

# **Mediator's Report**

## **City of Toronto Environmental Assessment**

### **Main Treatment Plant (MTP)**

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## **Mediator's Report City of Toronto Environmental Assessment Main Treatment Plant (MTP)**

### **Executive Summary**

The former municipality of Metropolitan Toronto submitted the Main Treatment Plant Environmental Assessment (MTP EA) to the Minister of the Environment for approval under the Environmental Assessment Act (EAA) in December 1997. The new City of Toronto assumed responsibility for it on January 1, 1998. The purpose of the MTP EA is to establish a plan to meet future wastewater needs in the MTP service area to the year 2011 and to improve the effectiveness of the MTP at reducing environmental impacts. Nine groups or individuals made submissions to the Minister requesting a hearing and/or mediation to address outstanding issues of concern. In 1998, the City invited the submitters to participate in a mediation with an independent mediator to attempt to resolve issues. All submitters who had outstanding concerns agreed to participate. Three additional individuals also participated.

Twenty-four all day mediation sessions were held between December 16, 1998 and April 1, 1999 with representatives of the City and the other participants. During that time, presentations were made to the mediation participants by various City staff, MOE staff and TRCA staff and consultants, on technical aspects of the MTP, associated infrastructure and processes, the EA process and near shore water quality issues. The intensity of the schedule and the workload on all participants was very demanding. All participants worked hard, in good faith, to resolve issues.

Except for two individuals, the participants, including the representatives of the City, reached a comprehensive Mediation Agreement settling most of the issues that had been outstanding at the beginning of the process. Issues that were addressed and resolved by agreed amendments to the Environmental Assessment or by agreed Conditions of Approval include:

- i) Guiding Principles for the implementation of the EA Approval;

- ii) The implementation of ultraviolet disinfection of MTP effluent;
- iii) The discontinuation of chlorination of MTP effluent;
- iv) Triggers for the potential implementation of tertiary treatment;
- v) Implementation details for a new Sewer Use Bylaw;
- vi) A revised Wet Weather Flow Master Plan study process;
- vii) A process to finalize and review the Water Efficiency Plan;
- viii) Implementation details for the beneficial use of Biosolids;
- ix) Implementation details for the termination of incineration;
- x) A Master Plan study process for all solids generated in the water and wastewater systems;
- xi) Plant optimization and economic issues;
- xii) Plant capacity issues;
- xiii) Good Neighbour Issues, including: noise, odour, air emissions, truck traffic, visual impacts and the storage of chemicals on site;
- xiv) The preparation of a landscape architecture Site Plan for the MTP Site;
- xv) Near shore water quality issues, including Coatsworth Cut;
- xvi) A study and approval process for the proposed new outfall pipe;
- xvii) A revised implementation plan and five year review process;
- xviii) A master timeline for the implementation plan;
- xix) Terms of Reference for the MTP Neighbourhood Liaison Committee; and
- xx) An Implementation and Compliance Monitoring Committee (ICMC);

The unresolved issues among the signatories to the Mediation Agreement are:

- i) a request, supported by all participants, other than the City representatives, for a comprehensive public health study of residents who live in the vicinity of the MTP;
- ii) a request, supported by all participants, other than the City representatives, for a comprehensive study of the potential role of the private sector in the ownership or management of all or parts of the wastewater treatment system in the City; and
- iii) a request, supported by all participants, other than the City representatives, for participant funding from the City to compensate them for the time and expertise that they contributed to this process. This request has not been refused by the City, but remains outstanding as of the date of this Report.

In addition to these specific unresolved issues, two participants did not execute the Mediation Agreement. One individual participant felt that none of her issues was addressed satisfactorily by the Agreement. The other individual, representing the Lakeside Area Neighbourhoods Association (LANA), although supportive of both the mediation process and the substance of the Mediation Agreement, concluded that she could not execute the Agreement because the unresolved issue relating to the request for a public health study was so central to her organization's primary interest of community health that they could not support the approval of this Environmental Assessment in the absence of such a study.

The Mediation Agreement, contained in this Mediator's Report, sets out the details of the amendments and the conditions of approval that, subject to a ratification process, the signatories have agreed to request the Minister of the Environment to make as his decision in this matter. Since a number of the participants to this mediation, including City Staff, participated in a representative capacity, their agreement is subject to ratification by their group or organization and by City Council before it can be considered final. Once the ratification process has been completed, the mediator will file confirmation of such with the Minister.

Those participants who wish to do so remain free to request the Minister, outside the context of this Mediator's Report, to make such other decision as is within his jurisdiction regarding any unresolved issues.

## **1.0 Introduction**

The Main Treatment Plant Environmental Assessment was commenced in 1989 by the former Municipality of Metropolitan Toronto as a Class EA. In 1991, the municipality decided to continue its preparation as an individual EA. The environmental assessment document was completed in November 1997 and submitted to the Minister of the Environment for approval under the Environmental Assessment Act in December 1997. On January 1, 1999, the new City of Toronto came into effect and assumed responsibility for the completion of the environmental assessment process.

Members of the public were given until March 31, 1998 to make submissions to the Minister. Nine groups or individuals made submissions. The City was requested by Ministry staff to provide responses to those submissions, prior to the completion of the government review. The City, with the assistance of its technical consultant (CH2M Gore & Storrie Limited), prepared draft responses which were circulated to the submitters in July, 1998. During the preparation of those draft responses, the City decided to propose to the submitters that they participate in a voluntary process of mediation to attempt to resolve their differences, prior to the City finalizing its responses to their submissions.

On October 27, 1998 the City sent letters to each of the nine groups and individuals inviting them to participate in a mediation process with a third party mediator. Participants were invited to help design the process and participate in the identification of potential candidates and the selection of the mediator. Draft Terms of Reference were proposed by the City to guide the mediation process. Six of the groups or individuals agreed to participate. Two of the individuals declined as they were apparently satisfied with the draft responses and one of the groups (the Medical Officer of Health for the former City of Toronto) was incorporated into the new City by the amalgamation. Three additional individuals also participated.

## **2.0 The Mediation Process**

I was interviewed by the participants in November 1998 and retained by the City as the mediator in December 1998. I was specifically instructed by the City to conduct the mediation as an independent third party mediator. A preliminary orientation session was held with all participants on December 16, 1998. That meeting served as an opportunity to introduce the concerns of the various participants, to introduce the concept of mediation, to explain the role of a mediator, to outline the ground rules for the process, to distribute a draft mediation agreement and to establish a schedule of meetings to address substantive issues. The participants were specifically advised, orally and in writing, that I could not and would not provide legal advice to any of the participants, including the City and that if they felt the need for independent legal advice, they would have to seek it elsewhere.

Meetings were held two or three days per week, throughout January, February and the first two weeks of March, 1999. A final meeting was held on April 1, 1999 to allow the participants to provide comments on a draft of this Report. The meeting schedule was intensive and demanding of all participants. Most were able to make themselves available to participate in virtually all of the sessions, while a couple of others were able to attend only some of the sessions, because of other commitments. In total, twenty-four full day meetings, many extending into the evening, were held. All meetings were on weekdays, with the exception of one Saturday morning meeting.

All discussions were agreed to be confidential and without prejudice to positions that any participant, including the City, may wish to take later, in the event that an agreement could not be reached. Detailed minutes were kept of every meeting, to assist the participants and the mediator to record points of discussion, agreement and disagreement. It was agreed that those minutes would remain confidential.

During the mediation process, numerous documents were circulated and discussed by the participants. Although many of them were not incorporated into the Mediation Agreement, it was agreed that a copy of them should be submitted to the Minister with the Mediator's Report and that the City should keep a copy of them as part of the record of this process. It was agreed that the City will maintain a copy of these documents and that a copy will be

provided to the Minister by the City once this Report has been submitted. These documents are supplementary to this Mediator's Report, but do not form part of it. A copy of this binder of documents will be kept on file by the City of Toronto, Works and Emergency Services, Public Consultation Coordinator.

In addition to this documentary information, the participants also had the benefit of numerous oral presentations from various City staff, MOE staff and TRCA staff and consultants, on technical aspects of the MTP, its associated infrastructure and processes, the EA process and water quality and sedimentation issues in the vicinity of the MTP. A full listing of the individuals who made oral presentations to the participants is included at the end of this section.

It was agreed that the outcome of the mediation would be a Mediator's Report, documenting the issues that were successfully resolved and the issues that were discussed but not resolved. A draft Mediator's Report was distributed to each participant about the middle of March 1999 for their review. A final mediation session was held on April 1, 1999 to address comments on the draft Report. A second draft report was circulated to the participants on April 8, 1999. Final revisions were made following the receipt of comments and the Mediation Agreement was formally executed by the participants on April 16, 1999.

Since the City representatives in the mediation did not have complete authority to bind City Council to an agreement, and since this was also true for other representatives of groups in the mediation process, it was agreed that the Mediator's Report would be based upon the agreement of the individual representatives involved, subject to later ratification. All individuals who participated indicated that they were the appropriate representatives to make such recommendations to the body that would have to ratify the agreement and that, if they reached agreement, they would recommend it for ratification in the strongest terms. All participants agreed to proceed with the mediation on this basis.

**MTP EA Mediation Process  
Presentation List  
1999**

<b>Meeting No.</b>	<b>Date</b>	<b>Topic</b>	<b>Presenter</b>
#3	January 8	Ultra Violet Disinfection	Mark Rupke, Senior Engineer, Water Pollution Control, City of Toronto
#5	January 14	Outfall	Mark Rupke, Senior Engineer, Water Pollution Control, City of Toronto
#5	January 14	Tertiary Treatment	Mark Rupke, Senior Engineer, Water Pollution Control, City of Toronto
#8	January 28	Background on Wet Weather Flow Master Plan	Lawson Oates, Manager, Operational Planning, Solid Waste Management Services, City of Toronto
#10	January 29	Humber Treatment Plant	Bob Pickett, , Director, Water Pollution Control, City of Toronto
#12	February 5	Water Efficiency Plan	Roman Kaszczyj, Engineer, Water Efficiency, City of Toronto
#12	February 5	CSO Outfalls and Coatsworth Cut	Wayne Green, Director, Quality Control and Systems Planning, City of Toronto
#17	February 18	Solids Train Management Program	Mark Rupke, Senior Engineer, Water Pollution Control, City of Toronto
#17	February 18	Master planning under the Class EA process	Michael Harrison, Ministry of Environment EA and Approvals Branch
#18	February 22	Source Control and the Wet Weather Flow Master Plan	Michael D'Andrea, City of Toronto, Manager Asset Infrastructure Management
#20	March 1	Coatsworth Cut and TRCA Coastal Engineering Study	Larry Field, TRCA Nigel Cowey, TRCA Dr. Robert Nairn, Baird & Associates Fiona Itamunoala, Baird & Associates
#21	March 4	Extending the MTP EA Planning Horizon to 2021	Stephen Whyte, Community Planner and member of the public



### 3.0 Overview of the Mediation Agreement

The Environmental Assessment, as submitted for approval, contains the following paragraph, descriptive of its approach:

*"The MTP EA is unique in terms of environmental assessments because it does not strictly identify a specific project to be approved and constructed at the completion of the process. Through the EA process, an overall plan or direction for meeting future wastewater treatment needs and improving the effectiveness of the MTP, referred to as the preferred alternative or undertaking, is established."*  
(MTP EA, page 1-5).

This approach has also defined the nature of the Mediation Agreement. With some relatively minor exceptions, rather than addressing the details of a proposed "construction project" type of undertaking, the Mediation Agreement addresses the details of the planning processes that will implement the "overall plan or direction" that is established by this Environmental Assessment.

The resolutions developed through the mediation process therefore include a large number of commitments made by the City to commence or to continue various planning processes and considerable detail about the ways in which those processes will be conducted. This approach to the resolution of the issues in this case was necessary, since many of the participants feel strongly that these subsequent planning processes will determine fundamental issues that are an integral part of the planning for the future of the MTP.

For many participants, the Environmental Assessment Act, and particularly an individual EA conducted under that legislation, represents important procedural and substantive safeguards or guarantees as to how planning for future infrastructure decisions should be conducted. While many of the participants have been frustrated by the length of time the current EA process has taken and by the "unique" approach of this final EA document, they have valued the requirements of the legislation. In particular, participants have valued the requirement that the City consider the advantages and disadvantages of reasonable alternatives, the broad definition of the environment and the opportunity that the Act has provided to have

input into the planning process. They believe that the potential for a hearing at the end of the EA process has provided an important incentive for City staff, consultants and Council to consider all reasonable perspectives carefully.

Unless these participants could feel confident that future planning processes that would determine these fundamental issues would include a full and fair evaluation of alternatives and would provide them and other interested stakeholders with a meaningful voice, they would not have been willing to agree to defer these fundamental decisions to these future planning processes. Instead, I believe that they would have maintained their positions that this EA was inadequate to the extent that it had not determined these issues as part of this planning process.

For these reasons, there is considerable detail contained in the Resolutions regarding such things as: guiding principles for future processes; structure and membership of steering committees, review committees and liaison committees; specific directions to be given in the terms of reference for the planning processes; assurances that alternatives would be fully and fairly evaluated and not biased toward previously conceived solutions; and detailed requirements for public consultation. For the same reasons, there is a strong emphasis in the Resolutions on the establishment, maintenance and mandate of a committee, to include the signatories of this Mediation Agreement, to monitor the implementation of this EA Approval, including compliance with all conditions and provisions of the Mediation Agreement.

Of particular concern to some of the participants has been whether the City will comply with its obligations under this Agreement, particularly regarding the creation and maintenance of committees that provide opportunities for the public to participate in the decision making processes envisioned in this Agreement. The City representatives have repeatedly assured the participants that the City will not be able to avoid these commitments and that committees as contemplated by this Agreement will be established and maintained by the City. To address this concern, the Mediation Agreement has been structured so that all committees and other obligations of the City will be authorized by City Council upon the ratification of this Agreement, without any need for further Council authorization. Thereafter, the various committees, study processes and any other steps will be implemented by the appropriate staff as soon as possible.

The proposed conditions of approval emphasize the importance of the City complying with its commitments by requiring the City to file annual reports with the Ministry of the Environment documenting its compliance, any non-compliance that has occurred and the steps taken by the City to remedy any such non-compliance.

The City's willingness to agree to these detailed procedural and substantive provisions which will govern the way in which these future planning processes will be conducted is a measure of the City's good faith and its sensitivity to the concerns that were expressed in this mediation. These commitments on the part of the City, and the willingness of the other participants to accept them, has made the resolution of these issues possible.

Issues that were addressed and resolved by agreed amendments to the Environmental Assessment or by agreed Conditions of Approval include:

- i) Guiding Principles for the implementation of the EA Approval;
- ii) The implementation of ultraviolet disinfection of MTP effluent;
- iii) The discontinuation of chlorination of MTP effluent;
- iv) Triggers for the potential implementation of tertiary treatment;
- v) Implementation details for a new Sewer Use Bylaw;
- vi) A revised Wet Weather Flow Master Plan study process;
- vii) A process to finalize and review the Water Efficiency Plan;
- viii) Implementation details for the beneficial use of Biosolids;
- ix) Implementation details for the termination of incineration;
- x) A Master Plan study process for all solids generated in the water and wastewater systems;
- xi) Plant optimization and economic issues;
- xii) Plant capacity issues;
- xiii) Good Neighbour Issues, including: noise, odour, air emissions, truck traffic, visual impacts and the storage of chemicals on site;
- xiv) The preparation of a landscape architecture Site Plan for the MTP Site;
- xv) Near shore water quality issues, including Coatsworth Cut;
- xvi) A study and approval process for the proposed new outfall pipe;
- xvii) A revised implementation plan and five year review process;
- xviii) A master timeline for the implementation plan;
- xix) Terms of Reference for the MTP Neighbourhood Liaison Committee; and
- xx) An Implementation and Compliance Monitoring Committee (ICMC).

During the course of the mediation process the participants developed a series of resolutions on individual topics or related topics. Specific issues of concern were addressed within the topic area that most closely suited the particular issue. Eleven different resolutions were developed. In summary, they address the following topics:

#### Resolution #1: Guiding Principles

This Resolution establishes guiding principles that are to apply to all initiatives that implement any of the matters dealt with in this EA Approval, including the Mediation Agreement.

