SUMMARY

The City of Mississauga fully recognizes its storm water infrastructure is rapidly aging and ecological standards are continually changing and becoming more stringent making it increasingly paramount long overdue repairs be made throughout Peel, including the City, Brampton and Caledon. The conundrum is
a) where to find the funds to make the changes and
b) how to allocate the funds.

The City has struck a committee, named Stormwater Financing Stakeholder Group, or the SFSG, to share the concerns and needs of the various Regional departments and Agencies and taxpayers throughout the Region of Peel. It is hoped six planned meetings over the spring, summer and early fall will provide a forum for key stakeholders to be involved early and throughout the decision making process. Thorough transparency and two-way discussion with residential property owners and owners including resident associations, property managers and other special interest groups, institutional and other tax-exempt entities, including schools, worship places, and health care facilities, the business community, including commercial and industrial property owners, malls, and business associations, will form part of the Project Team report to be delivered to the City of Mississauga City Council.

The City's storm water management system includes storm sewers, catchbasins, inlets and outlets, bridges and culverts, watercourses and ponds. The management of these assets includes the design and construction of capital projects such as management ponds, stream rehabilitation and flood control (mitigation) works, maintenance and rehabilitation of existing infrastructure, environmental compliance, emergency response and clean-up, street sweeping and the enforcement of by-laws.

To support the necessary initiatives, alternative funding beyond property taxes and development charges need to be evaluated and explored. These areas may also include stormwater user fees, sewage user fees, and incentive opportunities to reduce runoff and pollutant discharge, special levies that have specific designations and limitations for usage, and any combination of the above.

City of Mississauga Projects Manager Lincoln Kan, Manager, Environmental Services Transportation and Works Department was introduced along with Mike Gregory, Senior Water Resources Engineer for Consultant (AECOM). Mr. Gregory proceeded to introduce through highlights, the Municipal Stormwater Management Programmes.

OBSERVATIONS, CONCLUSIONS AND RECOMMENDATIONS

The fact the City/Region infrastructure has been aging and is in dire need of repair work, expansion and upgrading, is not a surprise. Stormwater runoff expenditures is a surprise as the public has not been acutely aware of the many far ranging ramifications for continuing to do nothing. The need for injection of fresh funds is well documented. The need is to act now and get the work done. The problem will not go away.

The GWHS must be diligent in making sure it is well represented at the committee level to ensure the uniqueness of the neighbourhood i.e. heavily forested , massive yellow sand base and the use of septic tanks and leeching beds, will work for the area in securing little or no ERU charges.

Described in brief;

1. The typical causes of Stormwater Problems
    a. Urbanization
    b. Aging infrastructure
    c. Changing design standards
    d. Inadequate planning
    e. Inadequate maintenance
    f. Pour design or faulty construction
    g. Climate change

2. Municipal Stormwater Management (SWM) Programme
    a. Capital projects
    b. Operations and maintenance
    c. Administration/Environment
    d. Engineering/Support services
    e. Finance
    f. Public Involvement Programmes
    g. Emergency Response

3. Typical Issues
    a. Public has little knowledge on much money is spent and,
    b. How the programme is financed
    c. Programme Expenditures
    d. Affected by magnitude and extent of the various programmes
    e. How to prioritize the projects
    f. What and how often to do maintenance
    g. Proper asset management i.e. repair/replace, what/when, long/shot term

4. Level of Services
    a. Timelines are evaluated and prioritized
    b. Regulatory standards for stormwater are not explicitly quantified
    c. Affordability often impacted by decisions related to level of services
    d. Public feedback and criticism critical to municipal delivery

5. Future SWM Programme Expenditures
    a. Stormwater management is a service with low profile
    b. Competition for limited public funds is expected to continue
    c. Annual stormwater programmes have to compete with other vital services
    d. Limited flexibility for Municipality to generate revenue

6. Sustainable Level of Services
    a. Ramp up existing services to meet current capital and O&M needs + regulatory requirements
    b. Manage assets in a more sustainable way
    c. Meet service requirements of the public
    d. Provide infrastructures to meet Provincial and Federal water quality requirements

7. Comparison of Funding Options
    a. Stormwater Funding Categories
    b. Taxes and mandatory levies that are not related to specific services
    c. Fees, payments made to offset the cost of specific service and payable by those benefiting from the service
    d. Special levies that have specific designations and limitations
    e. Other means, public-driven partnerships, federal/provincial stimulus grants

