\$ Change in Capital Budget		62.200	133.525	192.299	258.288
% Change in Capital Budget		15%	33%	47%	63%

In delivering the capital budget targeted expenditure levels, the Program will continue consultation and detailed co-ordination with consulting engineers and the construction industry to ensure that contract suppliers are able to meet the higher level of demand.

The Toronto Water is committed to monitoring the availability of internal resources and the processes used to plan; procure; prioritize; and, deliver a co-ordinated capital program. This will be of particular importance to Transportation Services and Technical Services given their operational linkages with Toronto Water.

Other Issues

Toronto and Region Conservation Authority 2007 Recommended Capital Budget and 5-Year Capital Plan Funding

The 2007 Recommended Capital Budget provides \$3.300 million to partially fund the Toronto and Region Conservation Authority's 2007 Recommended Capital Budget. The funding is used to advance activities that support source water protection. This aligns with the policy governing the funding of the Authority's budgets that was approved by Council in September 2006. Individual projects within that funding envelope of \$3.300 million are under discussion between the Toronto and Region Conservation Authority and Toronto Water.

Toronto Water has included the following funding in the 5-Year Capital Plan for the Toronto and Region Conservation Authority: \$3.300 million for 2007; \$3.383 million for 2008; \$3.467 million for 2009; \$3.554 million for 2010; and, \$3.643 million for 2011. Toronto Water will continue to evaluate the Toronto and Region Conservation Authority's capital projects individually on merit and relevance, guided by criteria established through practice in recent years to determine future year funding.

Following review of a September 11, 2006 request from Works Committee, \$1.508 million has been allocated in the 2007 Recommended Capital Budget for the Land Acquisition for Source Water Protection Reserve.

Please refer to the 2007 Water and Wastewater Service Rate and Related Matters Report (January, 2007), from the Deputy City Manager and Chief Financial Officer and the General Manager for Toronto Water, regarding the funding long-term strategy for the land acquisition for source water protection reserve account.

Biosolids and Residuals Master Plan

The Biosolids and Residuals Master Plan is intended to provide strategic direction for the management of the City's biosolids and water filtration plant residuals into the year 2025. The Master Plan includes a technical assessment of all viable biosolids and residuals handling end use alternatives currently available.

The Master Plan commenced public consultation in September, 2004. Council has not set a closing date for public comment. In addition, Council has directed that a Peer Review of the decision making model used to form the recommendations outlined in the Master Plan be completed prior to closure of the public consultation. It is anticipated that the Peer Review will be completed early next year. Once completed, the report will be brought forth to Council for consideration.

Given that the gross expenditures are not known at this time, it is therefore recommended that:

the General Manager for Toronto Water report to the Budget Committee on any financial implications arising from Council's consideration of the Biosolids and Residuals Master Plan to be presented in 2007.

Operating Budget Impacts

Operating budget impacts have been included for 2007 capital projects. The Program is currently identifying the operating impacts for 2008; 2009; 2010; and, 2011 stemming from the 5-Year Capital Plan. The operating impacts in these years will largely depend on the selection of technology (e.g. primary treatment upgrades at Ashbridges Bay Wastewater Treatment Plant). Environmental assessments and pre-design studies currently underway will provide operating budget impacts for inclusion in future year capital budget submissions. Given that operating budget impacts have not been included in the 5-Year Capital Plan beyond 2007, it is therefore recommended that:

the General Manager for Toronto Water report to the Budget Committee on the operating impacts stemming from the Recommended 5-Year Capital Plan prior to the start of deliberations for the 2008 Capital Budget process.

Recent and Emerging Legislation

The Toronto Water 5-Year Capital Plan addresses recent and emerging Provincial legislation. Ontario has recently passed 4 significant pieces of legislation that include:

Bill 195, Safe Drinking Water Act: This Act provides control and regulation of drinking-water systems and drinking-water testing for the protection of human health and the prevention of drinking-water health hazards. Water treatment plant upgrades required in order to comply with the Act are nearing completion.