#### Resolution #2: Source Control Issues

This resolution addresses three related topics: a new Sewer Use Bylaw; a Water Efficiency Plan; and a Wet Weather Flow Master Plan. These topics are related by the fact that they are all initiatives that can play an important part in controlling the quality and quantity of the effluent that arrives at the MTP. All three processes have commenced but have not yet been completed. The results of these processes will be important determinants in the implementation of the "overall plan or direction" established in this EA. The resolution establishes: goals and objectives; steering committee terms of reference; public consultation requirements; process and substantive guidance; and schedules for these initiatives. Once these initiatives have been completed and adopted by City Council, the responsibility for monitoring the implementation of those plans insofar as they may affect the MTP will become part of the mandate of the ICMC.

#### Resolution #3: Main Treatment Plant Capacity

This resolution sets out the parameters that define the capacity of the MTP and provides that no expansion of that capacity is being sought in this EA Approval.

#### Resolution #4: Plant Optimization and Economic Issues

This resolution provides that the City will optimize plant operations and energy use at the MTP and will make certain economic information relating

to the water and wastewater systems, including the MTP, available in accordance with the details of the resolution.

#### Resolution #5: Biosolids Utilization Issues:

This resolution documents the amendments to be made to section 13 of the Environmental Assessment in accordance with the Biosolids Addendum; specifies the details of the City's commitment to end incineration at the MTP site; establishes a requirement for a long-term market study for beneficial uses; requires the City to seek short term contingency options; and sets the process in place for the completion of a Master Plan for the management of all sludges and solids in the City's wastewater and water systems.

#### Resolution #6: Tertiary Treatment

This resolution provides that the City will seek approval in this EA for tertiary treatment of the plant effluent, although it does not intend to seek other necessary approvals or implement tertiary treatment unless it is necessary to meet MOE requirements for effluent quality or in order to achieve disinfection of the effluent by ultraviolet radiation under bypass conditions. The City will conduct a cost benefit analysis of different options prior to seeking approval for and implementing any particular technology.

#### Resolution #7: Ultraviolet Disinfection of MTP Effluent

This Resolution sets out the City's commitment to implementing an ultraviolet (UV) disinfection system for MTP effluent and discontinuing the use of chlorine disinfection. A study will be completed to optimize the design of the UV system, with review and input relating to the implementation provided by the MTP EA Approval Implementation and Compliance Monitoring Committee (ICMC), to be established according to the provisions of Resolution #10. Two alternative implementation plans and schedules are included, depending upon whether or not the installation of the UV system must be coupled with the construction of a new outfall pipe.

#### Resolution #8: Near Shore Water Quality and MTP Outfall Pipe

This resolution sets out the City's agreement that the near shore water quality in the vicinity of the MTP and in Coatsworth Cut is unacceptable and that it must be improved as soon as possible. It is agreed that only 20% of the

problem would be addressed by the construction of a new outfall pipe and the closure of the seawall gates. Eighty percent of the near shore water quality problem in the vicinity of the MTP and in the nearby recreational waters is caused by the three combined sewer outlets and the stormwater outlet which presently discharge into Coatsworth Cut. The resolution specifies water quality monitoring and posting requirements, sets out the process for developing solutions, and includes compliance monitoring in the mandate of the ICMC. The resolution also clarifies that the EA approval sought for the outfall pipe is generic in nature, with need, design parameters and other matters to be determined as part of a specified comprehensive OWRA approval process.

#### Resolution #9: Good Neighbour Issues

This resolution establishes terms of reference for the MTP Neighbourhood Liaison Committee (NLC) and sets out the City's commitments regarding issues that could have a direct impact on the neighbours of the MTP. Details are established for addressing the following issues: noise, odour and air emissions, truck traffic, visual impacts, the creation of an approved Site Plan, and the storage of chemicals on site. The resolution also documents certain commitments made by the City relating to the withdrawal of a risk assessment study from this EA and the circumstances that would govern any future study of health impacts. It also documents the City's commitment to arrange a meeting to continue the discussion of the issue of a community public health study with the Medical Officer of Health and the mediation participants, and hopefully resolve it. Finally, this resolution notes that the participants discussed, but did not agree on the need for a comprehensive epidemiological study of the residents in the vicinity of the MTP.

#### Resolution #10: Implementation, Review and Compliance Monitoring

This resolution amends the implementation plan in the EA and includes provisions to ensure that the commitments made by the City in this Mediation Agreement are respected in all relevant future City initiatives. The resolution also specifies the detailed factors that will be examined and determined as part of each five year review process, including the potential extension of the planning horizon for this EA and the potential expansion of the liquid or solid capacity of the MTP. Finally, this resolution establishes the MTP EA Approval Implementation and Compliance Monitoring Committee (ICMC) with a mandate to provide public input and review of

implementation issues and to monitor and report to City Council on the City's compliance with this EA Approval, including conditions of approval and the terms of the Mediation Agreement.

#### Resolution #11: The Role of the Private Sector

This topic was addressed by a preamble that acknowledges: that the City has not examined the role that the private sector could play in the ownership or management of the either the MTP or the wastewater system; and that there was strong disagreement among the participants about the advantages and disadvantages of public sector versus private sector ownership and management options. With the exception of the City, the participants agreed that the City should conduct a comprehensive study of the issue, with input from all stakeholders, to provide a framework for any potential future consideration of this matter. This remains one of the unresolved issues in this mediation.

The full text of the eleven resolutions is contained in the Mediation Agreement, set out in section 6.0.

Subject to the ratification process outlined in the introduction to this report and their rights to make submissions to the Minister regarding the unresolved issues, the following participants (listed in alphabetical order) have reached agreement and have executed the Mediation Agreement.

- Elizabeth Brubaker, Environment Probe;
- Karen Buck, Citizens for a Safe Environment;
- Stephen Connell, concerned Beaches resident;
- David Done, Secretary, Safe Sewage Committee and concerned Beaches resident;
- Peg Lush, Former RAP Public Advisory Committee member, member of Safe Sewage Committee, and concerned Beaches resident;
- Jim Neff, Member of Citizens for a Safe Environment;
- Bob Pickett, City of Toronto – Director Water Pollution Control;
- Mark Rupke, City of Toronto – Senior Engineer;
- Karey Shinn, Chair, Safe Sewage Committee; and
- Stephen Whyte, Concerned East Toronto resident.

## 4.0 Unresolved Issues

Two major issues of concern regarding the MTP Environmental Assessment, as noted in Resolutions #9 and #11, remain unresolved by this mediation process. These issues are:

1. the need for a comprehensive study of the role of the private sector in the ownership or management of all or parts of the wastewater treatment system in the City of Toronto; and
2. the need for a comprehensive epidemiological study of residents in the vicinity of the Main Treatment Plant to document public health in the area.

In addition, a major issue relating to a request for participant funding for this mediation process remains unresolved. This issue was raised by the participants at the orientation session on December 16, 1999 and several times during the course of the mediation process. A formal application for participant funding was submitted to the City by all participants to the mediation process to compensate them for the time and expertise that they contributed to this process. A copy of that application is attached. This request has not been refused by the City, but remains under consideration and is outstanding as of the date of this Report.

With these exceptions, the signatories to the Mediation Agreement (as identified in section 3.0 of this Report) were able to reach agreement. The signatories to the Mediation Agreement have been advised that they may, should they wish to do so, write directly to the Minister to advise of their concerns regarding these unresolved issues and to request that the Minister make such decision with respect to them as is within his jurisdiction. In signing this Mediation Agreement, these participants have specifically reserved their rights to do so.

Of the nine groups or individuals who made submissions on the City's Environmental Assessment in March 1998, three did not participate in this mediation process. I was advised by the City, early in the mediation process, that Mr. Don Gratton and Mr. Dean Young had been invited to participate but had declined since they were satisfied with the way in which the City proposed to address their comments. I have not communicated



directly with either individual, however, having reviewed their comments on the EA, it is clear that the issues that they raised have been comprehensively addressed in this mediation, at least to the satisfaction of the signatories to the agreement.

The third submitter, the office of the Medical Officer of Health for the former City of Toronto, no longer exists in an official capacity. The mandate and responsibilities of that office are now within the jurisdiction of the proponent City of Toronto. I have had no communication with the individual who held that office at the time that those submissions were made.

One of the individual participants in the mediation process was not successful in achieving resolution of any of her issues. Ms Debra Kyles participated in almost half of the mediation sessions, attending from time to time throughout the process. She was unable to make herself available for all sessions because of other commitments. Ms Kyles participated actively and had obviously dedicated a considerable amount of time, energy and effort into this EA process over the years. Unfortunately, although there was a considerable amount of overlap between the matters of concern to Ms Kyles and the matters of concern to the other participants, she determined that the Agreement reached by the other participants did not resolve her issues to her satisfaction. She has been advised that she may, should she wish to do so, write directly to the Minister to advise of her concerns and whether her position has changed from the submission that she made in March 1998.

Ms Elizabeth Borek represented the Lakeside Area Neighbourhoods Association (LANA) throughout the mediation process. She attended virtually all of the sessions and participated actively and thoughtfully throughout. LANA's major interest was the protection of public health in the communities near the MTP.

At the conclusion of the process, Ms Borek advised that she was unable to execute the Mediation Agreement, despite her support for the process that led to it and for the substance of most of the resolutions. Since her organization's major interest was community public health, and since the primary purpose of wastewater treatment plants, including the MTP, should be the protection of public health, LANA concluded that it was not prepared to support the approval of this Environmental Assessment in the absence of

a study that documented the state of public health in their community. LANA supported the withdrawal by the City of Senes Risk Assessment (see Resolution #9) but considers the absence of any suitable public health study to be too significant to be compensated by the other benefits of the Agreement.

## **5.0 Conclusion**

The City of Toronto and the other participants in this mediation process have made a very significant commitment over the past four months to resolving their differences in an agreed fashion. Each participant's commitment has involved two or three hundred hours of mediation sessions, countless preparation hours, lengthy days and evenings, considerable opportunity costs and actual costs, a large reservoir of patience, understanding and cooperation and much good will and good humour. It has been a pleasure to have had the opportunity to work with such a dedicated group of public participants and municipal staff. I believe that all participants deserve a considerable amount of credit and congratulations for a job well done.

Thanks are also due to Ms Christine Iamonaco, Public Consultation Coordinator, for her flawless attention to administrative details and to Ms Carolyn Pettitt of LURA Group, for her excellent minute taking skills and rapid turn around time.

The issues that remain outstanding at the conclusion of this mediation process are relatively few in number; however, the willingness of the signatories to reach agreement on the majority of issues should not be seen to diminish the significance of these outstanding issues to them or to the other participants who did not sign the Mediation Agreement. The participants have specifically reserved their rights to make written submissions to the Minister regarding these outstanding issues and request that the Minister provide them with an opportunity to do so before deciding this matter.

The signatories to this Mediation Agreement are requesting the Minister to exercise his discretion under the Environmental Assessment Act in accordance with the agreement that they have reached. As the mediator of this process, I urge the Minister to accept that request.

**Dated at Toronto, Ontario this 16<sup>th</sup> day of April, 1999**

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**Stephen Garrod, Mediator**

## **6.0 The Mediation Agreement**

The attached Mediation Agreement is in three parts: the executed Agreement itself; a summary of the agreed amendments to the Environmental Assessment; and the eleven Resolutions which were developed during the mediation sessions. A full copy of the Mediation Agreement follows.

## **Mediation Agreement**

### **City of Toronto MTP Environmental Assessment**

The undersigned parties agree as follows:

1. That they have participated in this mediation process cooperatively and in good faith.
2. That they have reached certain agreements with each other that are set out in the attached documents, all of which form part of this Mediation Agreement:
  - 2.1 Agreed Amendments to the Environmental Assessment; and
  - 2.2 Resolutions #1 through #11.
3. That they have reached agreement that the name of the "Main Treatment Plant" shall be changed by the City to the "Ashbridges Bay Treatment Plant", effective immediately upon the ratification of this Mediation Agreement, as set out below.
4. That where the individual signatories to this Agreement have participated in the mediation on behalf of a group or organization, they agree to recommend this Mediation Agreement to their group or organization as soon as possible and to take all reasonable steps to obtain a resolution from the group or organization, ratifying this Mediation Agreement. All such resolutions shall be provided to the Mediator and to the City's Works and Emergency Services Department Public Consultation Coordinator for distribution to all participants. When all groups or organizations, including Toronto City Council have ratified the Mediation Agreement, the Mediator shall forward copies of all such resolutions to the Minister of the Environment.
5. That immediately upon the ratification of this agreement by City Council and the other signatories, the City agrees that it will take all necessary steps to commence the implementation of all parts of this Mediation Agreement that do not require explicit approval by the Minister.

6. That upon the receipt by the Minister of confirmation from the Mediator that the participating groups or organizations, including Toronto City Council, have ratified the Mediation Agreement, they hereby request the Minister of the Environment to:
  - 6.1 amend the City's Environmental Assessment in accordance with this Mediation Agreement; and
  - 6.2 grant EA approval subject to the conditions attached to this Mediation Agreement.
7. That the EA approval should be made subject to the following conditions:
  - 7.1 This Mediation Agreement forms part of the City's Environmental Assessment and should there be any conflict or inconsistency between the Environmental Assessment as submitted by the City and the provisions of this Mediation Agreement, the provisions of this Mediation Agreement shall prevail.
  - 7.2 The City of Toronto shall comply with all of its commitments as set out in this Mediation Agreement.
  - 7.3 The City of Toronto shall not carry out any undertaking that is permitted by this approval unless the City is in full compliance with these conditions.
  - 7.4 The City shall file with the appropriate Regional Director of the Ministry of the Environment or his designate, by March 31 of each year, an Annual Report regarding its compliance with the conditions of this Approval during the previous calendar year. The City shall include in its Annual Report a summary of any items of non-compliance, including the steps taken by the City to bring the matter back into compliance and the results achieved by those steps.
8. That the following issues remain unresolved as of the date of this Mediation Agreement:

- 8.1 a request, supported by all participants other than the City representatives, for a comprehensive public health study of residents who live in the vicinity of the MTP;
- 8.2 a request, supported by all participants other than the City representatives, for a comprehensive study of the potential role of the private sector in the ownership or management of all or parts of the wastewater treatment system in the City; and
- 8.3 a request, supported by all participants, other than the City representatives, for participant funding from the City to compensate them for the time and expertise that they contributed to this process.

As a result of these unresolved issues, the undersigned participants, with the exception of the representatives of the City of Toronto, consider this Environmental Assessment to be incomplete and reserve their full rights to make independent written representations to the Minister of the Environment and the City of Toronto regarding these unresolved issues.

This Agreement dated at Toronto, Ontario this 16th day of April ,1999.

