

City of Toronto
Wet Weather Flow Management Master Plan

Thirty-Day Review: Summary Report

December 2003



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This Report has been prepared by Lura Consulting. Lura has been retained by the City of Toronto as a neutral, third party facilitator of the consultation process for the Wet Weather Flow Management Master Plan. If you have any questions regarding this report, please contact either:

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1.0 INTRODUCTION

1.1 About the Wet Weather Flow Management Master Plan

The Wet Weather Flow Management Master Plan (WWFMMP) is the City of Toronto's plan to reduce or eliminate the adverse impacts of stormwater and improve the health of Toronto's watersheds. The Master Plan identifies new stormwater management practices, policies and control measures for Toronto, and describes how these will be implemented and funded. The Plan takes a long-term view – over the next century – with a particular focus on initiatives and projects that will be implemented by the City and its partners over the next 25 years.

Specifically, the Master Plan is designed to achieve a series of important, beneficial outcomes:

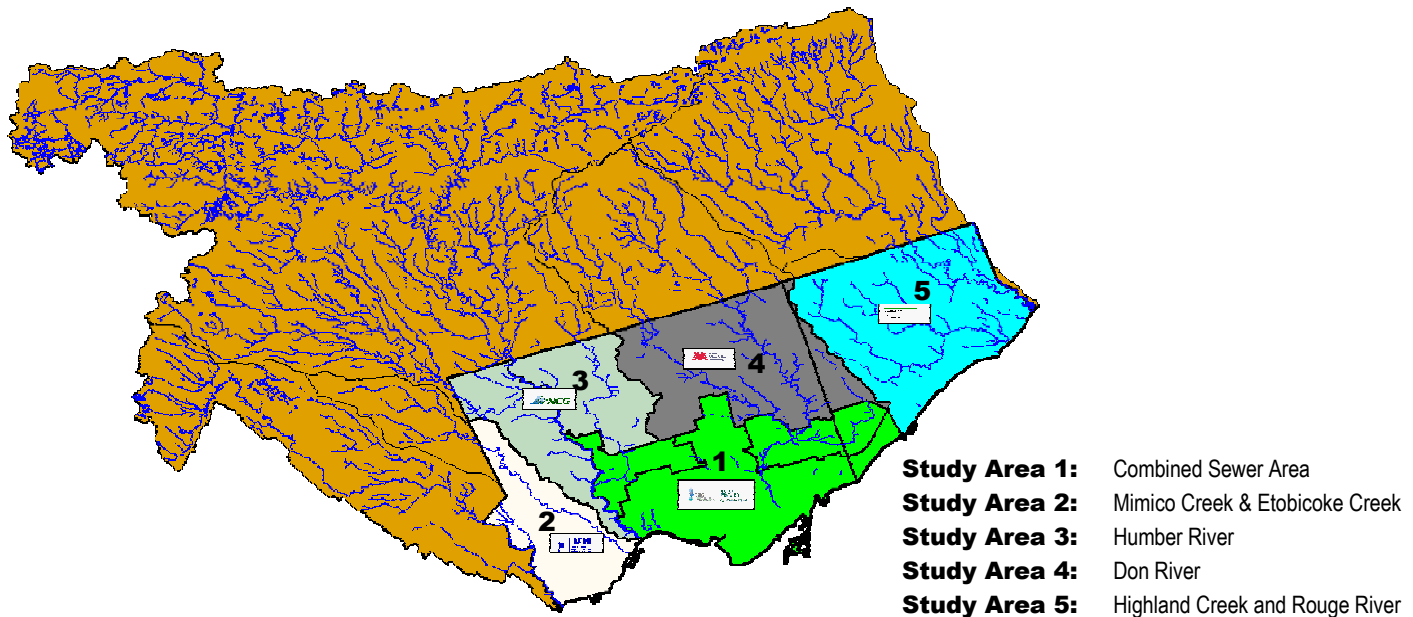
- Swimmable waterfront beaches;
- Elimination of combined sewer overflows;
- Restoration of degraded local streams and improved stream water quality;
- Restoration of aquatic habitat;
- Reduction of algae growth along the waterfront and in streams;
- Basement flooding protection; and
- Protection of the sewer infrastructure from stream erosion.

Initiated in 1997, development of the Master Plan followed Phases 1 and 2 of the Municipal Class Environmental Assessment. The Plan covers the entire City of Toronto, encompassing each of the City's six major watersheds.

In recognition of the importance of approaching this work from a watershed-based perspective, the City was divided into five study areas (see map on following page), four of which generally follow the boundaries of the major watersheds: Etobicoke and Mimico Creeks; Humber River; Don River; and Highland Creek and Rouge River. The fifth study area included all the parts of Toronto that have combined sewers (which transport rain water and sewage in the same pipes). The Toronto waterfront was also an important aspect of the study.

Initial work on the Plan involved gaining a complete understanding of existing environmental conditions relating to stormwater across Toronto. In consultation with a multi-stakeholder Steering Committee (which included community, non-government, government agency and City representatives) and the public, City staff and technical consultants gathered and analyzed huge amounts of information and data. This step also saw the development of a unique vision to guide the planning process. The cornerstone of this vision was a new philosophy of considering stormwater as a resource, as well as the adoption of a hierarchical approach to managing wet weather flows:

- **At source** – first, deal with stormwater where it falls;
- **Conveyance** – next, deal with stormwater as it is being transported across the City; and
- **End-of-Pipe** – finally, deal with stormwater before it is discharged into our streams, rivers and Lake Ontario.



Subsequent work to develop the Master Plan was carried out in four main stages:

- Stage 1 – Development of objectives and targets;
- Stage 2 – Identification of options, indicators and evaluation criteria;
- Stage 3 – Review of alternative management strategies; and
- Stage 4 – Confirmation of preferred management strategies.

As part of this work, an extensive public consultation process was undertaken, following the requirements in the Municipal Class Environmental Assessment process. Multiple consultation activities took place over a two-year period between 2000 and 2002, including:

- Fifteen study area workshops;
- One City-wide workshop;
- 12 “sectoral” focus groups
 - ⇒ Three with City staff, including one with members of Toronto’s Interdepartmental Environment (TIE) Group, and two with District Operations Managers in the Works & Emergency Services Department
 - ⇒ Four with randomly recruited City of Toronto residents
 - ⇒ Five with representatives of the industrial, commercial, institutional (IC&I) and development sectors;
- Outreach to and meetings with community and watershed groups;
- Two meetings with staff representatives from “upper watershed” municipalities;
- Two formal meetings with representatives from government agencies, as well as ongoing meetings and liaison with individual agencies;

- Two newsletters, each mailed to over 5,500 individuals and groups on the project's mailing list;
- One Progress Update mailed to a targeted list of 400 stakeholders with a particular interest in the technical aspects of the study; and
- E-consultation through the City's Web site.

Over 750 people participated in the consultation workshops and meetings, including individual residents and representatives from community, ratepayer and environmental organizations; from the industrial, institutional and development sectors, from neighbouring area and regional municipalities, and from government agencies.