8. Stormwater Funding Mechanisms – North America
    a. Refer to Chart 1

9. Stormwater Funding Options – Canada
    b. Property Tax
    c. Developmental/Growth related
    d. Impact fees (new developments)
    e. Cash-in-lieu charges (infill/redevelopment)
    f. Stormwater User Fee i.e. $2-10 per month for avg. homeowner
    g. Flat fee equal to all utility customers
    h. Tiered flat fee: charges assigned by customer type
    i. Variable rate for property owners based on measured impervious area

10. Property Tax Exemptions
    a. Tax exempt properties: government buildings, schools, hospitals, places of worship, other charitable organizations
    b. Core service fee or tax-like payment to tax-exempt properties
    c. “heads and bed” charge to hospitals, post-secondary schools, correctional facilities i.e. $75/person/A or bed/A

11. Dedicated Tax Levy
    a. Required new by-law to dedicate the collection and spending of the funds
    b. Fixed property tax rate itemized on tax bill

12. Development Charges
    a. Pass new bylaws to recover incurred costs for new and required projects
    b. Number of residential dwelling units

13. Cash-in-Lieu Charges
    a. Redevelopment/infill areas
    b. Also known as Fees-in-lieu

14. Development/Growth Related Funding
    a. Developer Related Funding, based in part on contribution to the area

15. Stormwater User Fees
    b. Based on progression of public utilities to operate an enterprise fund
    c. Charges derived on a fairness and equity basis i.e.
    d. Water volume used,
    e. Wastewater generated (grey water)
    f. Solid waste
    g. Stormwater runoff

16. Impervious Area based Stormwater Rate
    a. Any and all non-green or treed surface is subject to storm runoff fees
    b. Charge based on impervious area measurements
    c. Rooftops
    d. Driveways
    e. Parking areas
    f. Patios
    g. Sidewalks

17. Comparison of Funding Options
    a. Refer to Chart 2

18. Stormwater Rate Details
    b. Summary of Sample Areas
    c. Refer to Chart 3

Chart 1.

STORMWATER FUNDING MECHANISMS – NORTH AMERICA

Category/Description	Category/Description
Taxes	**Fees and Special Charges**
Local Income Taxes	Aquifer Protection Fees
Local Sales Taxes	Bond Issuance Fees
Personal (tangible) Property Taxes	Connection Fees
Real (Ad Valorem) Property Taxes	Construction Fees
Selective Sales Taxes	Developer Charges
Provincial/State Sales and Use Taxes	Direct Water Use Charges
	Excavations
	Impact Fees
	Inspection/Monitoring/Testing Fees
Other Means	Permitting Fees
Credit Enhancement Mechanisms	Professional Certification Fees
Debentures/Bonds	Septic System Impact Fees
Fines and Penalties	Special Assessments
Grants	Stormwater Rates
Loans	Tolls
Public-Private Partnership Arrangements	Water Rights Applications Fees
	Wastewater/Water Treatment Rates
	Well Permit/Pumping Fees

Chart 2.

Comparison of Funding Options

Funding Method	City Wide	Used for Capital Costs	Used for O&M Costs	Used for Ener'ng/ Support Costs	Fair & Equitable Allocation	Dedicated Funding Source	Effort to Admin.	Environmental Benefits
Property Tax	Y	Y	Y	Y	N	N	LOW	LOW
Devel'mt Charge	N	Y	N	PARTLY	PARTLY	Y	MEDIUM	MEDIUM
Stormwater Rate	Y	Y	Y	Y	Y	Y	HIGH	HIGH

Chart 3.

SUMMARY OF SAMPLE AREA CHARGES

Location	Impervious Area (m^2)	Dwelling Units	Proposed Charge	
			ERU	Monthly Charge ($)
Single Family	197	1	1	4.40
Multiple Family	?	?	?	?
Boarding Place	?	?	?	?
Apartment/Condo	5,761	25	25	110.0
Fire Station	1,872	Na	10.5	46.3
Place of Worship	5,041	Na	28.3	124.7
Primary/Secondary School	11,184	Na	62.9	276.6
College/University	231,800	Na	1,302.2	5,729.2
Strip Mall	4,004	Na	22.5	99.0
Septic Tank Dwelling	?	1 ?	-1?	Credit?

Using 1 ERU = 178 m^2 and Rate = $4.41/ERU/month

ERU = Equivalent Residential Unit

For Governmental buildings, commercial and industrial properties and institutional buildings the ERU is based on the following;

Range is 150 to 320 m^2
Typical Average is 230 m^2

The calculation for ERU is based on $\frac{\text{Parcel Impervious Area}}{\text{ERU Area}} = \text{Units}$