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Elizabeth Brubaker

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Karen Buck

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Stephen Connell

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David Done

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Peg Lush

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Jim Neff

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Bob Pickett

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Mark Rupke

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Karey Shinn

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Stephen Whyte

## **Agreed Amendments to the MTP Environmental Assessment**

The signatories to the Mediation agreement agree that the following amendments are to be made to the MTP Environmental Assessment Document:

1. Generally, the Environmental Assessment is to be amended in accordance with the Mediation Agreement, incorporating all Resolutions.
2. Specific amendments include:
  - 2.1 The addition of the Guiding Principles contained in Resolution #1 to the EA Implementation Plan;
  - 2.2 The deletion of Table 17.4 from section 17 of the Environmental Assessment; and its replacement with Table 17.4, Table 17.5 and the explanatory text attached hereto;
  - 2.3 The Addendum regarding Biosolids Management attached to Resolution #5, including Figures A, B, C and D;
  - 2.4 The Addendum regarding Disinfection of Plant Effluent attached to Resolution #7;
  - 2.5 The revision of the base map for Figures 17-1, 17-2 and any other figures in the EA that rely upon the same base map, to correct the labelling of the combined sewer outfalls and the stormwater outfall that discharge into Coatsworth Cut;
  - 2.6 The addition of the following defined terms to the Glossary contained in section 23 of the Environmental Assessment:

*Effectiveness:*

- *The capability of producing desired results.*

*The Objective of Wastewater Treatment:*

- *To remove, to the extent possible, the pollutants in the wastewater, and thereby protect the environment.*



*Effectiveness of the MTP:*

- *The degree to which it removes pollutants from the wastewater, and reduces environmental impacts.*

*The Effectiveness of Alternatives:*

- *Will be measured based on the degree to which they reduce environmental impacts.*

*Upgrade:*

- *Either the replacement/maintenance of existing plant processes/technologies or a change in plant processes/technologies for the current rated flow in the existing service area. An upgrade would not provide redundancy or any potential increase in capacity.*

*Expansion:*

- *Any change in existing processes or technologies that would:*
  - *allow for treatment of new incoming flows beyond the approved capacity of the MTP (as described in Resolution #3 of this MTP Mediation Document);*
  - *allow for treatment of new incoming flows from beyond the existing service area; or*
  - *increase the solids loading coming into the plant beyond 253 dry tonnes per day.*

*Redundancy:*

- *Capacity or safety factor built into the component parts or the whole system so that repair and maintenance can take place without an interruption of plant processes or operation of plant equipment. Redundancy would not provide for any potential increase in plant capacity.*

*Back up:*

- *Contingency management alternatives/technologies for unexpected operations failure at the MTP. A specific example of back up would be the provision for an off-site landfill for biosolids disposal, in the event of a biosolids program failure.*

*Contingency:*

- *Something unforeseen; a possibility; something that may occur at a future date.*
- 
- 2.7 The replacement of Table 1.1 (page 1-7 of EA) with revised Table 1.1 attached to Resolution #1 hereto;
  - 2.8 The withdrawal of the Senes Risk Assessment Study and any conclusions based upon it from this EA, in accordance with Resolution #9;
  - 2.9 The inclusion of the Master Schedule and the Committee and Reporting Structure attached to Resolution #10 as part of the Implementation Plan for this EA;
  - 2.10 The clarification that the EA approval being sought by the City for a new outfall pipe for the MTP is a generic approval in so far as a number of parameters relating to the length, capacity, location and design of the outfall pipe are not being determined by this EA Approval but shall be determined in the OWRA approval process;
  - 2.11 The deletion of any application for EA approval for any CSO or stormwater related undertaking; and
  - 2.12 The deletion of any application for expansion of the liquid or solids handling capacity of the MTP, except in accordance with the provisions of the Mediation Agreement.

Revised Table 17.4

<b>Table 17.4</b> <b>Main Treatment Plant Upgrade Projects</b>			
<b>Upgrade</b>	<b>Reason for Upgrade</b>	<b>Planned Implementation Date</b>	<b>Approvals Necessary</b>
<u>Construct new disinfection system.</u>	To improve the effectiveness of the MTP at reducing environmental impacts by producing improved effluent quality with respect to disinfection.	To phase in with new outfall.	<ul style="list-style-type: none"> <li>• Ontario EA Act</li> <li>• Ontario Water Resources Act</li> </ul>
<u>Construct new outfall.</u>	To handle peak flows at the plant and eliminate the need for the seawall gates (improve effectiveness of MTP at reducing environmental impacts).	2000 to 2006	<ul style="list-style-type: none"> <li>• Ontario EA Act</li> <li>• Canada EA Act</li> <li>• Fisheries Act</li> <li>• Ontario Water Resources Act</li> </ul>
<u>Construct effluent pumping station.</u>	To handle peak flows at the plant and eliminate the need for the seawall gates (improve effectiveness of MTP at reducing environmental impacts).	2000 to 2006	<ul style="list-style-type: none"> <li>• Ontario EA Act</li> <li>• Ontario Water Resources Act</li> </ul>
<u>Tertiary Treatment Facilities</u> (e.g. filtration, nitrification).	Required if stricter effluent regulations are required in the future by MOE or if required for UV disinfection.	TBD	<ul style="list-style-type: none"> <li>• Ontario EA Act</li> <li>• Ontario Water Resources Act</li> </ul>

New Table 17.5

<b>Table 17.5</b> <b>Works Dependent on Future Solids</b>			
<b>Increase of Solids Handling Capacity</b>	<b>Reason for Increase</b>	<b>Planned Implementation Date</b>	<b>Approvals Necessary</b>
<u>Sludge Treatment:</u>  Increase solids handling capacity up to 253 dry tonnes per day incoming flow (digestion, dewatering, and beneficial use program).	Required to treat additional wastewater solids.	TBD	<ul style="list-style-type: none"> <li>• Ontario EA Act</li> <li>• Ontario Water Resources Act</li> </ul>

## ADDENDUM: Explanatory Text Regarding Tables 17.4 and 17.5

### The Preferred Alternative/Undertaking

This addendum addresses Table 17.4, listed on page 17-7 of Volume 1 of the MTP EA, and the addition of a new Table 17.5.

Table 17.4 contains those projects listed under the heading “Main Treatment Plant Upgrade Projects”, for which the City is seeking EA approval at this time. This Table has been modified by deleting reference to all "expansion" projects and all projects that are linked to the potential increase of CSO to the MTP. As these projects would be reviewed and considered as part of the Wet Weather Flow Master Plan environmental assessment, the City is prepared as part of the mediation process to withdraw these CSO related projects. This Table has also been modified by including “Tertiary Treatment” in Table 17.4 as a project for which the City is seeking EA Approval now, based on the emphasis placed on the introduction of tertiary treatment through the mediation process and the potential for it to be required by the MOE during the first five-year review period.

Table 17.5 is titled “Works Dependent on Future Solids”. The project listed will not be included as part of the EA approval at this time. However, the City feels it is important to maintain the potential for this project to be approved as part of the five year review process. It is linked to wastewater treatment, as opposed to CSO treatment, and as such will not be directly revisited through the Wet Weather Flow Master Plan. The increase of solids handling capacity up to 253 dry tonnes per day (incoming flows) may be necessary to handle the solids loading which could be associated with population growth in the service area during the planning period. The first 5-year review will examine whether or not the project listed above should be implemented based on wastewater flow rates and regulatory requirements, and the recommendations of the Water and Wastewater Solids Master Plan (refer to Biosolids Addendum).

## **RESOLUTION # 1**

### **Guiding Principles**

The City and the other mediation participants agree that the following Guiding Principles shall apply to all initiatives that implement any part of the MTP Environmental Assessment Approval and to all other initiatives that implement any of the matters dealt with in this mediation. In particular, the City will ensure that these guiding principles form part of the mandate of any study, committee, implementation plan, consultant's terms of reference, or any other City initiative to address any of the issues dealt with by the other Resolutions that are reached in this mediation.

The Guiding Principles shall be:

1. The Purpose, Goals and Objectives of the Environmental Assessment as set out on pages 1-6 and 1-7, including Table 1.1 (amended as set out below), of the Environmental Assessment Document;
2. The Goals set out in Table 1.1 as revised by this Mediation Agreement and attached hereto;
3. The Goals and Objectives of the Remedial Action Plan (RAP) as adopted by Metro Council on January 29, 1992, and set out on pages 2-3 to 2-6 of the Environmental Assessment Document;
4. The principle that the finite approved capacity of the Main Treatment Plant should be conserved for its primary purpose of treating sanitary sewage and that stormwater directed to the MTP, alone or combined with sanitary sewage, compromises the ability of the Plant to fulfill its primary purpose;
5. The principle that the area of the MTP Site should be reserved primarily for activities and developments that are directly related to its primary purpose, to maximize the efficiency of the MTP and to minimize pressures for lakefilling. Activities or developments that are not directly related to the primary purpose of the MTP may be permitted at the MTP Site only if:

- the MTP Neighbourhood Liaison Committee has been fully informed and consulted;
  - a comprehensive analysis of alternative locations has been conducted, having regard to the definition of the environment from the Environmental Assessment Act, and the MTP Site has been determined to be the preferred alternative;
  - the activity or development can be located at the MTP Site, without compromising the ability of the Site to accommodate future requirements for sanitary sewage treatment and without increasing pressures for lakefilling;
  - the activity or development will not compromise the beneficial use of biosolids at the MTP;
  - the approved Site Plan either contemplates the activity or development or can be amended to provide for it without compromising its integrity;
  - the activity or development will not cause any adverse impact on the quality of air, water or land in the vicinity of the MTP;
  - the activity or development will not cause any adverse impact on the quality of the final effluent from the MTP or on near shore water quality;
  - the activity or development will not increase off site nuisance impacts on residential, recreational or other sensitive land uses in the vicinity; and
  - the activity or development will not cause an adverse visual impact from any off site location.
6. The principle that initiatives undertaken by the City to implement this EA Approval should be subject to a full analysis of all alternatives, full public consultation and participation and full public access to relevant information, as if part of a continuing environmental assessment;
7. The "user pays principle": that all economic, environmental and social costs attributable to the construction and use of the water and sewer systems should be internalized and should be borne by the users.
8. The principle that every individual has the right to an adequate amount of clean water and sewage disposal to meet their basic human needs at a

reasonable cost and no person shall be denied this right through inability to pay.

9. The principle that the MTP Site should be made as visually attractive as possible on-site and from nearby roads, residential and recreational areas and from the water. Future buildings and structures at the MTP Site, and renovations of existing ones, should be constructed in an aesthetically pleasing manner which is harmonious with the neighbouring natural and recreational setting.

10. The principle of Bioethic Optimization as set out below:

In the context of this Environmental Assessment for the Main Treatment Plant (MTP), Bioethic Optimization means the technically systematic optimization of the MTP, including the associated infrastructure that conveys sewage to the MTP and effluents from the MTP, to maximize all bioethical benefits associated with that system, while at the same time achieving acceptable minimization of negative impacts.

In all cases, the objective is the optimum result from the perspective of human health and safety and ecological preservation.

Maximization of such bioethical benefits would include:

- maximizing improvements to the quality of sludges for beneficial use;
- maximizing liquid effluent water quality so that it sustainably impacts receiving water bodies;
- maximizing the quality of gaseous non-incinerating derivatives and emissions so that they sustainably impact the surrounding airshed to the plant and its associated infrastructure; and
- maximizing all other similar benefits.

Bioethical Optimization also minimizes adverse impacts that may be associated with the MTP, its collection system and its effluent streams. Such associated adverse impacts to be minimized would include:



- minimizing contaminants in all liquid effluents to minimize adverse effects on the ecosystems of receiving waters and promote their sustainability;
- minimizing contaminants in all air emissions from the MTP, its outfall and the collection system;
- minimizing adverse impacts on local or global ecosystems that may be affected by the MTP, its collection system or its effluent system; and
- minimizing
  - all toxins recognized by appropriate authorities as hazardous;
  - unacceptable odours;
  - unacceptable visual blight;
  - residual chlorinated organic compounds in liquid effluent streams;
  - toxic air emissions;
  - eutrophication of watercourses receiving liquid effluents; and
  - all similar harmful effects to affected ecosystems and human health.

Bioethic Optimization only maximizes benefits within an acceptable minimization of negative impacts. Therefore, the application of this concept in this context may require weighting factors to be assigned to individual bioethic factors and to adverse impacts in order to model bioethic optimization.

Revised Table 1.1

<b>Table 1.1: Revised Main Treatment Plant Environmental Assessment Goals</b>	
<b>Natural Environment</b>	
•	To aim for the virtual elimination of persistent toxic contaminants in discharges to the ecosystem.
•	To ensure that all discharges and emissions meet or better all applicable environmental standards.
•	To assist in the virtual elimination of untreated overflows from combined sewers (CSOs).
•	To eliminate the need for the seawall gates.
•	To minimize secondary by-passing.
•	To minimize adverse impacts on fish, aquatic habitats, waterfowl, vegetation and wildlife.
<b>Health Environment</b>	
•	To ensure that community health is protected.
•	To secure the safety of plant personnel and the public.
•	To protect the health of the ecosystem and its biota.
<b>Social Environment</b>	
•	To minimize odours.
•	To minimize noise impacts.
•	To minimize adverse impacts on recreational and residential uses.
•	To enhance the aesthetic quality of the waterfront.
•	To facilitate public access along the waterfront.
<b>Technical and Economic Environment</b>	
•	To ensure that anticipated wastewater treatment needs to the year 2011 are met.
•	To ensure that the solution is practical, is energy efficient, and utilizes the best available technologies and processes.
•	To minimize capital and operating costs, while meeting technical, environmental and social goals.

## **RESOLUTION #2**

### **Source Control Issues**

The City and the other mediation participants agree that issues relating to the following individual source control initiatives will be resolved for the purposes of the MTP EA by conditions to be imposed on the EA Approval requiring the City to implement them as follows:

#### **1.0 Sewer Use Bylaw**

- 1.1 The establishment, implementation and enforcement of a new sewer use bylaw shall be guided by the Guiding Principles set out in Resolution #1.
- 1.2 The specific objectives intended to be achieved through this initiative shall include:
  - 1.2.1 to ensure that the quality of biosolids at the Wastewater Treatment Plants is maintained and continually improved to ensure compliance with present and future criteria for beneficial use;
  - 1.2.2 to ensure that the collection and treatment system is not adversely affected by any discharges to the system;
  - 1.2.3 to ensure that final effluent quality is maintained and continually improved to ensure compliance with present and future discharge criteria;
  - 1.2.4 to ensure that toxics that cannot be treated and removed from final effluent and biosolids are eliminated from discharges to the system; and
  - 1.2.5 to ensure that the costs associated with the collection and treatment of wastewater discharges to the system are borne by those who impose the burden on the system.
- 1.3 The City will establish and implement a new Sewer Use Bylaw generally in accordance with the draft Public Consultation Plan and Schedule, dated March 30, 1999 (attached hereto);

- 1.4 The City will implement an Education Program that will complement the new Sewer Use Bylaw. This program will be aimed at both industries and the public. The education program will include information to effectively discourage the use of pesticides by private individuals on City owned road allowances and boulevards, to minimize pesticide contamination of stormwater runoff.
- 1.5 The City will continue and where necessary increase its efforts to ensure the effective enforcement of the mandatory provisions of the Bylaw.
- 1.6 The City will, as part of its public consultation process, examine the potential of an Incentive Program to encourage compliance with the voluntary provisions of the Bylaw (for example, to encourage on-site pretreatment of industrial effluents beyond required levels).
- 1.7 The City will enter into negotiations with the Region of Peel to ensure that the same level of enforcement of equivalent requirements occurs in those parts of Peel Region that contribute sewage to the City's collection and treatment system. Similar requirements will be included in any other agreements that may be made with any other municipalities.
- 1.8 The City will request and actively encourage the provincial government of Ontario and/or the federal government of Canada to prohibit or appropriately regulate any consumer products that are intended for disposal in household drains (eg. shampoos, detergents, drain cleaners, etc.) that contain toxic substances that are undesirable in the sewage collection or treatment system or the receiving waters.
- 1.9 The City will request and actively encourage the provincial government of Ontario and/or the federal government of Canada to prohibit or appropriately regulate the control of pesticide use on private property in the City of Toronto to minimize or eliminate pesticide contamination of stormwater runoff.
- 1.10 The City will phase out the use of pesticides on City owned public lands in accordance with recommendations from its Pesticides Committee.

- 1.11 Upon the passage of a new Sewer Use Bylaw by City Council, the function of providing ongoing monitoring and public input relating to potential impacts on the Main Treatment Plant shall be assumed by the MTP EA Approval Implementation and Compliance Committee (ICMC).

## **New Sewer Use By-law City of Toronto**

### **Public Consultation Plan and Schedule January 1999 to December 1999**

**Draft March 30, 1999**

#### **Step 1 Pre-Consultation**

Pre-consultation release for public and industry preview of the Draft New Sewer Use By-law. A feedback form is included as part of the pre-consultation process. Its purpose is to receive input on proposed consultation activities and the Draft New Sewer Use By-law. Input will be evaluated. Public and industry consultation activities will be modified and prepared to reflect input received.

**January 1999 to April 1999**

#### **Step 2 Inform Works and Utilities Committee and Council**

Works and Utilities Committee and City Council to receive an information item about the Draft New Sewer Use By-law and the 2-month public and industry review period.

- Inform Works and Utilities Committee on **April 21, 1999**
- Item proceeds to City Council on **May 11-12-13, 1999**

#### **Step 3 Distribution of the Draft New Sewer Use By-law**

- Following Council's receipt of the item, the Draft New Sewer Use By-law will be mailed out to public and industry mailing list (**end of April 1999**)
- Draft New Sewer Use By-law will be placed on the web
- Comments will be able to be submitted back using the web

#### **Step 4 Public and Industry Consultation Review Period**

It is proposed to hold two-month review period of the draft New Sewer Use By-law

- **May 3, 1999 to July 9, 1999.**

There will be a public and industry presentation meeting to introduce the New Sewer Use By-law in **May 1999**. Public (including non-governmental organizations) and industry will be invited to the presentation meeting at the beginning of the review period. This will include direct invitation to names and groups on the mailing list and notification in several newspapers and notification on the web site. The purpose of the presentation meeting to inform interested groups about the intent of the by-law, and its variation from Ministry of Environment's draft guidelines. It will include presentations by the City of Toronto, Quality Control and System Planning, Water and Wastewater Services Division and World Wildlife Fund. There will be opportunity for questions and answers, and comments.