1.2 Thirty Day Review of the Master Plan

Upon completion of the Master Plan in the spring of 2003, the City of Toronto initiated a final thirty-day review of Plan and supporting documentation. In accordance with the Municipal Class Environmental Assessment, the City published a Notice of Study Completion in the Toronto Star on July 11, 12 and 13, 2003. The Notice was also mailed or emailed to the mailing list of over 5,000 developed during the Master Planning process.

The Notice of Completion listed places where the Master Plan could be reviewed – including local libraries, Civic Centres and on the City's Website – and invited written comments from the public on the Plan by August 11, 2003. The Notice also indicated that the recommended Master Plan would be presented to Toronto City Council for approval, subject to comments received during the thirty-day review. A copy of the Notice of Completion is included in Appendix A.

WWFMMP Reports Available During Thirty Day Review

Master Plan Overview and Implementation Plan
Public Consultation Program Summary Report
List of Combined Sewer Overflow and Stormwater Control Alternatives
Evaluation of Management and Operation Practices
Combined Sewer Overview Flow Study Area – Final Report and Appendices
Etobicoke/Mimico Creeks Study Area – Final Report and Appendices
Humber River Watershed Study Area – Final Report and Appendices
Don River Watershed Study Area – Final Report and Appendices
Highland Creek and Rouge River Watershed Study Area – Final Report and Appendices
Waterfront Response – Final Report and Appendices

1.3 Overview of this Summary Report

The purpose of this report is to provide a formal record of the full range of issues and comments raised by participants in the thirty-day review for the WWFMMP. The report also provides responses prepared by City of Toronto staff, in consultation with their consultants, to the comments received during the public review process. In addition to this report, City staff will also

provide an individual written response to each individual or organization that provided written comments during the review period. A complete list of those submitting comments is included in Appendix B.

Following this Introduction, Section 2 provides a high level summary of the major issues raised during the review period. This summary is meant to provide *highlights* of the key issues and concerns raised, along with the City's responses. A complete set of participant comments – extracted from the original written submissions and more detailed City responses is contained in Appendix C.

Finally, Section 3 briefly outlines next steps for the Master Plan, focusing on the next important step – implementation.

2.0 MAJOR ISSUES RAISED AND CITY RESPONSES

This section provides highlights of the major comments and issues raised by the participants during the thirty-day review period, along with responses from City staff. As noted previously, more detailed comments and responses are recorded in Appendix C.

As part of the review process, a wide range of comments were received from three main “categories” of participants:

- **Citizen Members of the WWFMMP Steering Committee** – Ten community representatives on the Steering Committee provided written comments, either individually, as a group, or on behalf of their community non-government organizations;
- **Members of the Public** – a total of thirteen written submissions were received, including seven from community organizations, four from individuals, and two from industry representatives. City staff also received a number of calls on the WWFMMP comment telephone line, generally requesting copies of the reports or making basic inquiries about the Master Plan;
- **Government Agencies** – written comments were provided by four agencies, including the Ontario Ministry of Environment, Environment Canada, the Toronto and Region Conservation Authority and the City’s Parks and Recreation Department. All except Environment Canada were represented on the WWFMMP Steering Committee.

The comments and inquiries ranged from requests for additional information or to be added to the Master Plan mailing list (generally to receive information about implementation plans and activities), to substantive comments on the Master Plan and implementation strategy.

Highlights of comments and responses are provided below for each of the three categories of review participants listed above.

2.1 Comments from Citizen Members of the WWFMMP Steering Committee

A detailed review of the ten sets of written comments from citizen members of the WWFMMP Steering Committee indicates that these members have a number of outstanding concerns and substantive comments regarding the Master Plan, individual study area results, and associated implementation plans and mechanisms.

Generally, the comments received fall into one of two main categories:

- Comments about the Master Plan or Study Area results; and
- Advice for implementation.

What follows is a representative sample of the comments raised and City staff responses. See Appendix C for more complete documentation of the issues raised and responses.

2.1.1 Comments About the Master Plan or Study Area Results

Goals, Objectives and Principles

- Comment:** The Master Plan is not adequate to meet Provincial Water Quality Objectives (PWQOs), even over the 100-year timeframe for the Plan. The public wants these goals met faster. —→ **City Response:** The Plan achieves PWQOs along the waterfront for most of the water quality parameters and achieves significant improvements for other water quality parameters. It also improves the quality of wet weather discharges into Lake Ontario.
- Comment:** The principle that wet weather flow should be managed where it falls is conspicuous by its absence in the report. —→ **City Response:** The benefits of source control measures were recognized from the outset of the Plan development process. There are over 60 source control measures proposed in the Plan.
- Advice:** Emphasize that a key feature of this Plan is that it is flexible and designed to respond to changing budgets and new innovative technologies. —→ **City Response:** This recommendation will be incorporated into the Stormwater Pollution Prevention Public Education and Outreach Strategy, prepared as part of the Master Plan process. Flexibility has been emphasized as a key feature of the WWFMMP from the beginning and is the main reason for developing the monitoring plan and for reviewing and updating the Plan every five years.
- Advice:** Continue to promote the Plan's objective of enabling swimming in our rivers and streams. —→ **City Response:** The City appreciates the stated goal and its urgency to various members of the public. This goal continues to be the long-term target for the Master Plan, and can be achieved by implementation of the long-term preferred strategy.

Dry Weather Measures

- Comment:** Dry weather measures have not been adequately assessed. The Master Plan does not recognize the significance of illegal cross-connections and other dry weather discharges and problems. For example, it did not rain in August 2002, but some beaches were posted 29 of 31 days. —→ **City Response:** Dry weather discharges were simulated in the computer models and the impacts of dry weather discharges were assessed in the analysis of the alternative strategies. Also, measures contained within the 25-year Implementation Plan consist of enhanced municipal operations and maintenance practices which include a dry weather discharge remediation program.

Modelling/Data Availability

Comment:

There is an over-reliance on modelling results, which are based on too many assumptions and a lack of actual data. The current Plan is missing too much real data (particularly in the CSO Area) to form a baseline for future monitoring or to satisfy the requirements of Phase II of any subsequent Environmental Assessments for projects in the CSO Area.

The use of 1991 as a base year for modelling is questioned.

Advice: Greater emphasis should be placed on collecting real, measured data as a basis for assessing the performance of stormwater measures during Master Plan implementation.

City Response: The modelling analysis was based on using typical parameter values in the model as an initial estimate, but was then followed by a rigorous model 'calibration and validation process' which involved adjusting the selected modelling parameters within ranges that were considered reasonable to achieve a reasonable level of agreement between model simulation values and the monitored field data. In fact, the model places greater reliance on real, measured data than the typical parameter values. Based on the rainfall analysis on 20 years of rainfall data (1976 - 1997) performed by XCG consulting Ltd., and documented in the Appendix C.2 of Humber River Watershed Report, 1991 was determined to be a representative rainfall year, and suitable as a base year for modelling purposes.