Bill 175, Sustainable Water and Sewage Systems Act: This Act will make it mandatory for municipalities to assess and cost-recover the full amount of water and sewer services. The implementation schedule for Bill 175 has not been determined.

Bill 81, Nutrient Management Act: This Act addresses land-applied materials containing nutrients and requires review and approval of nutrient management plans; certification of land applicators; and, a new registry system for all land applications.

Bill 43, Clean Water Act: This Act provides protection for municipal drinking water supplies through developing collaborative, locally driven, science-based protection plans by municipalities, conservation authorities and the public. Bill 43 has recently been approved and the development of regulations under the Act may have an impact on the implementation schedule of the Wet Weather Flow Master Plan. Further, the financial impact to the City associated with the development of Source Water Protection Plans across the City's six watersheds and Lake Ontario is not known at this time.

As noted above, the full financial implications arising from the new and emerging Provincial legislation is not known at this time. Toronto Water has included estimates in the 5-Year Capital Plan based on current information. Funding for legislative projects is expected to increase in future years as regulations governing water and wastewater services continue to evolve.

Reserves/Reserve Funds

Please refer to the 2007 Water and Wastewater Service Rate and Related Matters Report (January, 2007), from the Deputy City Manager and Chief Financial Officer and the General Manager for Toronto Water, regarding the adequacy and strategies for managing Toronto Water's reserves/reserve funds.

Outstanding Issues from Prior Years**Water Efficiency Plan – Parks, Forestry and Recreation Program**

The 2006 Recommended Capital Budget reflected continued implementation of the Water Efficiency Plan. The Plan was adopted by Council in 2003 and will continue to roll out in 2007 and subsequent years. The overall Plan is estimated to be completed in 2012. The Plan was developed to defer an estimated \$220 million in water and wastewater infrastructure expansion necessary to service projected growth within the City, by providing financial incentives of \$74.3 million for the implementation of water conservation measures, thereby reducing overall water consumption and creating an equivalent "in-system" capacity. It has been designed to reduce water use across the City by 15% of the 2012 projected demand.

Currently, external stakeholders in Toronto are implementing water efficiency strategies as part of their operations. Given the Parks, Forestry and Recreation Program's consumption of water, it is therefore recommended that the:

the Deputy City Manager for the Parks, Forestry and Recreation Program, in consultation with Toronto Water, identify potential water efficiency strategies regarding its operations and that the General Manager of Parks, Forestry and Recreation report to the Public Works and Infrastructure Committee prior to the start of deliberations for the 2008 Capital Budget process, on the strategies to improve water efficiency and related costs of these initiatives.

Wet Weather Flow Master Plan

The Toronto Water 2006 Approved Capital Budget included expenditures for the Wet Weather Master Plan. This initiative will guide future management of stormwater in the City of Toronto, and included an enhanced public education and public outreach program, enhanced municipal operations, shorelines management, source controls, conveyance controls, end-of-pipe controls, stream restoration works and environmental monitoring and plan review. The Plan is being funded entirely from the water rates, as established during the 2004 Operating and Capital Budget process. Council approved in principle the concept of development charges and a stormwater management charge related to a property's contribution to wet weather flow runoff, together with a surcharge in water rates, as components of the longer term funding for the Plan. It is therefore recommended that:

the Deputy City Manager and Chief Financial Officer and Acting Deputy City Manager for Toronto Water, report to the Budget Committee regarding the funding requirements for implementation of the Wet Weather Flow Master Plan and the feasibility of alternative funding mechanisms prior to the start of deliberations for the 2008 Capital Budget process.

Appendix 1

2007 Recommended Capital Budget; 2008 to 2011 Plan and 2012 to 2016 Estimates

Appendix 2

2007 Recommended Cash Flow and Future Year Commitments

Appendix 3
2007 Recommended Capital Projects
with Financing Details

Appendix 4
Reserve / Reserve Fund Review
(\$000s)

Please refer to the 2007 Water and Wastewater Service Rate and Related Matters Report (January, 2007), from the Deputy City Manager and Chief Financial Officer and the General Manager for Toronto Water, regarding the adequacy and strategies for managing Toronto Water's reserves/reserve funds.