### **Step 5            Receiving and Integrating Comments**

Comments will be received in three ways:

- Submitted in writing (to Christine Iamonaco, Public Consultation Co-ordinator, City of Toronto, Technical Services)
- Comments submitted from the web site
- Fax back to the city at 392-2974

Final comments are due into the City by **July 9, 1999**. Comments will be grouped into same/similar comments and categories of comments. The City of Toronto, Quality Control and System Planning, will integrate comments received and prepare a final New Sewer Use By-law. The (final) New Sewer Use By-law will proceed to a final legal review.

### **Step 6            Introduction of the (Final) New Sewer Use By-law**

It is planned to present the New Sewer Use By-law at an open house in **September of 1999**. The purpose of the open house is to make a presentation on the New Sewer Use By-law. Public and industry will be informed of types of comments received. Reasons and/or rationale for how groups or categories of comments were considered will be provided. There will be opportunity for questions and answers.

### **Step 7            New Sewer Use By-law Goes to Works and Utilities and City Council for Approval**

The New Sewer Use By-law will proceed on to Works and Utilities, in approximately **November/December of 1999**, and then to City Council for approval and adoption as a city by-law.

The final opportunity for public and industry to give input on the New Sewer Use By-law will be in deputation before Works and Utilities Committee, prior to its final approval by City Council.

### **Other Public Consultation Activities**

A mailing list will be created and maintained as a means of keeping interested parties informed. It will include industry, non-governmental organizations, and interested public.

### **Flexible Consultation Plan**

If need arises for other consultation activities we will try to be flexible and responsive.

### **Presentation by Invitation**

Groups, organizations and industry may request that the City come and make presentations on the New Sewer Use By-law. To arrange for a presentation please call Victor Lim, Manager, Industrial Waste and Stormwater Quality, (416) 392-2966.

**Public and Industry Proposed Consultation Schedule**

<b>Step</b>	<b>Activity</b>	<b>Dates</b>
<b>Step 1 Pre-Consultation</b>	Preview of the Draft New Sewer Use By-law Feedback form	<b>January 1999 to April 1999</b>
<b>Step 2 Inform Works and Utilities Committee and Council</b>	Works and Utilities Committee and City Council to receive an information item about the Draft New Sewer Use By-law	<b>April 21, 1999 &amp; May 11-12-13, 1999</b>
<b>Step 3 Distribution of the Draft New Sewer Use By-law</b>	Draft New Sewer Use By-law will be mailed out and placed on the web	<b>end of April 1999 following Works and Utilities receiving information report</b>
<b>Step 4 Public and Industry Consultation Review Period</b>	Two-month review period of the Draft New Sewer Use By-law	<b>May 5, 1999 to July 9, 1999.</b>
<b>Step 5 Receiving and Integrating Comments</b>	Comments will be received	<b>Deadline for comments, July 9, 1999</b>
<b>Step 6 Introduction of the (Final) New Sewer Use By-law</b>	Open house to introduce finalized by-law	<b>September 1999</b>
<b>Step 7 New Sewer Use By-law Goes to Works and Utilities and City Council for Approval</b>	Council approval sought for New Sewer Use By-law	<b>November/December 1999</b>



## **2.0 Water Efficiency Plan**

- 2.1 The City agrees that it will develop, adopt and implement a Water Efficiency Plan, meeting the objectives set out below, generally in accordance with the Implementation Plan and Schedule attached hereto.
- 2.2 The establishment and implementation of the Water Efficiency Plan shall be guided by the Guiding Principles set out in Resolution #1.
- 2.3 The specific objectives that are intended to be achieved through this initiative shall include:
  - 2.3.1 to minimize the amount of wastewater that is produced by water consumers in the City to preserve the approved capacity of the MTP and other treatment plants;
  - 2.3.2 to ensure that no increase in the capacity of the Main Treatment Plant is required during the planning period from 1999 to 2011 and that any future infrastructure requirements are deferred for as long as possible;
  - 2.3.3 to ensure that the City uses best efforts to meet any commitments to supply water beyond its boundaries through water conservation measures;
  - 2.3.4 to ensure that all costs of water treatment and distribution and wastewater collection and treatment are fully reflected in water rates;
  - 2.3.5 to identify the benefits and the avoided costs, in both the water and wastewater systems, that can be achieved through various water efficiency scenarios; and
  - 2.3.6 to ensure that a water efficiency plan is implemented in the City that achieves the water efficiency goals as updated from time to time.
- 2.4 The City agrees that the initial goal of 15% reduction by 2011 that it set for the WEP is a modest goal that is at the low end of the 13% to 23% range that was both identified as achievable by its consultant, R.V. Anderson and Associates and adopted as a target range by Council in 1991.

- 2.5 The City further agrees that there are significant public and private cost savings and environmental benefits that potentially could be achieved by water efficiency measures beyond its initial goal of 15% by 2011.
- 2.6 The City agrees that this initial goal is to be reviewed and updated every year, commencing in 2000, to determine if greater reductions are reasonably achievable. If so, the WEP will be amended and implemented accordingly to achieve the revised goal. Included in the first review in 2000 will be a consideration of the results of the water rate study, referred to below.
- 2.7 The City agrees that if a reduction of at least 15% of the projected average annual day demand for 2011 is achieved by December 31, 2011, that no expansion of the capacity of the MTP will be necessary, to that date. The City agrees that such a reduction is achievable, even without considering the potential efficiencies that could be achieved through increasing water rates, and that it will take such steps as are necessary, to ensure that such a reduction is achieved.
- 2.8 The City agrees that, prior to the first review of the goals of the WEP in 2000, it will conduct a water rate study to examine the demand elasticity of the different sectors of water users in Toronto and to analyze what changes in rates and rate structures could best achieve reductions in these various sectors. In particular, the study will examine the potential for reducing water use through rates that reflect the full economic, environmental and social costs of water use and treatment of the wastewater generated by such use. The study will also include an examination of measures to ensure that the burden of any water rate increases is equitably distributed.
- 2.9 The Water Efficiency Plan shall:
- 2.9.1 establish short-term and long-term demand forecasts for the City of Toronto, with and without the implementation of water efficiency measures;

- 2.9.2 identify the water efficiency alternatives for managing water supply and demand by evaluation, including cost-benefit analyses, of impacts on both the Water Supply and Water Pollution Control Systems;
  - 2.9.3 develop and implement a plan for long-term and short-term strategies, including costs and schedules;
  - 2.9.4 develop an evaluation system for monitoring the reduction in water supply consumption and to ensure that established targets are achieved;
  - 2.9.5 recognize the right of every individual to an adequate amount of clean water and sewage disposal to meet their basic human needs at a reasonable cost and that no person shall be denied this right through inability to pay;
  - 2.9.6 make use of all reasonable measures to achieve water efficiencies, including:
    - mandatory requirements;
    - incentive programs;
    - rate increases;
    - building retrofits; and
    - other economic strategies.
- 2.10 The City agrees to establish a Water Efficiency Plan Review Committee (WEP RC) in accordance with the Terms of Reference and Mandate attached hereto.
- 2.11 During the review period of the Draft WEP, and before the WEP is finalized and approved by City Council, the City will identify, for each of the following water reduction scenarios, the specific strategies that would be necessary to achieve each of them and the specific advantages and disadvantages, including avoided economic and environmental costs and benefits, of achieving each of them:
- i) at least 15% reduction by 2006;
  - ii) at least 15% reduction by 2011 and 25% by 2021;
  - iii) at least 20% reduction by 2011 and 30% by 2021; and
  - iv) at least 25% reduction by 2011 and 35% by 2021.

- 2.12 This information regarding each of these reduction scenarios shall be provided to the WEP RC for review and comment and made available for public comment, prior to its finalization and inclusion in the final WEP to be presented to Council.
- 2.13 Upon the completion of the mandate of the WEP RC, the function of providing ongoing monitoring and public input regarding the annual reviews of the goals of the WEP and making recommendations to the Commissioner of Works regarding the appropriateness of revising those goals or other aspects of the WEP, insofar as they relate to potential impacts on the Main Treatment Plant, shall be assumed by the MTP EA Approval Implementation and Compliance Committee (ICMC). The membership of the ICMC may be supplemented by former members of the WEP RC in accordance with recommendations that may be made by both the WEP RC and the ICMC.
- 2.14 In addition to the annual reviews of the WEP goals, the City agrees that at each of the five year reviews during the implementation of the MTP EA approval, it will comprehensively review the WEP to determine if it requires revisions to reflect opportunities to implement new strategies or to set new goals for further water reductions.

## **Water Efficiency Plan Schedule and Implementation Plan**

- November 1990: Metro Council engaged R.V. Anderson Associates Ltd. to recommend a water efficiency strategy for Metro Toronto.
- May 1991: R.V. Anderson report completed.
- September 1991: Metro Council approved the R.V. Anderson report, including the target of achieving a reduction in water use of 13% to 23% by the year 2011 and the use of rate increases to achieve those targets.
- March 1993: Metro Council approved in principle a long-term water efficiency strategy for Metro Toronto, including pricing policies as a principal program area.
- February 1996: Metro Council authorized the preparation of a Water Efficiency Implementation Plan (WEP).
- August 1996: Metro Council authorized budget and engagement of consultant to develop Metro wide WEP.
- September 1996  
to May 1999: Pilot projects and development of draft WEP.
- May 1999: Establishment of WEP Review Committee.  
Council authorization to conduct Rate Study.
- June 1999: Release of Draft Water Efficiency Plan for 4 month public and industry review period.  
Public presentation meeting to introduce the draft WEP.  
WEP Review Committee commences review of draft WEP and supplementary information regarding additional reduction scenarios.

Sept/Oct 1999: Public review and comment period concludes.  
WEP Review Committee integrates comments received  
and prepares recommendations to Commissioner of  
Works and Works and Utilities Committee.

WEP RC completes review and comment process on  
Rate Study and prepares recommendations.

Oct/Nov 1999: Works and Utilities Committee considers recommended  
revisions to WEP from WEP Review Committee.

Nov 1999: Works and Utilities Committee recommends revised  
WEP to Council.

December 1999: Revised WEP placed before Council for adoption.

Annual Reviews of WEP Goals to be conducted each year thereafter.  
Comprehensive review of entire WEP to be conducted at each five year  
review of MTP EA.

## **Water Efficiency Plan Review Committee Terms of Reference and Mandate**

1. The City shall establish a multi-stakeholder committee to be known as the Water Efficiency Plan Review Committee (WEP RC) by May 1999.
2. Membership on the WEP RC shall include representation from all stakeholders and total approximately 15 to 20 persons, as follows:
  - appropriate City staff;
  - at least 2 of the public members from the MTP EA Implementation and Compliance Monitoring Committee (ICMC) and 2 alternate members who may attend all meetings (all ICMC representatives to be designated by the ICMC);
  - at least 10 other interested stakeholders; and
  - such members of City Council as may wish to participate.
3. The WEP RC will have the mandate and responsibility to:
  - review the draft WEP once it has been presented to Council;
  - consider public comments received during the review period;
  - prepare recommendations to the Commissioner of Works and to the Works and Utilities Committee regarding revisions that should be made to the draft WEP, integrating public comments; and
  - review draft terms of reference for the Rate Study and for any other study or consultant commissioned to assist in the implementation of the WEP and prepare recommendations to the Commissioner of Works regarding such terms of reference and regarding the implementation of the recommendations of such studies.
4. The WEP RC shall carry out its mandate in a manner consistent with the provisions of the MTP EA Mediation Agreement.
5. Following the completion of the WEP and the Rate Study, the completion of the WEP Review Committee's recommendations on those matters and the adoption by Council of a WEP, the mandate of the WEP RC shall be completed.

### **3. Wet Weather Flow Master Plan**

- 3.1 The establishment and implementation of the Wet Weather Flow Master Plan shall be guided by the Guiding Principles set out in Resolution #1.
- 3.2 The specific objectives that are intended to be achieved through this initiative shall include:
  - 3.2.1 to ensure that wet weather flows in the City of Toronto are managed;
  - 3.2.2 to preserve the approved capacity of the MTP and other treatment plants;
  - 3.2.3 to ensure that no increase in the capacity of the Main Treatment Plant is required during the planning period from 1999 to 2011 and that any future infrastructure requirements are deferred for as long as possible;
  - 3.2.4 to ensure that the primary purpose of the MTP to treat sanitary sewage is not compromised in efficiency or effectiveness by directing stormwater to the MTP, either alone or combined with sanitary sewage;
  - 3.2.5 to reduce the flow rate of stormwater presently being directed to the MTP;
  - 3.2.6 to utilize stormwater beneficially, for example to recharge groundwater and wetlands;
  - 3.2.7 to avoid bypass situations at the MTP;
  - 3.2.8 to eliminate the CSO outlets and the stormwater outlet in Coatsworth Cut as soon as possible without impairing the primary purpose of the MTP; and
  - 3.2.9 to be in compliance with Procedure F-5-5 published by the Ontario Ministry of the Environment.
- 3.3 The City agrees that the establishment and implementation of the Wet Weather Flow Master Plan shall also be guided by the forthcoming City of Toronto Stormwater Management Policy, so long as this Policy is not in conflict with anything in this mediation agreement. This Policy is being developed with input from stakeholder groups



- and will establish guiding principles for stormwater management across the City.
- 3.4 The City agrees to undertake the development of the Wet Weather Flow Master Plan in accordance with the Class Environmental Assessment for Municipal Water and Wastewater Projects, satisfying the first two phases in the Planning & Design Process.
- 3.5 The Plan will include a comprehensive analysis and evaluation of all alternatives for managing wet weather flows (stormwater and CSOs), including:
- 3.5.1 options for the decentralization of stormwater flow management, including opportunities to maximize groundwater recharge and other beneficial uses of stormwater;
  - 3.5.2 the identification and minimization of significant sources of Inflow/Infiltration;
  - 3.5.3 the separation and elimination of combined sewers;
  - 3.5.4 the minimization of combined sewer overflows;
  - 3.5.5 the collection and treatment of combined sewer overflows;
  - 3.5.6 the use of economic instruments to reduce the quantity of stormwater entering the system; and
  - 3.5.7 opportunities to utilize existing system infrastructure.
- 3.6 The Plan will include written reasons documenting the advantages and disadvantages of all alternatives, including detailed reasons for accepting or rejecting each of the alternatives considered and each alternative proposed in the public consultation process, whether or not that alternative is accepted.
- 3.7 The WWFMP shall determine the appropriate role for the NTTP, and specifically whether it should continue to treat sewage or whether it should be dedicated to stormwater management. The appropriate role for the NTTP shall not be prejudged by anything in the MTP EA.
- 3.8 The public consultation component of the Master Plan EA shall be at least as comprehensive and as inclusive as if the Master Plan were being conducted as a full individual Environmental Assessment.