Environmental monitoring and reporting are integral parts of the WWFMMP process. The Monitoring Plan, developed as part of the WWFMMP and documented in Chapter 8 of the watershed reports, includes field monitoring to collect data to assess:

- Rainfall and snowfall;
- Water quantity and quality trend;
- Water quality benefits of wet weather management facilities;
- Water quality benefits in terms of reduced pollution export from sewersheds of different size, land-use type, soil conditions, etc.;
- Aquatic life trends at key stream locations.

Use of Emerging Technologies

Comment: Inadequate consideration was given to new technologies. Why have these been ignored or dismissed?

Advice: Use "French Drains" to deal with downspout disconnections for malls and condominiums.

Advice: Use emerging technologies to control algae growth.

City Response: A long list of technologies and management practices applicable to wet weather flow was compiled in the "Blue Book". Most of these are proven practices and as such the City has confidence in implementing them. Several are actually documented in the MOE Stormwater Management Planning and Design Manual, and as such can be thought of as standard practices. Others are quite innovative or are proven in some areas of biotechnology, but their application to the field of wet weather flow management is largely untested. Their potential application, and the potential of other new technologies, will be considered by the City in site-specific applications as the City implements the WWFMMP.

Source Controls

Comment: More emphasis is needed on source controls in all areas.

Advice: Strengthen or enhance source control strategies (soak-away pits, porous pavement; swales for industrial/commercial/institutional buildings and large lots at churches, schools, plazas, etc.) in all Study Areas.

Advice: Mandate 100% downspout disconnection within the first 15 years of Plan implementation. Recent municipal initiatives in Winnipeg regarding mosquito control and pesticides in Toronto suggest that a bylaw would withstand legal challenges.

City Response: The benefits of source control measures were recognized from the outset of the Plan development process. There are over 60 source control measures proposed in the Plan.

The voluntary level of downspout disconnection proposed for the residential sector is 40% over the next 25 years. This represents a significant increase over present conditions where only an estimated 10% to 15% of homes across the City have their downspouts disconnected. An enhanced level of 75% participation is proposed in areas of the City undergoing intensification. The expected participation rate has been a key decision point. This rate of uptake, particularly in the downtown core, is considered extremely ambitious and perhaps unrealistic given that roof downspout disconnection is not possible on all properties.

The rate of uptake and the corresponding improvements in sewer flow reductions from the source control program will be monitored and the success of these programs in achieving the Plan's targets will be reviewed and reported to Committee members on an annual basis as part of a proposed annual update report.

Linkages with Other Requirements/Processes

Comment: The Master Plan does not include or comprise a "Pollution Prevention Plan" under the Ministry of Environment's F-5-5 requirements.

City Response: In the Master Plan, the preferred strategy was developed to strive to meet PWQOs and to meet the requirements of Procedure F-5-5 for combined sewer overflows. The preferred strategy in the CSO Area meets all the requirements of Procedure F-5-5 for combined sewer overflows and accordingly removes sanitary sewage from outfalls discharging to the rivers and waterfront.

Comment: No amendments to the City's Sewer Use Bylaw have been proposed to promote compliance under the Master Plan.



City Response: The City's Sewer Use Bylaw already is in compliance with the WWFMMP as it prohibits the discharge or deposit of any material into the storm drainage system that may adversely impact the environment. Also, downspouts and foundation drains from new developments are prohibited from connecting to the storm sewers.

Disconnection of existing downspouts is not in the Sewer Use Bylaw as the strategy of the 25 year plan consists of voluntary disconnection program to achieve the target of 40% participation. An enhanced public education and community outreach program is being implemented as a means to achieve this level of participation.

The rate of uptake and the corresponding improvements in sewer flow reductions from the source control program will be monitored and the success of these programs in achieving the Plan's targets will be reviewed and reported to Committee members on an annual basis as part of a proposed annual update report.

Use of Natural Areas for Infiltration

Comment: Natural areas are not widely recommended in the Plan as receiving sites for stormwater.

For example, only two sites are recommended in the Humber Study Area.

Advice: The additional use of natural wetland/infiltration areas as receiving sites for stormwater is recommended. The Humber-based group, ARCH, has several additional recommended sites for the Humber Study Area. Natural wetland/infiltration areas should be recognized as a distinct category in the Plan, to be implemented in the 5-10 year timeframe.

City Response: The City will consider these techniques as end-of-pipe options and is open to any locations that ARCH suggests for demonstration projects. Natural wetlands generally have very limited ability to accept additional flow through them and remain effective. Constructed wetlands, sized to accommodate the flows and the desired level of treatment, are generally the preferred technique from the category of 'wetlands' in the Master Plan. In terms of natural wetlands such as the Humber River Marshes, the general thinking is to preclude additional stormwater flows from adjoining catchments from directly flowing into such wetland complexes.

End-of-Pipe Facilities

Comment: The Plan recommends multiple storage tanks/tunnels but there is a lack of performance data for these types of facilities. Published data shows that the Eastern Beaches tanks have not performed according to design specifications.

→ **City Response:** A performance report on the Eastern Beaches detention tanks is being prepared and an evaluation of the additional factors which contribute to the continued elevated frequency of beach closures in the Eastern Beaches is underway. The data during the past decade actually show a more complex trend than inferred by the comment. There is a significant variation in the long term trend starting from a beach posting rate of about 40 - 60 % in the late 1980's and declining to much lower degree of postings of about 10 % in the late 1990's but then followed by a rate of posting of about 20 % in the first part of the 2000 decade. One factor reported to Works Committee in May 2002 was the discovery of the break in the underwater pipe from the McLean Tank, which has been subsequently repaired in 2002; its effect will be established by monitoring over the next three years. One additional factor being evaluated, as a result of the waterfront modelling undertaken in the WWFMMP is to provide additional remediation of the stormwater pumped off-shore from the McLean Tank as the modelling analysis suggests that the off-shore discharge impinges on beach water quality.

Comment: The Plan does not indicate how the City will treat contents of the combined sewage storage tanks and tunnels. Will there be central or distributed treatment facilities? Without this information, how was the costing of the Plan arrived at?

→ **City Response:** The WWFMMP proposes four distributed treatment facilities to treat the contents of combined sewage storage tunnels/tanks. An EA will be necessary for these facilities at which time one or more of the facilities could be eliminated with the stored flow being directed to one of the other facilities. The cost for the preferred strategy includes the cost of the four proposed wet weather flow treatment facilities.

Comment: There is no mention of the implications of the increased amount of biosolids/sludge that will need to go from the combined sewage storage tanks/tunnels to the sewage treatment plan.

→ **City Response:** An evaluation of the volume and quality of solids will be a factor in determining type and location and role of wet weather flow treatment facilities. The commitment that the City has made is that such solids will not compromise the integrity of the biosolids project.

Public Consultation

Comment: The level of participation in the public consultation program has not been high. The process has not engaged the broader public.