- 3.9 A Steering Committee will be established, representative of all stakeholders, totaling approximately 24 persons, as follows:
- 3.9.1 appropriate staff from the City, provincial ministries, the TRCA and other relevant public agencies (approximately 10 in total);
  - 3.9.2 approximately 10 interested members of the public, including at least 2 of the public members from the MTP EA Implementation and Compliance Monitoring Committee (ICMC) and 2 alternate members who may attend all meetings (all ICMC representatives to be designated by the ICMC);
  - 3.9.3 approximately 2 representatives of industrial interests; and
  - 3.9.4 two members of City Council, should they wish to participate.
- 3.10 The membership of the Steering Committee will recognize and reflect the central interest of stakeholders in the vicinity of the MTP and the waterfront, and the diversity of stakeholder interests across the entire City and will provide a mechanism for broad stakeholder consultation.
- 3.11 The Steering Committee shall be modeled on the former Biosolids Multi-Stakeholder Committee (BMSC). Whenever possible, the Steering Committee will make its decisions and recommendations by consensus.
- 3.12 The City agrees that the consultant hired to complete phase 2 of the WWFMP will report to and be responsible to this new steering committee, and that this steering committee will make recommendations to the Works and Utilities Committee through the Commissioner of Works and Emergency Services.
- 3.13 The City agrees that it will provide specific directions in the RFP for phase 2 and any subsequent phases of the Wet Weather Flow Master Plan Study as follows:
- 3.13.1 that the consultant is to conduct the Master Plan Study in accordance with the provisions of this Mediation Agreement;
  - 3.13.2 that the primary purpose of the MTP is to treat sanitary sewage and that the efficiency of the plant to carry out this function must not be compromised by directing stormwater to the MTP;

- 3.13.3 that to avoid bypass situations, stormwater should not be directed to the MTP in excess of its maximum approved capacity for secondary treatment;
  - 3.13.4 that the MTP has a finite approved capacity and that stormwater unnecessarily directed to the MTP compromises the ability of the system to accommodate future development;
  - 3.13.5 that the WWFMP is to determine the role for the NTP, and specifically whether it should continue to treat sewage or be dedicated to stormwater management, and that no studies or decisions made to date, including the MTP EA, are to be considered to have prejudged or predetermined that issue;
  - 3.13.6 that neither the conclusion of the former City of Toronto Master Plan proposing the construction of collection tunnels along the lakefront and along the Don River as solutions to wet weather flows, nor the fact that they are referenced in the City's long term capital budget, nor any preliminary conclusions of the MTP EA are to influence the evaluation of alternatives or the determination of the preferred alternative approach to the management of stormwater and CSOs in the WWFMP; and
  - 3.13.7 that the elimination of the CSO outlets and the stormwater outlet in Coatsworth Cut is a high priority and that solutions must be implemented as soon as possible without impairing the primary purpose of the MTP.
- 3.14 The completed WWFMP shall include a Pollution Prevention and Control Plan (PPCP) that meets or exceeds the requirements of Ministry of Environment Procedure F-5-5.
- 3.15 The City agrees that it will complete the WWFMP process and adopt a WWFMP in a timely fashion and implement the adopted recommendations during the planning period for this Environmental Assessment, so that the upstream benefits of the WWFMP are achieved prior to the need for any application for expansion of wastewater treatment capacity at the MTP.
- 3.16 Upon the completion of the WWFMP process and the adoption by City Council of a WWFMP, the function of providing ongoing monitoring and public input regarding the implementation of and compliance with the recommendations of the WWFMP that relate to potential impacts on the Main Treatment Plant shall be assumed by

the MTP EA Approval Implementation and Compliance Committee (ICMC). The membership of the ICMC may be supplemented by former members of the WWFMP Steering Committee in accordance with recommendations that may be made by both the WWFMP Steering Committee and the ICMC.

## **RESOLUTION #3**

### **MTP Capacity**

#### **1. Existing Approved Capacity of the Main Treatment Plant:**

The City and the other participants agree that the existing approved capacity of the MTP is defined by the following parameters and that any increase in capacity of any of these parameters can only be achieved if the City obtains approval for such expansion under the Environmental Assessment Act, the Ontario Water Resources Act and any other applicable legislation:

- 1.1 Rated capacity for secondary treatment (average): 818 megalitres/day;
- 1.2 Operational guideline for capacity for secondary treatment (peak): 1,636 megalitres/day;
- 1.3 Rated capacity for primary treatment (average): 1,120 megalitres/day;
- 1.4 Rated capacity for primary treatment (peak): 2,532 megalitres/day;
- 1.5 Hydraulic capacity of incoming sewers:
  - with Mid-Toronto Interceptor in gravity mode: 3,090 megalitres/day;
  - with Mid-Toronto Interceptor in pumped mode: 3,923 megalitres/day;
- 1.6 Maximum hydraulic capacity of existing outfall: 1,136 megalitres/day at low lake water level;
- 1.7 Maximum hydraulic capacity of proposed new outfall: 3,923 megalitres/day at high lake water level (actual approved capacity to be determined in OWRA approval process);
- 1.8 Maximum estimated solids loading to the MTP (at rated secondary capacity of 818 ML/d, assuming population growth to 2011): 253 dry tonnes/day;

- 1.9 Current estimated solids loading into the MTP (1998 flows): 193 dt/d;
- 1.10 Site Area: 40.4 hectares.

## **2. No Expansion of MTP Capacity in this EA Approval:**

- 2.1 The City agrees that the environmental assessment for the MTP shall be amended to eliminate any application for EA approval of any capacity increase at the plant, including any approval to implement capacity increases as a result of any of the contemplated five year review processes.
- 2.2 Notwithstanding any reference to the contrary in the Environmental Assessment, the City agrees that it is not seeking EA approval for any increase in the capacity of the MTP as defined by any of the above referenced parameters. All parts of the EA document should be considered to be amended accordingly.
- 2.3 The City agrees that any future application for expansion of the hydraulic capacity of the MTP shall be judged in the context of the Guiding Principles in Resolution #1 and the achievements that the City has made in reducing flows to the plant through the implementation of a Water Efficiency Plan, the implementation of the recommendations of the Wet Weather Flow Master Plan, and other source control initiatives. The City agrees that expansion of the capacity of the MTP shall be the least preferred option, if feasible source control options are available.
- 2.4 The City agrees that any future application for expansion of the solids handling capacity of the MTP shall be judged in the context of the Guiding Principles in Resolution #1 and the achievements that the City has made in reducing solids loadings to the plant through the implementation of the recommendations of the Wastewater and Water System Solids Management Master Plan.
- 2.5 The City agrees that it will amend its long term capital budget to delete any references to capital projects related to the expansion of the capacity of the MTP.

## **RESOLUTION #4**

### **Plant Optimization And Economic Issues**

The City and the other participants agree that issues relating to the following topics will be resolved by the following amendments and conditions to the Environmental Assessment:

#### **1. Plant Optimization:**

- 1.1 The City agrees, on an on-going basis, to optimize the existing operations at the MTP as identified on Table 17-2 of the EA, in accordance with the Guiding Principles set out in Resolution #1, including:
  - 1.1.1 Further reducing the waste activated sludge (WAS) stream being recycled to the primary tanks: plant optimization has reduced the amount being recycled from 190 tonnes per day to 28 tonnes per day. The goal is to reduce the amount of recycled WAS to 0;
  - 1.1.2 Reducing the centrate that is recycled to the primary tanks once the 4 new centrifuges are installed at the MTP;
  - 1.1.3 Increasing the hydraulic retention time that sludge spends in the primary digesters to meet the MOE recommendation of 15 days to achieve a more complete kill of pathogens and to improve sludge quality for beneficial use. Improvements have already been made possible because of the reduction in the quantity of sludge being recycled through the system. Further improvements can still be made; and
  - 1.1.4 Optimizing digester operation and reviewing digester technologies.

#### **2. Economic issues:**

- 2.1 The City agrees that:
  - 2.1.1 All information relating to the capital and operating costs of the MTP, the associated sewer system and the water treatment and distribution system is available to the public and will be

provided to the NLC, the ICMC, or to any of the other committees established pursuant to this mediation agreement, to satisfy reasonable requests;

2.1.2 Once per year, on a schedule that meets the normal reporting requirements of the City, the City shall provide to the NLC and to the ICMC a summary financial report relating to the Water and Wastewater Systems, including:

- Current year capital and operating costs;
- Capital and operating budgets;
- Water and Sewer rates and how they were derived; and
- Such detailed breakdown of costs and revenue and other information as may be reasonably available to the City and that is requested by either committee.

2.1.3 The City agrees that its decisions regarding future capital and operating expenditures related to the water and wastewater treatment systems, including the MTP should not be made only on the basis of economic considerations. While economic considerations are important, the City recognizes that hidden costs and benefits are often not reflected in economic analyses. The City agrees that such future decisions will be made on a comprehensive basis, taking into account the importance of public health and safety, the protection and enhancement of the natural environment, the protection and enhancement of the social environment and the Guiding Principles contained in Resolution #1 to this Mediation Agreement and shall be documented as appropriate.

### 3. Energy Optimization:

- 3.1 The City agrees that it will optimize energy use at the plant, including the utilization of biogas, within the parameters of this Mediation Agreement, including the Guiding Principles in Resolution #1.
- 3.2 The City agrees that it will consult the NLC and the ICMC regarding any cogeneration proposals at the MTP Site.



## **RESOLUTION #5**

### **Biosolids Utilization Issues**

The City and the other participants to this mediation agree that the issues relating to biosolids utilization will be resolved by the following initiatives, the implementation of which shall be guided by the Guiding Principles in Resolution #1:

#### **1. Amendments to the Environmental Assessment Document:**

1.1 The City agrees that the Environmental Assessment document shall be amended in accordance with the Biosolids Addendum, attached hereto as Schedule A to this Resolution, satisfying the following purposes:

- 1.1.1 updating and amending Section 13 of the EA and clarifying the preferred alternative for biosolids management;
- 1.1.2 emphasising the central role that public input played in the decision to end incineration of biosolids and move to beneficial uses;
- 1.1.3 expanding the discussion of the public consultation process that followed Council's decision to end incineration, including the successful BMSC and IRC Committees;
- 1.1.4 documenting the City's commitments to undertake a long-term market study, a short-term Request for Proposals (RFP) for interim contingency options; and a comprehensive Wastewater and Water System Solids Management Master Plan, as set out more fully in this Resolution;
- 1.1.5 clarifying the termination of incineration at the MTP by December 31, 2000 and the steps that will be taken to decommission the existing incinerators; and
- 1.1.6 outlining the process that will be followed to establish appropriate odour controls at the MTP to replace the odour control function presently carried out by the incinerators.

#### **2. Termination of Incineration:**

2.1 The City recognizes that there are site specific factors that make incineration of biosolids at the MTP a less desirable option than

- beneficial uses such as utilization on agricultural lands, forested lands or mine tailing sites, or for land reclamation purposes;
- 2.2 The City agrees that it will terminate the incineration of biosolids at the MTP by a target date of December 31, 2000 and will by that date have implemented all necessary steps to utilize beneficial alternatives in accordance with the Biosolids Addendum;
- 2.3 The City agrees that the following sentences from page 13-35 of the MTP EA are withdrawn and replaced by the Biosolids Addendum:
- "If Metro Works cannot satisfy its biosolids management requirements through the alternative biosolids products, it may need to fall back on incineration. If this is the case, the existing incinerators should be replaced with state-of-the-art facilities equipped with the most up-to-date control devices. This should be considered a contingency, not a preferred option."*
- 2.4 The City agrees to surrender all such Certificates of Approval to the Ministry of the Environment immediately upon the discontinuation of incineration on or about December 31, 2000 and to take appropriate steps forthwith thereafter to physically disable and decommission all of the existing incinerators at the MTP;
- 2.5 The City agrees that any other future use of the existing incinerators, or their replacement with other incinerators, will only occur if the City has conducted an individual Environmental Assessment, including a comprehensive analysis and comparison of all alternatives, and has obtained approval under the Environmental Assessment Act, the Environmental Protection Act and the Ontario Water Resources Act, as applicable; and
- 2.6 The City agrees that it would conduct a health study of the population in the vicinity of the MTP, the scope of which it would determine in consultation with the Medical Officer of Health and the Neighbourhood Liaison Committee (NLC), if it ever proposed the reintroduction of incineration of biosolids or the introduction of any other waste incineration technology at or near the MTP site.

### **3. Long-term Market Study for Beneficial Uses of MTP Biosolids:**

- 3.1 The City agrees that it will, immediately upon the ratification of this Mediation Agreement, commence and complete a comprehensive study of long-term market opportunities for beneficial uses of MTP biosolids. This study shall be carried out by an independent qualified consultant who shall report to the City through a multi-stakeholder committee modeled on, and including members from, the former Biosolids Multi-Stakeholder Committee (BMSC). On an interim basis, until such a committee can be established, the ICMC, supplemented appropriately with other stakeholders, may provide this function.
- 3.2 The purpose of the study shall be to identify present and future markets and potential markets for beneficial use of MTP Biosolids and to make recommendations regarding solids quality, management, marketing and other matters to maximize the potential of MTP solids to satisfy those opportunities. The study shall include a comprehensive review of potential markets for the beneficial utilization of biosolids on non-agricultural lands, such as forested lands, mine sites and remediation opportunities.
- 3.3 The City agrees that the long-term market study will be completed as soon as possible in order to provide input to the Wastewater and Water System Solids Management Master Plan process described below. The City's determination of which future market opportunities to pursue will be guided by the recommendations of the Wastewater and Water System Solids Management Master Plan.

### **4. Request for Proposals: Interim Contingency Options**

- 4.1 The City agrees that it will, immediately upon the ratification of this Mediation Agreement, seek proposals from the private sector for interim contingency options for beneficial biosolids utilization to ensure that beneficial options are available immediately in the event that either of the two biosolids contractors is unable to meet its commitments at any time. This RFP process shall be overseen by a multi-stakeholder committee modeled on, and including members from, the former Biosolids Multi-Stakeholder Committee (BMSC)

and the results shall be reported to that committee for its recommendations. On an interim basis, until such a committee can be established, the ICMC, supplemented appropriately with other stakeholders, may provide this function.

**5. Wastewater and Water System Solids Management Master Plan:**

- 5.1 The City agrees that it will establish and implement a comprehensive Wastewater and Water System Solids Management Master Plan, to include a systematic analysis of all alternatives for the management of all sludges/solids in the City's wastewater and water systems.
- 5.2 The City agrees to undertake the development of the Master Plan in accordance with the Class Environmental Assessment for Municipal Water and Wastewater Projects, satisfying the first two phases in the Planning & Design Process.
- 5.3 The public consultation component of the Master Plan EA shall be at least as comprehensive and as inclusive as if the Master Plan were being conducted as an individual Environmental Assessment.
- 5.4 A Steering Committee will be established, representative of all stakeholders, totaling approximately 20 to 30 persons, as follows:
  - 5.4.1 appropriate staff from the City, provincial ministries and other relevant public agencies;
  - 5.4.2 at least 2 of the public members from the MTP EA Implementation and Compliance Monitoring Committee (ICMC) and 2 alternate members who may attend all meetings (all ICMC representatives to be designated by the ICMC);
  - 5.4.3 interested participants to this mediation;
  - 5.4.4 interested members of the former BMSC;
  - 5.4.5 interested members of the MTP EA Public Consultation Committee;
  - 5.4.6 interested stakeholders from the vicinity of other sewage treatment or water filtration plants;
  - 5.4.7 other interested stakeholders; and
  - 5.4.8 such members of City Council as may wish to participate.

- 5.5 The membership of the Steering Committee will recognize and reflect the central interest of stakeholders in the vicinity of existing treatment plants and other locations where solids may be generated in the system, as well as the diversity of stakeholder interests across the entire City and will provide a mechanism for broad stakeholder consultation.
- 5.6 The Steering Committee shall be modeled on the former Biosolids Multi-Stakeholder Committee (BMSC). Whenever possible, the Steering Committee will make its decisions and recommendations by consensus.
- 5.7 The City agrees that the Steering Committee will review and provide recommendations on all aspects of the study, including the preparation of Terms of Reference and that the consultant hired to complete the Master Plan will report to and be responsible to this Steering Committee, and that this Steering Committee will make its recommendations to the Works and Utilities Committee through the Commissioner of Works and Emergency Services.
- 5.8 The City agrees that the establishment and implementation of the Wastewater and Water System Solids Management Master Plan shall be guided by the Guiding Principles set out in Resolution #1.
- 5.9 The specific objectives that are intended to be achieved through this initiative include:
- 5.9.1 to ensure that opportunities for long-term markets for biosolids are fully investigated;
  - 5.9.2 to ensure that the quality of biosolids at the City's sewage treatment plants is maintained and continually improved to ensure compliance with present and future criteria for beneficial use; and
  - 5.9.3 to ensure that solids generated in the water and wastewater systems in the City are managed in a beneficial manner, where possible.
- 5.10 The City agrees that the following issues will be analysed and options for addressing them, other than at the MTP, will be assessed as part of the Wastewater and Water System Solids Management Master Plan:

- 5.10.1 alternatives for the management of Humber, North Toronto and Highland Creek sewage sludges;
  - 5.10.2 alternatives for the management of CSO Sludges (quantities to be determined as part of WWFMP);
  - 5.10.3 alternatives for the management of all Water Filtration Plant Solids, including a full reexamination of the Class EA presently being conducted regarding the solids produced at the Harris Filtration Plant; and
  - 5.10.4 alternatives for the management of Stormwater Solids (quantities to be determined as part of WWFMP).
- 5.11 The City agrees that it will provide a specific direction in the RFP for the preparation of the Wastewater and Water System Solids Management Master Plan that:
- 5.11.1 the consultant is to conduct the Master Plan Study in accordance with the provisions of this Mediation Agreement;
  - 5.11.2 the study is to include a comprehensive consideration of all alternatives, including options for minimizing solids and the decentralized management of sludges/solids; and
  - 5.11.3 the study is to include a full public consultation program equivalent to one that would form part of an individual environmental assessment.
- 5.12 The City will conduct the Master Plan study and adopt and implement a Wastewater and Water System Solids Management Master Plan generally in accordance with the draft Public Consultation Plan and Schedule attached hereto.
- 5.13 Upon the completion of the Wastewater and Water System Solids Management Master Plan process and the adoption by City Council of such a Master Plan, the function of providing ongoing monitoring and public input regarding the implementation of and compliance with the recommendations of the Master Plan, insofar as they relate to potential impacts on the Main Treatment Plant, shall be assumed by the MTP EA Approval Implementation and Compliance Committee (ICMC). The membership of the ICMC may be supplemented by

former members of the Master Plan Steering Committee in accordance with recommendations that may be made by both the Master Plan Steering Committee and the ICMC.