→ **City Response:** The City used a combination of public consultation methods and devoted significant resources to the public consultation efforts to fulfill the requirements of the Master Planning process under the EA legislation. While a lot of effort was put forward by the public members of the Steering Committee, extensive effort and opportunities for the broader public to participate was provided through multiple avenues - workshops, public meetings, focus groups, e-consultation, formal review period, etc. The Public Consultation Summary Report documents the details of the various consultation activities, level of participation and results, which varied according to study area and phase of the planning process. The consultation program was very extensive and would meet if not exceed the consultation one would expect with a "full EA" as required by the Mediation Agreement for the Ashridges Bay (Main) Treatment Plant.

Comment: Consultation with the public has been adequate, but the CSO Area recommendation does not reflect the results of consultation with the Steering Committee and the public.

→ **City Response:** Comments from consultation participants and active dialogue amongst members of the Steering Committee made it clear that there was no clear agreement on separation of the remaining combined sewers in the CSO study area. Some believed strongly that complete road sewer separation is a vital component of any attempt to better manage stormwater in the City. Others were adamant that an opportunistic level of road sewer separation, (i.e. that which is necessary to eliminate basement flooding and that which is possible given soil conditions), is sufficient, and that the additional benefits of completing separation would be negligible while the costs would be high. Still others recognized the validity of both claims, and suggested that the option of completing road sewer separation in the CSO study area should undergo further analysis and discussion.

In recognition of the importance of this issue, two sewer separation strategies, one opportunistic and the other aggressive, were presented at the CSO workshop for public consideration. City staff also recommended that road sewer separation be reviewed and assessed in more detail at the next stage of the Class Environmental Assessment process. More specifically, staff recommended that, for end-of-pipe facilities proposed for combined sewer service areas adjacent to separated sewer service areas, the option of separating road

drainage from the combined sewer service area and routing it to the adjacent separated storm sewer area (in order to provide an equivalent level of treatment for this intercepted flow as would be provided by the originally proposed end-of-pipe facility) be reviewed and assessed in more detail.

Combined Sewer Overflow Study Area

Comment: The citizen members of the Steering Committee support a strategy that calls for 100% road sewer separation and 100% downspout disconnection in the CSO Study Area.

→ **City Response:** Concerns have been raised by the public that the preferred strategy (Strategy 5a) for the CSO Area does not include sewer separation (i.e. construction of new storm sewers to intercept road drainage) and that given the importance of source controls, their implementation should be accelerated, in particular roof downspout disconnection, to better meet the objectives of the Plan and reduce the size of end-of-pipe facilities, especially in the CSO Area.

The assessment and evaluation of Strategy 5a (opportunistic road sewer separation) and Strategy 5b (complete road sewer separation) showed that the environmental benefits in the long term were the same. However, in the short term, Strategy 5a provides more environmental benefits than Strategy 5b with less social impacts and significantly lower cost. Based on these findings, complete road sewer separation contained in Strategy 5b cannot be justified on a technical or economic basis.

Based on feedback from the public, Strategy 5a has been modified such that in the next phase (Phase 3) of the Class EA process, for each end-of-pipe facility proposed, the option of separating the road drainage from the combined sewer service area and routing it to the abutting separated storm sewer and providing an equivalent level of treatment to this intercepted flow as would be provided by the original end-of-pipe facility proposed will be reviewed and assessed in more detail. Consistent with the Class EA process, this analysis will require further review and input from the public, in particular the local community. Also, the time to achieve the target of 40% downspout disconnection within the combined sewer service area has been accelerated from 25 years to the first 10 years of the Plan implementation.

Humber Study Area

Comment: The proposed deflector arm should be deleted from the Plan and replaced with upstream improvement projects. The arm may degrade water quality west of the river mouth and jeopardize the Heritage River designation for the Humber.

→ **City Response:** It has been demonstrated that no matter what we do at source, conveyance and end-of-pipe, the degree of restoration of the hydrological cycle is insufficient to achieve beach water quality objectives. The concept of a “deflector arm” was evaluated and the computer simulation results demonstrate that it, in conjunction with all upstream measure contained in the plan, can significantly improve water quality along the Western Beaches and Marie Curtis Park Beach West. In the Humber River watershed, the Master Plan gives high priority to projects with the largest impacts on improving water quality in the Humber River. This includes eliminating sources of dry weather pollution. Achieving the Plan’s beach water quality improvement objectives within the 25-year implementation plan cannot be realized without these deflector arm structures.

This type of project is subject to review and analysis through the Class EA process. The EA will address all concerns that have been raised and further evaluate the justification for this project and consider and assess options for the configuration of the structure and opportunities to integrate it with recreational uses and the ecological function of Humber Bay (e.g. fishing pier and park features above water and fish habitat features below water). However, through a motion by Works Committee on September 4, 2003, the City is committed to “delaying the Class Environmental Assessment process for the Humber River and Etobicoke Creek Deflector Arms and instead, requesting that the Commissioner of Works and Emergency Services report on consultations with expert stakeholders and the community in these watersheds.”

2.1.2 Advice for Implementation

Pilot and Priority Projects

Advice: Criteria are needed to identify pilot and priority projects.

Advice: Projects with the “biggest bang for the buck” should be implemented first, especially those with low costs, use natural methods and are in partnership with non-government organizations.

Advice: Reallocate budget from end-of-pipe projects (e.g. deflector arm) to upstream improvement and source control projects.

City Response: The 25-Year Implementation Plan consists of a list of prioritized projects which is feasible and appropriate, given the City’s target spending level for Plan implementation and the need to build up the City’s capacity for implementing the various projects. Significant time will be needed in the first several years for the completion of the next phases of the Class EA process, preliminary design, detailed design and obtaining final agency approvals. This list of prioritized projects will provide the greatest return on investment in terms of environmental improvement while addressing human health and safety and infrastructure protection concerns.

Also, City Council, in approving the WWFMMP, adopted a motion requesting that the City work with knowledgeable Humber Watershed groups to pursue the inclusion of some low cost projects that utilize effective natural processes for the 2003-2007 implementation period.

City Response: The implementation of source controls, conveyance controls, stream restoration, public education, etc., has been given high priority in the 25-year implementation plan. Over \$400 million of funding has been allocated in the 25-year plan to: achieve the target uptake rate for Source Controls and conveyance controls; implement the enhanced Stormwater Pollution Prevention Public Education and Outreach Strategy; complete stream restoration in 15 years; implement an enhanced municipal operations and maintenance program for the elimination of pollutants at source; eliminate dry weather discharges; and to undertake an environmental monitoring program.

In the CSO Area, given the City’s legislative requirements in achieving the Ontario Ministry of the Environment’s prescribed levels of combined sewer overflow control, achieving the target uptake rate of 40% for downspout disconnection has been advanced as a first priority in the Plan implementation.

Collaboration with Upper Watershed Municipalities

Advice: There is an urgent need for joint action between the City of Toronto and “upper watershed” municipalities.

→ **City Response:** In developing the WWFMMP, the City of Toronto engaged upper watershed municipalities in two formal roundtable sessions to provide information on the Master Planning process and seek feedback and advice.