## **SCHEDULE A TO RESOLUTION # 5**

### **Main Treatment Plant Environmental Assessment – Addendum: Biosolids Management Alternatives, Section 13.**

**March 8, 1999**

#### **1.0 Background**

On September 24, 1997, the former Metro Toronto Council endorsed the conclusions of the Main Treatment Plant Environmental Assessment (the “MTP EA”) and authorized its submission to the Ministry of the Environment (“MOE”) for approval. On December 17, 1997, an application was submitted to the Ministry of the Environment for Environmental Assessment Act Approval for the Municipality of Metropolitan Toronto’s MTP EA, in accordance with the Environmental Assessment Act.

#### **2.0 Biosolids**

The purpose of the MTP EA is to identify a preferred undertaking for:

- ◆ Meeting future wastewater needs in the Main Treatment Plant service area to the year 2011; and
- ◆ Improving the effectiveness of the Main Treatment Plant at reducing environmental impacts.

Accordingly, a major component of the work undertaken during the course of the MTP EA focussed on the management of biosolids produced at the MTP. (See Section 13 of the MTP EA document).

An assessment of biosolids management alternatives was undertaken to:

- ◆ Determine the preferred strategy for meeting future solids treatment needs in the MTP service area, and
- ◆ Address public concerns regarding incineration.

The beneficial use of biosolids is identified in the MTP EA document as the preferred alternative for sludge management, in place of incineration (the current disposal method for the major portion of biosolids produced at the MTP).



### **3.0 Development of Pilots**

The MTP EA recommended that four pilots take place in order to demonstrate the feasibility of the following four beneficial use alternatives:

- ◆ Alkaline stabilized product;
- ◆ Dewatered product for application to agricultural land;
- ◆ Composted product; and
- ◆ Thermally dried product (pelletization).

Section 13 of the MTP EA, “Biosolids Management Alternatives” provides a preliminary account of the analysis process related to biosolids management. It also includes information regarding: approach to assessment; identification, screening, assessment, and evaluation of alternatives; and selection of a preferred alternative. Incineration was considered a contingency and not the preferred alternative.

Section 13 also provides an account of two demonstration projects initiated during the course of the MTP EA.

### **4.0 Pilot Projects**

During the course of the MTP EA two demonstration projects were undertaken through a parallel planning process which was outside the MTP EA public consultation process. The purpose of the demonstration projects was to assess the viability of technically producing a biosolids product suitable for beneficial use and acceptance of the marketplace to the introduction of biosolids from Toronto.

A Request for Proposals for Alternative Methods of Biosolids Management was issued on December 23, 1993. From the fourteen proposals received two 10,000 tonne per annum demonstration projects were selected. One contract was awarded to Terratec Environmental Limited (“Terratec”) to transport biosolids by truck and directly apply the dewatered sludge to agricultural land in Ontario.

The second contract was awarded to Harbour Remediation & Transfer Inc. (“HR&T”). Following transport by truck of dewatered sludge to a processing site located in the Toronto portland area, HR&T treated the sludge using a Lime Stabilization/EnVessel Pasteurization process. It was then transported by rail to Sudbury, Ontario, where it was utilized to rehabilitate mine tailings ponds belonging to Falconbridge Limited

While the demonstration project with Terratec has produced favourable results, the project with HR&T has experienced operational difficulties, specifically with odour control at the processing site in the portlands area. As a result, the HR&T project is not operational.

## **5.0 Amalgamation**

On January 1, 1998 Metro Toronto and the six Area Municipalities comprising Metro Toronto were amalgamated into the new City of Toronto. The new Council modified the approach to biosolids management set out in the MTP EA. Following a series of presentations by industry representatives and input and information provided by community groups and citizens to Toronto's Works and Utilities Committee on May 20, 1998, the new Toronto City Council embarked on a Request for Proposals process to directly engage the biosolids beneficial use industry to provide options for beneficial use. The goal was set to end incineration at the MTP no later than December 31, 2000 by introducing alternative beneficial technologies.

## **6.0 RFP Process**

Following Council's policy direction in the early summer of 1998, a project team consisting of staff, external consultants, and representatives of the public was assembled to prepare and issue an RFP and analyze the results, and carry recommendations for the award of a contract(s) through the Commissioner of Works and Emergency Services to City Council's Works and Utilities Committee. This process was undertaken with significant public involvement.

RV Anderson Consultants was retained as the principle consultant. An Independent Review Committee was assembled to provide an ongoing peer review. Public input was facilitated through the Biosolids Multi-stakeholder Committee (the "BMSC"), which was closely engaged throughout the process.

The role of the BMSC was to help chart the biosolids program. Specific undertakings and activities included:

- ◆ developing the Expression of Interest call for a consultant and the subsequent review of consultant proposals;
- ◆ input into the selection criteria for both the Expression of Interest call and the subsequent Request for Proposals;
- ◆ review of selection process for biosolids contractors;
- ◆ toured biosolids facilities (two public members toured biosolids facilities in Canada, the United States and Europe); and
- ◆ two public representatives participated on the Independent Review Committee

The BMSC was comprised of the following parties: four City Councillors; a fifth City Councillor selected as Chair; eight representatives from the MTP Neighbourhood Liaison Committee; four representatives from environmental groups; two industry representatives; two union representatives; and an independent meeting facilitator. The BMSC is now retired.

The Independent Review Committee (the "IRC") comprised six biosolids experts from universities, government and U.S. cities, in addition to two public representatives from

the BMSC. The IRC was chaired by the Chair of Toronto City Council's Works and Utilities Committee.

Ongoing issues of public interest will be addressed through the MTP Neighbourhood Liaison Committee, and other committees as identified by the mediation process.

## **7.0 Outcome**

Through the RFP process for engagement of industry for beneficial use technologies two contracts have been recommended. One is with Terratec to manage 25,000 tonnes per annum for agricultural land application. The other is with U.S. Filter Canada Inc. ("USF") to construct a pelletization plant at the MTP.

Terratec will be responsible for operations and marketing under their contract. USF will be responsible for plant construction, training of City operation staff, and for product marketing under their contract.

## **8.0 Impact on Operations at the MTP**

Currently, the incineration of sludge at the MTP also facilitates or assists other operational aspects of the plant operation. Specifically, the incineration process is integral to:

- i) the odour control process at the plant (i.e. combustion of organic odour causing compounds); and
- ii) the plant's heating system (i.e. recovery of waste heat that is directed to heating plant boilers.

Therefore, when the incinerators are closed, new odour control equipment and modifications to the heating system will be needed. In addition, a new truck loading facility will be needed to process larger volumes of biosolids that will be transported off-site. The current truck loading facility, which was designed for the demonstration projects, does not have the necessary throughput capacity to manage the substantially higher volume of biosolids to be managed under a long-term contract by Terratec.

The engagement of the marketplace will also require construction of new facilities both on- and off-site to manage biosolids in a beneficial use manner.

## **9.0 Approvals**

The re-design of the MTP's heating and odour control system and construction of a new loading facility can be approved as Schedule "A" Class EAs, under the Class Environmental Assessment for Municipal Water and Wastewater Projects, June 1993 (Municipal Engineers Association), as they are replacing existing facilities.

The private sector proponents are responsible (under contract provisions) for acquiring the associated approvals and certificates of approval for on- and off-site facilities. These approvals will be sought through appropriate Class EAs, by the private sector proponents.

## **10.0 Future Activities**

In order to ensure the success of the beneficial use program initiated at the Main Treatment Plant, the City will be undertaking a Water and Wastewater Solids Management Master Plan. This plan will establish the short and long term requirements to ensure a successful use program. The study will be undertaken with comprehensive public consultation similar to that which had been used for the RFP process which selected Terratec and USF.

Studies will be undertaken to determine the markets for biosolids, as well as establish contingency and back-up requirements for the existing and future programs. The Master Plan will review and determine the methods and location for the treatment processes required for a successful beneficial use program. The plan will also provide for the opportunities to look at other technologies, and establish methods and procedures for testing these technologies.

With the development of this plan, the City will discontinue the use of the incinerator and will not, as previously described on p. 13-35 of the MTP EA document “fall back on incineration” even if we use state-of-the-art facilities; rather, we will develop all possible contingencies for the beneficial use program. The City will take steps to remove the incinerators from active duty, and will surrender all Certificates of Approval dealing with the operation of the incinerators.

With regard to the quantities of solids which the Main Treatment Plant will receive during the planning period of 2011, we have reviewed the mass balances which are shown on pages 2–32, 3–8, and 3-9 of the EA document. The sampling and flow monitoring improvements have led to adjustments in the mass balances. Attached are the mass balances which represent the current situation (1998); the situation which represents the rated capacity of 818 ML per day and the situation which represents the capacity of the plant for the planning period of 2011.

The present situation shows a flow of 670 ML per day, and inlet concentration of 289 mg/L, giving a total solids loading coming into the plant of 193 dry tonnes per day. This figure includes the present loading from the Humber Treatment Plant of 60.0 dry tonnes per day and 3.0 dry tonnes per day from the North Toronto Treatment Plant. The solids loading for the rated capacity of the plant, 818 ML per day, is 233 dry tonnes per day based on 70.0 dry tonnes per day from the Humber Treatment Plant and 3.0 dry tonnes per day from the North Toronto Treatment Plant and 160 dry tonnes per day from the sanitary sewage from the Main Treatment Plant service area. The solids loading for the planning period ending in 2011 will be 253 dry tonnes per day. This figure includes 70 dry tonnes per day from the Humber Treatment Plant, which represents the solids which must be disposed of with the Humber Plant at its rated capacity of 473 ML per day, 3.0

dry tonnes per day from the North Toronto Treatment Plant and 180 dry tonnes per day that would come with the sanitary sewage flow. The solids that would come with the sanitary sewage flow will increase because of the increase in population. The liquid flow of sewage will not increase because of the effect of water efficiency, but the solids will increase.

As previously stated, we will be revisiting and studying, as part of the Master Plan, how and where to deal with the Humber Treatment Plant biosolids. We will not make any decisions to expand the solids handling capacities at the Main Treatment Plant until we complete the Water and Wastewater Solids Master Plan.

## **11.0 Summary**

This addendum has identified that the new City of Toronto Council has engaged the biosolids beneficial use industry to provide options for the beneficial use of biosolids produced at the MTP. Contracts are underway with Terratec and USF. Terratec will be responsible for the operations and marketing for an agricultural land application program. USF will be responsible for the construction of a biosolids pelletization plant, training of City operation staff, and for product marketing under their contract.

Based on information gained through the two demonstration projects and input from industry representatives and members of the public, Toronto Councillors have gained a level of confidence to engage industry to provide a 100 percent biosolids beneficial use program by December 31, 2000 (scheduled target date), in conjunction with City staff. This direction supercedes the concept of completing four demonstration projects and considering incineration as a contingency as initially described in the MTP EA.

This addendum has also provided an account of the operational impacts of closing the remaining incinerators at the MTP and identified the new capital works projects that will be needed by the private sector proponents to fulfill their contracts and implement 100 percent beneficial use of biosolids. These activities can be undertaken through Class EAs.

The City of Toronto is therefore amending the MTP EA to the effect that we will not engage additional demonstration projects, as described in the MTP EA, but proceed to the direct engagement of the marketplace to facilitate, in conjunction with plant operations, a 100 percent biosolids beneficial use program. The EA is also amended to reflect the fact that incineration will no longer be considered a contingency. (We will be looking at demonstration of other technologies and markets in the future).

The solids loading to the plant will increase during the planning period; however, the Water and Wastewater Solids Master Plan may redistribute the solids currently arriving at the Main Treatment Plant. Therefore, we will not seek any increase in our solids handling capacity until the completion of this Plan.

In the opinion of the City this modification of approach does not require specific approval under the EA Act in order to proceed, given the opportunity for approval under the Class EA process and the precedents set by other large urban municipalities in Ontario (e.g. Regional Municipality of Hamilton-Wentworth). However, the City is maintaining this component in the MTP EA to fulfill the objectives of the MTP EA.

Appendices to Biosolids Addendum:

- 1 Technical Memorandum dated March 11, 1999 from CG&S;
- 2 Table 1: Input Data (Assumptions);
- 3 Figure A;
- 4 Figure B;
- 5 Figure C; and
- 6 Figure D.

Note: The mediation participants have not reviewed or agreed to the assumptions set out in the attached Technical Memorandum or in Table 1. Should any issues arise relating to these, they reserve their rights to disagree with them.

TECHNICAL MEMORANDUM

**CG&S**

## Revised (as of March 11, 1999) Solids Mass Balances at the MTP

PREPARED FOR: Bob Pickett, City of Toronto  
Vitek Wilewski, City of Toronto

PREPARED BY: Laurie Boyce and Peter Burrowes

DATE: March 11, 1999

As requested on March 5, 1999, we have revised the solids mass balances at the Main Treatment Plant (MTP) under existing and future flow scenarios.

The following four flow scenarios were considered: existing, design, and future (with and without water conservation). Table 1 outlines the revised input data used for each of these scenarios, while Figures A through D present the resulting mass balances. The hydraulic retention time in the digesters under each scenario is as follows:

- Scenario A: Existing (1998): 12.7 days,
- Scenario B: Design (818 MLD): 15.1 days,
- Scenario C: Future (920 MLD): 13.8 days, and
- Scenario D: Future with Water Conservation (818 MLD): 13.8 days

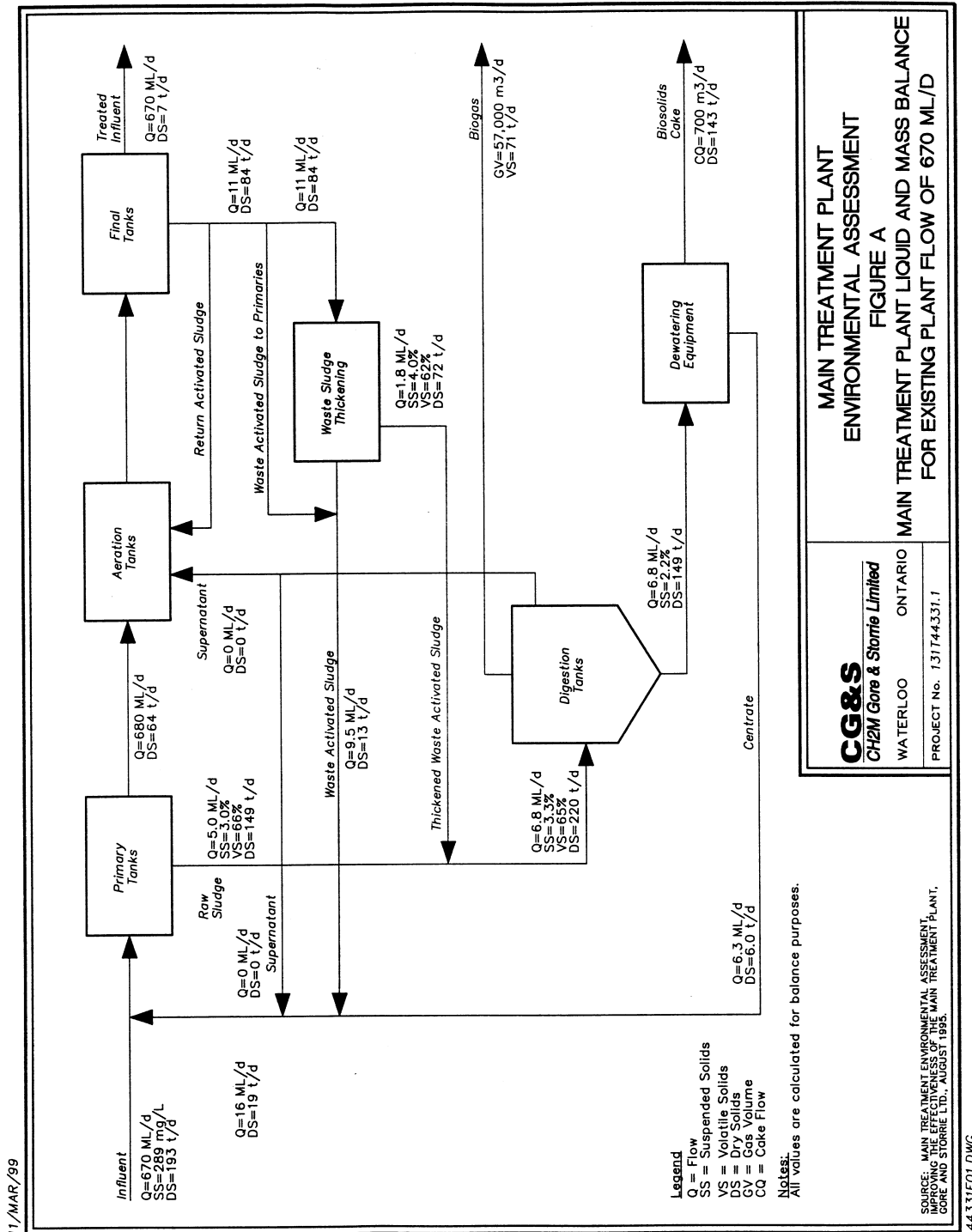
**TABLE 1: Revised (per discussions with W. Wilewski March 5, 1999) Input Data Used in Various Flow Scenarios**

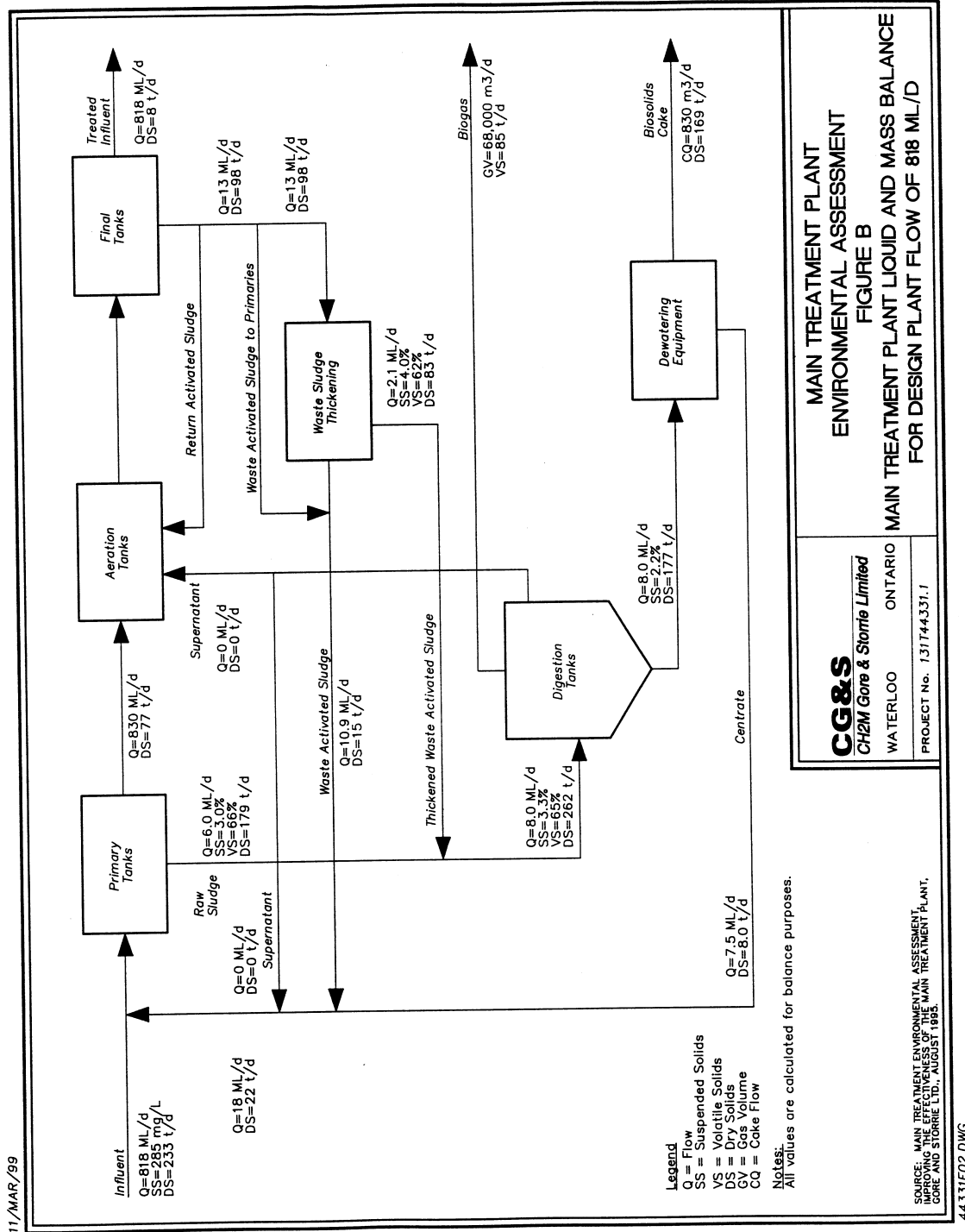
INPUT DATA (ASSUMPTIONS)	SCENARIOS			
	A. Existing (1998)	B. Design (818 MLD)	C. Future (920 MLD)	D. Future (With Water Conservation)
<b>Influent</b>				
Flow Q (MLD)	670	818	920	818
Concentration SS (mg/l)	289	285	275	309
Volume (%)	67	67	67	67
Concentration BOD <sub>5</sub> (mg/l)	230	200	200	200
Concentration TP (mg/l)	5.26	5.26	5.26	5.26
<b>Effluent</b>				
Concentration SS (mg/l)	10	10	10	10
Concentration BOD <sub>5</sub> (mg/l)	10	10	10	10
Concentration TP (mg/l)	0.59	.59	.59	.59
<b>Primary Treatment</b>				
Removal Efficiency (%)	70	70	70	70
Underflow Concentration (%)	3	3	3	3
BOD <sub>5</sub> Removal (%)	30	30	30	30
P Removal (%)	10	10	10	10
<b>Secondary Treatment</b>				
Yield (kg SS/kg BOD)	0.70	0.70	0.70	0.70
Decay Factor (days <sup>-1</sup> )	0.40	0.40	0.40	0.40
SRT (days)	4	4	4	4
Underflow Conversion (mg/l)	7,500	7,500	7,500	7,500
Volume (%)	70	70	70	70
Chemical Dosage (/kg P removal)	1.27	1.27	1.27	1.27
MW of Chemical	56	56	56	56
MW of P Sludge	151	151	151	151
Return Rate (% of Plant Flow)	50	50	50	50
Return (VSS)	62	62	62	62
Waste Rate (% of WAST)	100	100	100	100
<b>WAS Thickening</b>				

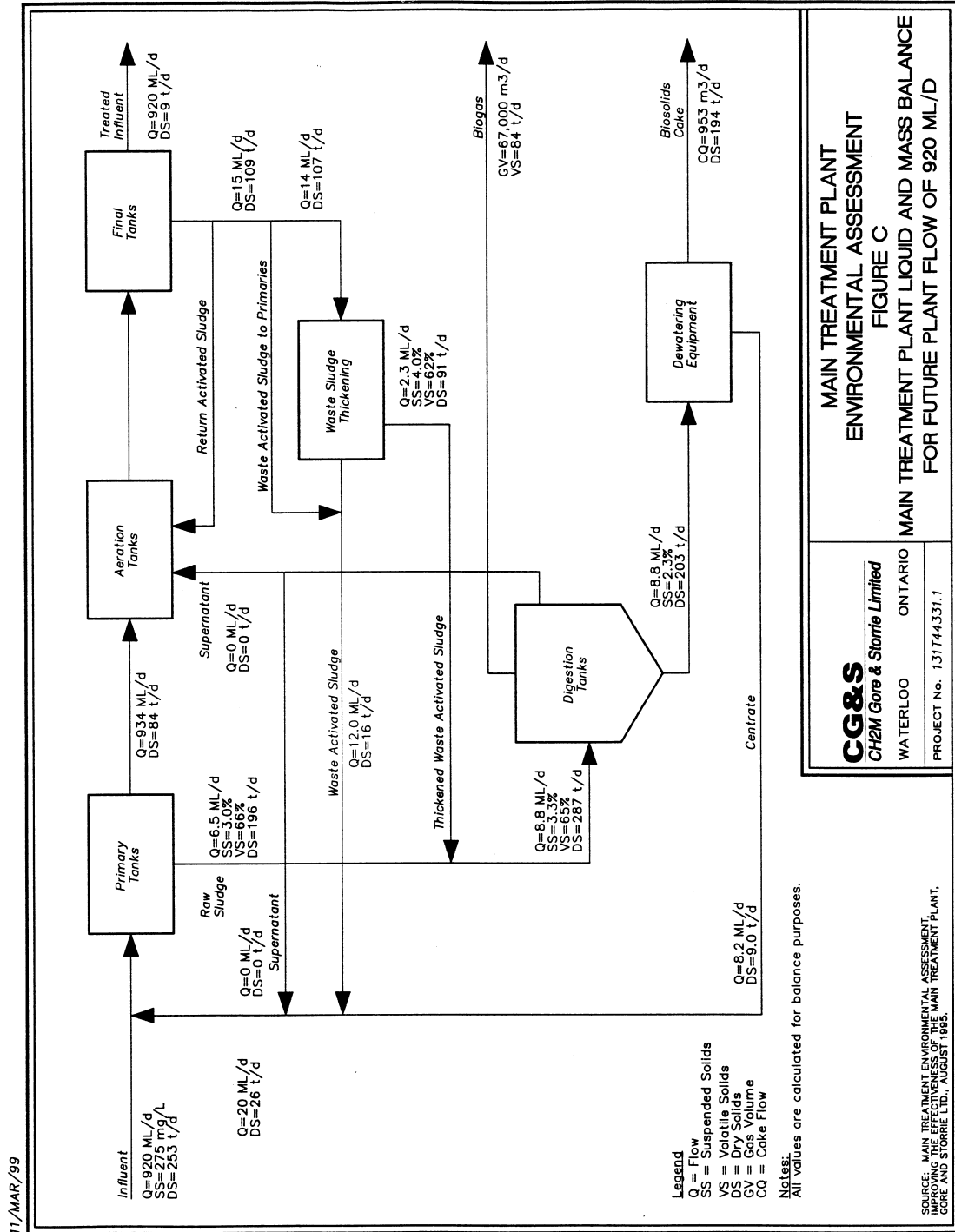


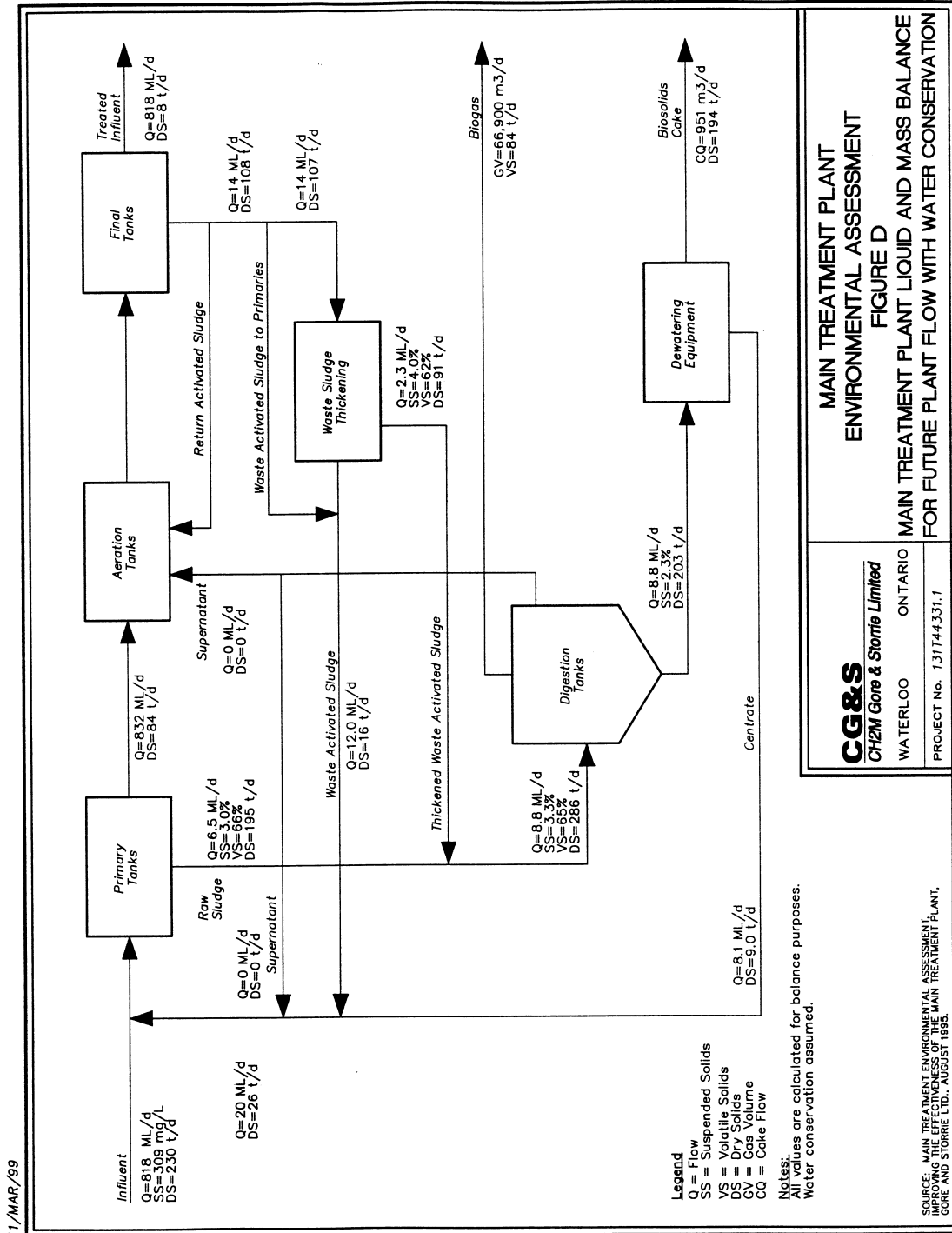
REVISED (AS OF MARCH 11, 1999) SOLIDS MASS BALANCES AT THE MTP

Flow Rate (MLD)	14.3	14.3	14.3	14.3
Removal Efficiency (%)	85	85	85	85
Sludge Concentration (%)	4	4	4	4
Effluent Concentration (mg/l)	56	56	56	56
<b>Anaerobic Digestion</b>				
Volatile Destruction (%)	48	48	48	48
Gas Conversion (m <sup>3</sup> /kg Vol. Des)	0.80	0.80	0.80	0.80
Supernatant (% of theor. Raw sludge volume)	0	0	0	0
Effective Hydraulic Volume (m <sup>3</sup> ) Digesters 5 to 12	7,383	7,383	7,383	7,383
Quantity of Digesters	8	8	8	8
Effective Hydraulic Volume (m <sup>3</sup> ) Digesters 13 to 16 and 19 to 22	8,873	8,873	8,873	8,873
Quantity of Digesters	4	8	8	8
<b>Dewatering</b>				
Removal Efficiency (%)	96	96	96	96
Sludge Concentration (%)	30	30	30	30
Sludge Density (kg/m <sup>3</sup> )	680	680	680	680









## **RESOLUTION #6**

### **Tertiary Treatment**

The issues relating to the potential for tertiary treatment at the MTP will be resolved by the following amendments to the Environmental Assessment document:

1. That the City is seeking EAA approval in this application for tertiary treatment of the secondary effluent, although it does not intend to seek other necessary approvals for specific tertiary treatment technologies or otherwise to implement this aspect of this EAA approval unless either:
  - (a) the MOE requirements for effluent quality change and make it necessary; or
  - (b) the implementation of tertiary treatment of the effluent is necessary to meet the MOE's requirements for UV disinfection of the effluent under bypass conditions.
2. That the City agrees to conduct a cost-benefit analysis of different treatment options, in accordance with the Guiding Principles in Resolution #1, with full public consultation including the NLC and the ICMC, prior to seeking approval for and implementing any particular tertiary treatment technology.