One of the strategies for cooperation and collaboration that emerged from the second roundtable was the creation of an Inter-regional Working Group. Both the City and the upper watershed municipal staff supported the establishment of an inter-regional group of stormwater management practitioners to: establish a common vision and goals for stormwater management at a regional/watershed level; promote and ensure collaboration and co-operation between the City of Toronto and upper watershed municipalities; share information and consider joint efforts such as pilot projects, modeling and spills response; develop bylaws to ensure water flowing out of one municipality is of a good quality when entering the next; and develop consistent messaging to communicate technical issues and best practices to the public and political decision-makers. The TRCA could assist with co-ordination and facilitation for the new group, which could also be linked to the Smart Growth Panel and the Remedial Action Plan.

Implementing Body

Advice: An implementing body, made up of watershed stakeholders, should be established to guide implementation, review and recommend pilot projects and monitor progress.

→ **City Response:** Implementation of the Plan is the responsibility of the City’s Works and Emergency Services Department. Certainly, it is recognized that residents, Non-Government Organizations (NGOs) and businesses are valuable assets to support the Plan implementation. There are plenty of opportunities for these knowledgeable communities to participate and assist by providing their knowledge for the specific watershed areas in the next phase (Phase 3) of the Class EA for individual projects that come forward to implement the Master Plan. The assistance of knowledgeable public members will also be sought through implementing the Public Education and Outreach Strategy.

Role of NGOs in Implementation

Advice: The Plan does not recognize the capabilities of non-government organizations. The capabilities of NGOs should be assessed for each watershed, and an enhanced role for these organizations identified.

→ **City Response:** It is recognized that residents, Non-Governmental Organizations (NGOs) and businesses are valuable assets to support the implementation of the WWFMMP. A Stormwater Pollution Prevention Public Education and Outreach Strategy, prepared as part of the Master Plan process, identified strengthening and enhancing community outreach efforts to residents and businesses as a key activity.

To this end, funding in the amount of \$250,000 per year has been approved for community-based projects which advance the wet weather flow management targets in the Master Plan. A City interdepartmental team will be formed (including the TRCA) to establish criteria and a process for the selection of candidate projects for funding and a report to Works Committee will be prepared on an annual basis documenting the projects funded and financial leveraging provided by other parties for these projects. The funding is to be administered by TRCA as they have a watershed based mandate and already work with many of the community-based groups that wish to promote activities in support of the Master Plan.

Financing

Comment: Generators of pollution should be required to fund pollution prevention at source. A cash-in-lieu policy is not acceptable.

→ **City Response:** The City's Finance Department is assessing various funding options including increasing water rates, levying property taxes, implementing user charges apportioned to the percent impervious area of an individual lot, development charges and grants/subsidies, etc., as potential sources of revenue to finance the Plan.

Further, in accordance with the Master Plan, all future development in the City is expected to provide on-site stormwater management controls consistent with measure required for the long term preferred strategy.

However, it is recognized that site conditions for certain types of development may preclude the feasibility of achieving all of the WWFMMP requirements. Under these circumstances cash-in-lieu may be an option to the extent the applicant is not able to achieve the level of control consistent with the WWFMMP. Cash-in-lieu funding collected would be used to implement projects contained within the WWFMMP for the corresponding watershed/waterfront drainage basin in which they are collected.

Stormwater Policy

Comment: The new policy is not developed enough to facilitate implementation. It lacks specifics, including enforceable criteria, proposed bylaws, a commitment to work with upstream municipalities, and specifics on building redevelopment processes.

→ **City Response:** The policy is a high-level document which has evolved after extensive consultation with the public and stakeholder groups, including the Provincial Ministry of the Environment. It is acknowledged that some parties advocated additional detail for the policy document. When compared to available examples such as the Water Management – Policies; Guidelines, Provincial Water Quality Objectives of the Ministry of Environment and Energy (July 1994), the City’s policy document is more detailed. When compared to the Scarborough Drainage Policy, which has considerable detail, it was determined that policy was too detailed, as it includes both policy statements, and detailed design guidelines.

It is the City’s intent to develop specific guidelines to support the policy over the next year, which will be largely technical in nature. In the interim, specific guidelines that have technical specifications in them from the former municipalities continue to be in force. In addition, Provincial Guidelines, such as the MOE [2002] manual of practice is in force and provides the parent document/guideline to the City’s policy.

2.2 Comments from Members of the Public

A review of the thirteen written submissions received by the City - seven from community organizations, four from individuals, and two from industry representatives – and records of telephone inquiries suggests that participants in the thirty-day review have general questions about the Master Plan, as well as advice for implementation.

Generally, the individuals and industry representations that provided comments raised questions about how the Master Plan would affect their properties or operations.

Community Organizations Submitting Written Comments

Humber Heritage Committee
 Safe Sewage Committee
 Council of Commodores
 Don Watershed Regeneration Council
 Etobicoke-Mimico Creek Watershed Coalition
 Humber Watershed Alliance
 Friends of the Don East

2.2.1 Advice from Community Organizations

Source Controls

Advice: There should be an increased emphasis on source controls in implementing the Master Plan.

→ **City Response:** The implementation of source controls, conveyance controls, stream restoration, public education, etc., has been given high priority in the 25-year implementation plan. Over \$400 million of funding has been allocated in the 25-year plan to: achieve the target uptake rate for Source Controls and conveyance controls; implement the enhanced Stormwater Pollution Prevention Public Education and Outreach Strategy; complete stream restoration in 15 years; implement an enhanced municipal operations and maintenance program for the elimination of pollutants at source; eliminate dry weather discharges; and to undertake an environmental monitoring program.

Collaboration with Upper Watershed Municipalities

Advice: There is a strong need for a policy framework to enable the City of Toronto to work with “905” municipalities on joint stormwater management projects and activities, with the Toronto Region and Conservation Authority playing a coordination role.

→ **City Response:** In developing the WWFMMP, the City of Toronto engaged upper watershed municipalities in two formal roundtable sessions to provide information on the Master Planning process and seek feedback and advice.

One of the strategies for cooperation and collaboration that emerged from the second roundtable was the creation of an Inter-regional Working Group. Both the City and the upper watershed municipal staff supported the establishment of an inter-regional group of stormwater management practitioners to: establish a common vision and goals for stormwater management at a regional/watershed level; promote and ensure collaboration and co-operation between the City of Toronto and upper watershed municipalities; share information and consider joint efforts such as pilot projects, modeling and spills response; develop bylaws to ensure water flowing out of one municipality is of a good quality when entering the next; and develop consistent messaging to communicate technical issues and best practices to the public and political decision-makers. The TRCA could assist with co-ordination and facilitation for the new group, which could also be linked to the Smart Growth Panel and the Remedial Action Plan.

Education and Outreach

Advice: Aggressively pursue education and outreach in the first 10-12 years of plan implementation. Increase funding for education and outreach to 5% of total spending.

→ **City Response:** An accompanying report to the Master Plan – the Stormwater Pollution Prevention Public Education and Outreach Strategy – provides a clear framework for implementing public education and outreach during Master Plan implementation. The Strategy clearly recognizes the importance of aggressive education and outreach in meeting the Master Plan objectives. \$30 million has been allocated for public education and outreach as part of Master Plan implementation over the next 25 years.

Advice: Establish a training program for contractors working on City projects (construction, landscaping, engineering).

→ **City Response:** This idea is worth considering.

Advice: Create an awards program for stormwater management.

→ **City Response:** This idea will be considered in implementing the Stormwater Pollution Prevention Education and Outreach Strategy.

Pilot and Priority Projects

Advice: Undertake pilot projects in partnership with the private sector, government agencies and NGOs to implement and monitor new technologies.

→ **City Response:** It is recognized that residents, Non-Governmental Organizations (NGOs) and businesses are valuable assets to support the implementation of the WWFMMP. The Stormwater Pollution Prevention Public Education and Outreach Strategy, prepared as part of the Master Plan process, identified strengthening and enhancing community outreach efforts to residents and businesses as a key activity. To this end, funding in the amount of \$250,000 per year has been approved for community-based projects which advance the wet weather flow management targets in the Master Plan. A City interdepartmental team will be formed (including the TRCA) to establish criteria and a process for the selection of candidate projects for funding and a report to Works Committee will be prepared on an annual basis documenting the projects funded and financial leveraging provided by other parties for these projects. The funding is to be administered by TRCA as they have a watershed based mandate and already work with many of the community-based groups that wish to promote activities in support of the Master Plan.

Advice: Implement trail upgrades and bridge construction in concert with wet weather flow projects.

→ **City Response:** The stream restoration work proposed in the Final reports of each of the technical Consultants needs additional detailed analysis prior to its implementation. The City has started a Geomorphic Systems Study for Highland Creek watershed in 2003, which will be used to prioritize areas for restoration and seek out additional stream areas of concern. Once the Highland Creek study is well advanced to sufficiently demonstrate that all factors for prioritizing projects are understood, it will create a template for carrying out similar studies on the other watersheds.

Advice: Suggested priority projects for Etobicoke/Mimico Creek: remove fish barriers in lower Mimico Creek; stream restoration; remove concrete channel under QEW; pilot project to construct pond at mouth of Bonar Creek; and re-evaluate need for berm in Etobicoke Creek.

→ **City Response:** The 25 Year Implementation Plan consists of a list of prioritised projects which is feasible and hence appropriate, given the target spending level for Plan implementation and the need to build up the City's capacity for implementing the various projects. Significant time will be needed in the first several years for the completion of the next phases of the Class Environmental Assessment process, preliminary design, detailed design and obtaining final agency approvals, etc. This list of prioritised projects will provide the greatest return on investment in terms of environmental improvement while addressing human health and safety and infrastructure protection concerns.

Financing

Advice: Pursue partnerships between the City and landowners that enable cost sharing for installation of new stormwater management technologies.

→ **City Response:** The City's Finance Department is assessing various funding options including increasing water rates, levying property taxes, implementing user charges apportioned to the percent impervious area of an individual lot, development charges and grants/subsidies, etc., as potential sources of revenue to finance the Plan.

Further, in accordance with the Master Plan, all future development in the City is expected to provide on-site stormwater management controls consistent with measures required for the long term Preferred Strategy.

Advice: Pursue provincial and federal funding to support Plan implementation.

→ **City Response:** The City will be seeking federal funding for such activities as monitoring and demonstration projects.

Advice: Ensure that budget line items are established and enshrined for channel naturalization, fish barriers, riparian restoration, and pond construction to ensure that these are not overshadowed by engineering projects.

→ **City Response:** The 25 year Implementation Plan has allocated separate budgets for stream restoration (channel naturalization, fish barrier removal and riparian restoration) as well as for end-of-pipe facilities such as ponds.

Links to Other Plans/Processes

Advice: Ensure that Master Plan implementation/spending benefits the Remedial Action Plan. Concern that the Plan does not meet RAP goal of “virtual elimination of untreated overflows from combined sewers”.

→ **City Response:** In the WWFMMP the preferred strategy was developed to strive to meet PWQO’s and to meet the requirements of Procedure F-5-5 for combined sewer overflows. The WWFMMP preferred strategy achieves PWQO’s for most of the water quality parameters and achieves significantly improvements for other water quality parameters.

The preferred strategy in the combined sewer area also meets all the requirements of Procedure F-5-5 for combined sewer overflows and accordingly removes sanitary sewage from outfalls discharging to the rivers and waterfront.

Comment: Plan is not in “compliance” with Mediator’s report. Plan 5c is more in line with Mediator’s Report, and should be fully evaluated.

→ **City Response:** All the requirements in Resolution 3 of the Mediator’s Report of the ABSTP Environmental Assessment have been adhered to in the Master Plan.

End-of-Pipe Facilities

Advice: Locate end-of-pipe facilities on tableland, either as open wetlands/ponds or sand filters under open space areas; tanks should only be used as a last resort.

→ **City Response:** In the WWFMMP all possible location suitable for the installation of wetland/ponds or sand filters under open space area were exhausted prior to identifying the need for tanks (i.e. tanks are being recommended as a last resort)

Advice: Ponds must be closely monitored to avoid mosquito breeding in the face of West Nile Virus.

→ **City Response:** In terms of stormwater management facilities such as ponds and wetlands, the available evidence indicates that when properly designed, they do not pose an excessive risk as areas of habitat for the mosquito species which carry the WNV. The factors include [i] open water where wind-driven water motions preclude the quiescent conditions typical of catchbasins, which are habitats favored by these mosquito species, [ii] inflows from storm-sewers which occur on average once every four days which upsets the mosquito hatching time of 10 days of quiescent conditions, and [iii] a much more balance food web in which such species as birds and fish consume mosquito larvae.

Advice: Install and “dead-end” road sewers if there is a reasonable expectation that receiving infrastructure might be put in place in the future.

→ **City Response:** At the master planning level, where the strategies are developed on a watershed basis, the assessment and evaluation of Strategy 5a (opportunistic road sewer separation) and Strategy 5b (complete road sewer separation) showed that the environmental benefits in the long term were the same. However, in the short term, Strategy 5a provides more environmental benefits than Strategy 5b with less social impacts and significantly lower cost. Based on these findings, complete road sewer separation contained in Strategy 5b cannot be justified on a technical or economic basis.

Nevertheless, Strategy 5a was modified whereby at the next phase (Phase 3) of the Class Environmental Assessment Process for end-of-pipe facilities proposed for combined sewer service areas which abut separated sewer service areas, the option of separating the road drainage from the combined sewer service area and routing it to the abutting separated storm sewer and providing an equivalent level of treatment to this intercepted flow as would be provided by the original end-of-pipe facility proposed, be reviewed and assessed in more detail. In addition, Works Committee on September 4, 2003, expanded Strategy 5a to consider sewer separation during regular maintenance and repair work in the CSO area.

Advice: Delete the proposed deflector arm in the Humber watershed.



City Response: It has been demonstrated that no matter what we do at source, conveyance and end-of-pipe, the degree of restoration of the hydrological cycle is insufficient to achieve beach water quality objectives. The concept of a “deflector arm” was evaluated and the computer simulation results demonstrate that it, in conjunction with all upstream measure contained in the plan, can significantly improve water quality along the Western Beaches and Marie Curtis Park Beach West. In the Humber River watershed, the Master Plan gives high priority to projects with the largest impacts on improving water quality in the Humber River, this includes eliminating sources of dry weather pollution. Achieving the Plan’s beach water quality improvement objectives within the 25-year implementation plan cannot be realized without these structures.

This type of project is subject to review and analysis through the Class EA process which will address all concerns that have been raised and further evaluate the justification for this project and consider and assess options for the configuration of the structure and opportunities to integrate it with recreational uses and the ecological function of Humber Bay (e.g. fishing pier and park features above water and fish habitat features below water). However, through a motion by Works Committee on September 4, 2003, the City is committed to “delaying the Class Environmental Assessment process for the Humber River and Etobicoke Creek Deflector Arms and instead, requesting that the commissioner of Works and Emergency Services report back to the Works Committee by April 2004 on consultations with expert stakeholders and the community in these watersheds.”

2.3 Comments from Government Agencies

Written comments were provided by four government agencies, including the Ontario Ministry of Environment, Environment Canada, the Toronto and Region Conservation Authority and the City’s Parks and Recreation Department. All except Environment Canada were represented on the WWFMMP Steering Committee.

In addition, meetings were held between City staff and representatives of the Ontario Ministry of Natural Resources and the federal Department of Fisheries and Oceans to determine if these agencies had concerns regarding the Master Plan – no significant concerns were identified.

Highlights of the agency comments are provided below. For more detailed comments and City responses, please refer to Section 2.1 or Appendix C.

Ontario Ministry of the Environment

Comment: Projects should avoid piecemealing; e.g. if any schedule B or C Municipal Engineers Class Environmental Assessment projects are interdependent they should come forward together under a more stringent Schedule C process to ensure a more comprehensive and thorough examination of issues. Projects involving several components coming forward together should be accompanied by a rationale for why the project is being considered as being interdependent.

Comment: Projects should make ecological sense and avoid duplication of efforts (e.g., be on a subwatershed basis, catchment basis.).

Comment: Undertakings where several components are present should be documented carefully on a component basis so that if a larger undertaking is subject to a Part II order request, components can be easily separated, if necessary, for the purposes of an MOE technical review.

Comment: If undertakings intend to rely, fully or in part, on information contained in the modelling, watershed descriptions or other WWFMMP supporting documentation, there should be clear direction and linkage in project document to relevant parts of the WWFMMP.

City Response: As the City moves forward to implement individual projects under the Municipal Engineers Class Environmental Assessment Process, the City will need:

MOE assistance in developing a transparent process and in defining the concise documentation necessary which summarizes the WWFMMP decisions, and other EA and planning related decisions which have guided a proposed design for an individual facility, when approval and a Certificate of Approval is sought from MOE Environmental Assessment and Approvals Branch.

A method for streamlining additional EA requirements to co-ordinate and where possible conduct the same EA study to address simultaneously both the requirements of the Municipal Engineer's Class Environmental Assessment process with the federal process (CEAA), where CEAA requirements are triggered.

In addition, the City will be undertaking monitoring activities and/or building demonstration projects to advance implementation of the Plan, for which early meetings to co-ordinate all EA related activities are in order. It should be noted that the MOE Monitoring and Reporting Branch is assisting on the monitoring requirements of the Plan.

Environment Canada

Comment: Accelerate implementation of the Master Plan's implementation.

→ **City Response:** One overarching point that has been expressed by specific public members has been to advance the rate of implementation of the Plan. This includes, for example, accelerating Plan implementation to have all waterfront beaches meet beach water quality objectives within the first 10 - 15 years of the Plan. While respecting the hierarchy of controls and the measures that can be implemented with the target level of financing (through municipal financing and measures that will be implemented on private property), the proposed plan has attempted to develop a balance among the competing priorities.

Comment: Continually review and enhance the public education program.

→ **City Response:** The City has recognized that public education and involvement is critical; our efforts will focus on specific efforts within the Toronto area, but we also recognize that wider-scale efforts that can be led and facilitated by agencies such as Environment Canada. The success of public education will be regularly reviewed.

Comment: In implementing projects under the Master Plan, be aware that the *Species at Risk Act* prohibits projects that may impact "animal species at risk", their "residences" and their "critical habitat".

→ **City Response:** With respect to species at risk especially in areas of shoreline management, stream restoration, the City urgently needs maps and information identifying specific 'local' areas of interest and look forward to working with EC in obtaining this information, as you progress through the coming year.

Comment: For end-of-pipe controls, the City's monitoring program should include water and sediment quality testing to determine if guidelines for potential contaminant uptake by wildlife are being exceeded.

→ **City Response:** In terms of monitoring in general, the City has initiated a co-ordinated surface water monitoring program for the WWFMMP with MOE, TRCA, and EC as outlined in the "Waterfront Response" report component of the WWFMMP. This monitoring study design does address the water quality and sediment quality issues with respect to contaminant uptake into wildlife, outlined in your letter. However, our research indicates that a specific study design is needed to address some of these issues, a study design, which we respectfully submit, should be led by scientists from NWRI because facilities from a broad spectrum of municipalities and ecological pathways need to be included in the study design.

Comment: Environment Canada supports streamlining the respective environmental assessment processes (federal, provincial, municipal) for purposes of the Master Plan.

→ **City Response:** In terms of CEAA and related approvals, the next step in implementation is to group projects to complete their related Environmental Assessments. For example, major groupings of projects include: [i] waterfront projects designed to control CSO's and improve waterfront water quality, [ii] end-of-pipe facilities in different watersheds, and [iii] stream restoration projects designed to protect sub-surface infrastructure and to restore the aquatic (stream) ecosystems. Projects in the first category will have EA's for each project, while EA's for the latter two categories will group several site locations together into a "single undertaking", for EA purposes. Since many of these projects will affect habitat or navigable waters and since we will be seeking federal funding for such activities as monitoring and/or building demonstration projects, early meetings to co-ordinate all EA related activities are in order.

Toronto and Region Conservation Authority

Comment: Advocate that the Province develop improved stormwater management guidelines including areas such as rates of discharge for erosion protection and erosion and sediment control during the construction phase.

→ **City Response:** We agree that the 'Preferred Strategy' of the WWFMMP moves beyond the current MOE BMP manual for stormwater quality management. The City will work with our partners to develop new guidance as appropriate. The City will advocate that the province take the lead in developing this guidance, but the City notes that many elements of the guidance is contained in such WWFMMP reports as the 'Blue Book'.

Some of these elements will be included in the City's new, Technical and Management Guidelines, which are under development. This will include consideration of surficial soil erosion and sediment control for construction sites.

Comment: Integrate modelling and evaluation of upstream stormwater management measures into further investigations regarding the potential benefits of the proposed deflector arms.

→ **City Response:** The idea to delay of the consideration of the deflector arms is premised on the hypothesis that additional measures in rural and urban communities in the 905 area will result in achieving beach water quality objectives at the Toronto waterfront. Related concerns and hypotheses have been advanced by some of the TRCA watershed groups. We propose to use the Environmental Assessment Process to address these hypotheses.

Comment: Clarify the rationale for the extent of proposed restoration works, define restoration levels (e.g. limited, moderate, significant, enhanced) as they apply to each proposed site, and conduct detailed field assessments prior to proceeding with full scale planning for implementation of all proposed stream restoration works.

→ **City Response:** In consultation with TRCA staff, the City has started a Geomorphic Systems Study for the Highland Creek watershed to address issues associated with Trunk sanitary sewers. The City will extend this study to establish a plan of projects for managing the fluvial geomorphology of the Highland Creek and defining, in detail, stream restoration projects in the Master Plan. This approach is essential to develop further priorities and for identifying the appropriate approach for specific stream reaches within the different valley segments according to Seelbach's classification system.
A similar methodology will be applied to the other watersheds, once the template is developed and tested on the Highland watershed.

Comment: Locate ponds, if possible, outside the 100 year flood line, or at a minimum outside the 25 year flood line, while continuing to have consideration for other factors such as natural heritage features, public use needs and safety issues (as per TRCA's Valley and Stream Corridor Program policies); b) construct these ponds by excavation only; and c) carefully assess the cumulative hydraulic impact of all proposed ponds in valleys.

→ **City Response:** The City understands concerns with the influence that new EOP facilities may have on depths of flood - flow and whether or not such elements of facilities may act as hydraulic constriction points in the regulatory flood plain.

As TRCA indicates in their comments, these issues must be addressed as a local site specific issue; the City plans in including such issues in the Class EA and preliminary design portions of a site specific facility, as well as at detailed design stages. The updating of hydraulic models for flood events and in support of flood plain mapping will assist the City in these site specific evaluations.

Comment: Develop user-friendly implementation guidelines to support the stormwater policy that was developed as part of this plan.

→ **City Response:** The development of guidelines is underway.

Comment: Continue to promote studies evaluating innovative stormwater best management practices (BMPs) and other stormwater management issues. TRCA will continue to develop a proposal for a water managers forum through which this work can be coordinated with similar efforts by 905 municipalities. We would hope that the City would also join the TRCA in continuing to support the Stormwater Assessment Monitoring and Performance (SWAMP) Program.

→ **City Response:** The City will work with TRCA to promote innovation. Through the construction of several new facilities including the WBT, the Dunkers, and exfiltration/infiltration conveyance systems, the City will be carrying out monitoring studies to field measure the effectiveness of such facilities.

The City looks forward to working with TRCA and the 905 municipalities to promote innovation, and more importantly, the City notes the importance of promoting and co-ordinating the implementation of practices consistent with those that the WWFMMP.

Comment: Continue to recognize TRCA as an important partner and make use of existing resources and programs, such as the Regional Watershed Monitoring Network, education, outreach, stewardship and regeneration programs.

→ **City Response:** The City recognizes TRCA as a fundamental partner to successfully implement the WWFMMP. The importance, for example for such areas as 'outreach', has been recognized by the City's request to Council through the City Works Committee requesting funding of \$250,000 to TRCA to take the lead in managing and funding certain 'outreach' activities.

Comment: We recommend that a new summary document, like the one prepared for Council in October 2002, be prepared that summarizes the new policy directions, shows prioritization of proposed works in tables and provides the strategic maps required for quick reference. The document should address current inconsistencies between the five study areas by, for example, ensuring the same degree of information is available in the budget sheets and figures.

→ **City Response:** An updated summary document was prepared as part of the documentation prepared for the 30 day review period. In addition, a more detailed overview is included in the Waterfront Report. It is the City's intent to update these documents, as appropriate, for the annual update, and the 5 year update. The results from the Environmental Monitoring Plan will be used to update the WWFMMP in detail.

Comment: The TRCA → **City Response:** Thank You

commends the City for developing a comprehensive and innovative stormwater management plan approach that considers a treatment train approach, emphasizing source control measures first, followed by conveyance and end-of-pipe controls; considers a wide range of both traditional and new stormwater management practices and; evaluates scenarios based on a broad scope of objectives relating to social, economic and environmental considerations. We support the City in focusing the study in Toronto and are committed to advocating extension of this work in the "905" area through our watershed management programs. We strongly encourage the City to proceed with implementation of the plan.

City of Toronto Parks and Recreation Department

Comment: The Master Plan → **City Response:** Identified facilities are based on opportunities afforded in both existing areas and in areas of intensification. Additional opportunities may be identified during redevelopment. There may be further opportunities or requirements to provide additional facilities when considering development applications. During that process additional facilities may be further defined in the Management and Technical Guidelines.

Comment: There needs to be increased consistency around where end-of-pipe facilities will be located in each study area, as well as the criteria that were used to recommend proposed locations.



City Response: In consultation with TRCA staff, the City has started a Geomorphic Systems Study for the Highland Creek watershed to address issues associated with Trunk sanitary sewers. The City will extend this study to establish a plan of projects for managing the fluvial geomorphology of the Highland Creek and defining, in detail, stream restoration projects in the Master Plan. This approach is essential to develop further priorities and for identifying the appropriate approach for specific stream reaches within the different valley segments according to Seelbach's classification system.

A similar methodology will be applied to the other watersheds, once the template is developed and tested on the Highland watershed.

In the WWFMMP all possible location suitable for the installation of wetland/ponds or sand filters under open space area were exhausted prior to identifying the need for tanks (i.e. tanks are being recommended as a last resort)

Comment: General concern about the potential loss of parkland due to new end-of-pipe facilities; criteria used to identify potential locations for facilities focus on existing uses and not potential future uses (e.g. new parks).



City Response: We acknowledge that future park use and intensified use of parks must be considered for each proposed project. We believe that on occasion, green end of pipe facilities may provide an opportunity for additional walking trails, landscaping etc which would assist in meeting future needs. In some instances, such as Terraview/Willowfield, recreation use [soccer fields] led to installation of a below ground filtration technology, rather than above ground facility so new parks facilities and new stormwater facilities are created for a win-win situation.

Comment: Approvals in parks and other greenspaces should follow a higher level of EA process.



City Response: The EOP facilities will be considered as Schedule B facilities for EA purposes, but careful consideration will be given to the number of public and City department contact points in consultation efforts. We take that comment as directed to the degree of consultation and contact and recognize that the number of contacts needed in a Schedule B undertaking are a minimum, not a maximum.

3.0 NEXT STEPS

Comments and staff responses from the 30-day review period were considered and incorporated in the final Master Plan that was presented to Toronto City Council in late September 2003. The Master Plan and supporting financial mechanisms received final endorsement from City Council during its meeting held from September 22-25, 2003.

As requested by citizen members of the Steering Committee, this Summary Report – containing a detailed record of the comments received during the thirty-day review period and staff responses – will be circulated to the full Steering Committee, and made available to anyone who participated in the review process.

City of Toronto staff are now beginning work on the early stages of WWFMMP implementation, including detailed budget development, requests for proposals, and the public education and outreach component of the Master Plan.