## **RESOLUTION #7**

### **Ultra Violet Disinfection**

The City and the other participants agree that the issues relating to UV Disinfection will be resolved by the following amendments and conditions to the environmental assessment document, the implementation of which shall be guided by the Guiding Principles in Resolution #1:

1. that the City is seeking EA approval for a UV disinfection system and not an approval to continue to use chlorine as a disinfectant at the MTP.
2. that the City will discontinue the use of Chlorine as a disinfectant of the effluent that is discharged from the MTP and decommission and remove the existing chlorine disinfection system as soon as the UV disinfection system is operational. It is not intended at this time that this will affect the City's use of hypochlorite to disinfect effluent that is used for internal purposes (such as cooling water or tank cleaning) at the plant.
3. that the City is committed to the disinfection of secondary effluent by UV radiation, even if it is necessary to separate by-pass effluent from secondary effluent to achieve this. Once the UV system is operational, the disinfection of secondary effluent will be accomplished using the UV disinfection system and not by using chlorination/dechlorination.
4. that once the UV system is operational, the disinfection of effluent during by-pass conditions will be accomplished using the UV disinfection system and not by using chlorination/dechlorination. The City's agreement on this point is conditional on the need to revisit this issue if it is unable to satisfy MOE disinfection requirements for the bypass effluent. The City will use its best efforts to satisfy or to modify MOE requirements for the disinfection of bypass effluent by UV disinfection and agrees to the following steps in that regard:
  - i) the City agrees to have the UV Design Optimization Study (formerly known as Phase III of the Pilot Study) examine the issues surrounding the treatability of the bypass effluent and to have this issue included in the mandate of the *"EA Approval Implementation and Compliance Monitoring Committee"*

(ICMC) to be established pursuant to Resolution #10 of this Mediation Agreement. The City will review what would have to be done to achieve an acceptable level of disinfection by UV, including systemic solutions, if necessary.

- ii) the City will circulate draft Terms of Reference for the UV Design Optimization Study to all interested participants of this mediation process for their review and comment, before finalizing. A meeting will be set up with Trojan to which all interested participants of this mediation will be invited, to ensure that Trojan understands the importance of optimizing the design to treat bypass effluent. Members of the Main Treatment Plant Neighbourhood Liaison Committee should be invited to attend this meeting.
- iii) should the Study conclude that UV disinfection of the bypass effluent would not be capable of meeting the level of disinfection required by the MOE, the City will consider solutions in the following order of priority. Solutions may include any combinations of the non-chlorination/dechlorination options (items 1 to 6) below:
  - 1. modifications to the UV system;
  - 2. modifications to the MTP (e.g. screening, grit removal, tertiary treatment) to improve the treatability of bypass effluent by UV;
  - 3. modifications to the collection system (eg. separating out the Humber sludges, implementation of a decentralized stormwater/wet weather plan and implementation of a new sewer use by-law) to minimize or eliminate the incidences of bypasses and/or to improve treatability;
  - 4. separation of the secondary and by-pass effluent streams to improve the ability to monitor and improve the treatability of the bypass effluent by UV;
  - 5. modifications to the MOE requirements to enable the City to utilize UV radiation to disinfect the bypass effluent;
  - 6. other disinfection options; and
  - 7. chlorination/dechlorination.



5. that the City will use best efforts to implement UV disinfection at the MTP as soon as possible in accordance with Implementation Plan and Schedule “A” attached hereto. In the event that it is determined that it is not feasible to implement UV disinfection at the MTP without the prior construction of a new outfall pipe, the City will use best efforts to achieve Implementation Plan and Schedule “B” attached hereto.
6. that the City will establish the *EA Approval Implementation and Compliance Monitoring Committee* (ICMC) immediately upon the approval of this EA in accordance with the provisions of Resolution #10 of this Mediation Agreement.
7. that the City will agree to an amendment of the EA to include the addendum attached to this Resolution, documenting more fully the reasons why ultraviolet irradiation is superior to chlorination/dechlorination for disinfection of the effluent and why the use of chlorine is therefore being discontinued.
8. that the City will investigate and, if any are feasible, implement interim solutions to minimize the use of chlorine on bypass effluent during the implementation of the UV system. This topic is to be added to the mandate of the Implementation and Compliance Monitoring Committee (ICMC).

## UV IMPLEMENTATION PLAN AND SCHEDULE “A”

ESTIMATED DATE	PLANNED ACTION
Spring 1999	UV Design Optimization Study (12 months) commences *
Fall 1999	EA Approval received *
Spring 2000	UV Design Optimization Study completed *
Summer 2000	UV vendor evaluation commences.
Fall 2000	Final Report on UV Design Optimization Study *
Winter 2001	UV vendor evaluation completed. Design and approval process for UV System commences. *
Summer 2001	Application for OWRA approval submitted to MOE *
Winter 2002	OWRA Approval received for UV system
Spring 2002	Tendering process for UV system *
Summer 2002	Construction of UV system commences
Fall 2003	Construction of UV system completed, fully commissioned and operational. Chlorine system decommissioned and use of chlorine as disinfectant at MTP discontinued.

\* Meetings of the ICMC are to be scheduled by the Committee. Asterisks indicate key points in the Implementation Plan where Committee Meetings would be anticipated in advance of key decisions or to receive information as it comes available. Generally speaking, the Committee should meet at least once each season or as necessary to monitor progress on this issue.

## UV IMPLEMENTATION PLAN AND SCHEDULE “B”

ESTIMATED DATE	PLANNED ACTION
Spring 1999	UV Design Optimization Study (12 months) commences *
Fall 1999	EA Approval received *
Winter 2000	Design and approval process for new Outfall Pipe commences
Spring 2000	UV Design Optimization Study completed *
Summer 2000	UV vendor evaluation commences.
Fall 2000	Final Report on UV Design Optimization Study *
Winter 2001	UV vendor evaluation completed. Design and approval process for UV System commences. Approvals received for new Outfall Pipe.
Spring 2001	Tendering process for new Outfall Pipe *
Summer 2001	Application for OWRA Approval of UV System submitted to MOE. Construction of new Outfall Pipe commences. *
Winter 2002	OWRA Approval received for UV system
Spring 2002	Tendering process for UV system *
Summer 2002	Construction of UV system commences
Summer 2005	Construction of Outfall and UV system completed. Outfall and UV system fully commissioned and operational. Chlorine system decommissioned and use of chlorine as disinfectant at MTP discontinued.

\* Meetings of the ICMC are to be scheduled by the Committee. Asterisks indicate key points in the Implementation Plan where Committee Meetings would be anticipated in advance of key decisions or to receive information as it comes available. Generally speaking, the Committee should meet at least once each season until construction commences and thereafter once or twice a year or as necessary to monitor progress.

## Addendum to MTP EA Regarding Disinfection of Plant Effluent

Chapter 14, pages 14-12 to 14-14 of the Environmental Assessment are supplemented by this Addendum. Where there is any conflict between this addendum and the original text, this addendum shall govern.

As part of the Main Treatment Plant Environmental Assessment (MTP EA), a detailed study was undertaken to assess methods of disinfecting the plant discharges. Twelve disinfection alternatives were identified:

chlorination	bromine chloride
chlorination/dechlorination	gamma radiation
hypochlorination	wetlands
hypochlorination/dechlorination	solar aquatics
ozonation	chlorine dioxide
ultraviolet irradiation	do nothing

The alternatives were subject to an initial screening based on a review of their advantages and disadvantages, the circumstances under which they are applicable and other screening criteria such as practicality, performance compatibility with existing infrastructure and cost.

Five disinfection alternatives (Bromine Chloride, Gamma Radiation, Wetlands, Solar Aquatics, and Chloride Dioxide) were screened out in the initial assessment. The seven remaining alternatives were then subject to a detailed assessment looking at such items as performance, effectiveness, energy use, cost, impact on natural environment, risk to community health and safety, risk to occupational health and safety, etc.

The alternative which ranked first was Ultraviolet Irradiation; it had the lowest health risk, the least impact on the natural environment, and is more effective in killing viruses. Its use will result in no toxicity being added to the discharges from the plant. In addition to this benefit, it will eliminate the transportation and storage of chlorine at the Main Treatment Plant. This will result in reduction in the risk to community health and safety, as well as the risk to occupational health and safety.

## **RESOLUTION #8**

### **Near Shore Water Quality And MTP Outfall Pipe**

The City and the other mediation participants agree that issues relating to near shore water quality, including Coatsworth Cut and the proposed MTP outfall pipe will be resolved for the purposes of the MTP EA by the following amendments to the EA and conditions to be imposed on the EA Approval, the implementation of which shall be guided by the Guiding Principles in Resolution #1:

#### **1. Near Shore Water Quality Degradation**

1.1 The City and the other participants agree that:

- the past and present degradation of the near shore water quality in the vicinity of the MTP and the associated recreational waters is unacceptable and that appropriate solutions must be identified and implemented by the City in a timely fashion to ensure that near shore water quality consistently meets all criteria for the protection of human health, health of biota and recreational uses;
- the discharges into Coatsworth Cut from the existing CSO outlets and the stormwater outlet are responsible for about 80% of the near shore water quality problems in the vicinity of the MTP and the associated recreational waters; and
- the effluent discharged through the seawall gates at the MTP during bypass situations is responsible for approximately 20% of the problem.

1.2 The City therefore agrees to the following initiatives:

##### **1.2.1 Cooperation with Toronto and Region Conservation Authority**

- The City and the other participants agree that serious consideration should be given to the potential for Coatsworth Cut to be converted into a wetland as part of a decentralized stormwater management system, in cooperation with the Toronto and Region Conservation

Authority (TRCA), and that a high priority should be given to thoroughly evaluating the potential of this option.

- In particular, the City agrees that the Commissioner of Works and Emergency Services or his designate will, immediately upon the ratification of this Mediation Agreement, enter into discussions with appropriate staff of the Toronto Region Conservation Authority to determine if a Joint City/TRCA Task Force, including public stakeholders, should be established. The specific objective of the Joint Task Force would be to complete a feasibility study for the conversion of Coatsworth Cut into a wetland to address both the serious water quality issue and the serious sedimentation issue facing the area.

#### 1.2.2 Long Term Water Quality Monitoring Program

- commencing as soon as possible and not later than June 1999, the City will establish a long term water quality monitoring program in Coatsworth Cut and the near-shore area in the vicinity of the MTP to establish baseline water quality data relevant to the protection of human health, health of biota and recreational uses;
- monitoring will take place throughout the entire year in order to determine the nature of the seasonal impacts on the lake; and
- the City will consult with the MTP NLC regarding the details of the monitoring program, including:
  - appropriate parameters that need to be monitored, such as the level of dissolved oxygen, suspended solids and pH, which could affect lake biota;
  - where and when they should be monitored; and
  - how and to whom the results of the monitoring program should be reported.

#### 1.2.3 CSO and Stormwater Outlets in Coatsworth Cut

- The City agrees that the discharges into Coatsworth Cut from the existing CSO outlets and the stormwater outlet that are responsible

for about 80% of the near shore water quality problems in the vicinity of the MTP and the adjacent recreational waters are a high priority and will be eliminated by the City as soon as possible, in accordance with a plan to be developed through the Wet Weather Flow Master Plan process.

- Until such time as these discharges into Coatsworth Cut are eliminated, the City agrees to monitor water quality in Coatsworth Cut on the same frequency as swimming beaches between April 1 and October 30 of each year, to ensure that these discharges are not creating a public health hazard for boaters or other water users.
- The City agrees to post Coatsworth Cut with appropriate warning signs, as if Coatsworth Cut were a swimming beach, whenever water quality in Coatsworth Cut fails to meet criteria for safe swimming.
- The City agrees that the mandate of the MTP EA Approval Implementation and Compliance Monitoring Committee (ICMC) shall include monitoring the progress of the City in the elimination of these discharges and in improving the water quality in Coatsworth Cut.

## **2. Proposed Outfall Pipe**

### **2.1 The City and the other participants agree:**

- that the effluent discharged through the seawall gates at the MTP during bypass situations is responsible for approximately 20% of the near shore water quality problems in the vicinity of the MTP and the associated recreational waters;
- that while it is important to eliminate this source of water pollution, it is not sufficient to address only this part of the problem; and
- that the proposed new outfall pipe for the MTP will address only this 20% of the water quality problem in the vicinity of the MTP.

### **2.2 The City agrees that the Environmental Assessment is to be considered amended so that the EA approval being sought by the City for a new outfall pipe for the MTP shall be a generic approval. The following parameters relating to the outfall pipe shall not be**

- determined by this EA Approval but shall be determined in the OWRA approval process:
- the length of the outfall pipe;
  - the capacity/diameter of the individual components and of the outfall itself;
  - the location of the pipe, both in the lake and at the MTP Site; and
  - the length and design of the diffusers.
- 2.3 The maximum capacity of the outfall pipe that may be approved through the OWRA approval process shall not exceed 3923 million litres per day (at high lake water level), the hydraulic capacity of the existing incoming sewer infrastructure to the MTP (with the Mid-Toronto Interceptor in pumped mode).
- 2.4 During the Ontario Water Resources Act approval process the City shall undertake studies to address and determine the following issues:
- 2.4.1 whether mixing the effluent that now leaves the MTP through the seawall gates during by-pass conditions with the effluent that now leaves the MTP through the existing outfall pipe and sending the mixture out the proposed new outfall would make disinfection of the MTP effluent by UV radiation less possible from a regulatory standpoint or less effective from a physical standpoint;
- 2.4.2 whether an interim UV facility/connection could be built to utilize the existing outfall, allowing for a potential deferral of the construction of the new outfall, without delaying the implementation of UV disinfection. If so, the completion and implementation of the WWFMP could allow the maximum capacity of the proposed new outfall pipe to be reduced, assuming that wet weather flows to the MTP would be reduced;
- 2.4.3 whether there are any potential impacts on the Island water filtration plant and the Harris water filtration plant;
- 2.4.4 whether there are alternative ways of eliminating the need to discharge effluent through the seawall gates that would make some or all of the proposed outfall pipe unnecessary, in light of:



- information that has become available since the MTP Outfall Water Quality Study was conducted in 1986 and reviewed in 1995;
- the new technologies that are proposed to be implemented at the MTP as a result of this EA, including UV disinfection, and beneficial utilization of biosolids;
- the proposed discontinuation of chlorine disinfection at the MTP;
- the potential for implementing tertiary treatment processes at the MTP;
- any options that by that time have been identified by the WWFMP process for reducing hydraulic flows through the plant by diverting stormwater away from the MTP; and
- current MOE requirements, policies and guidelines.

2.5 The OWRA studies, design and application process shall be undertaken with a comprehensive public consultation program, and shall be scheduled to avoid compromising the schedules for implementation of UV disinfection which are set out in Resolution #7.

2.6 The MTP ICMC (as set out in Resolution #10) shall be the Steering Committee for the OWRA studies, design and application process and shall make its recommendations through the Works and Utilities Committee to City Council. The ICMC shall be given the opportunity to review the terms of reference for all OWRA studies and participate in the selection of the consultants hired to complete them.

2.7 The City agrees that neither this EA Approval for a generic outfall pipe nor any subsequent OWRA approval that the City may obtain for a specific outfall pipe shall be interpreted in the WWFMP process or in any other future study or initiative, or used as any justification or support for:

- not continually striving to decrease the quantities of wet weather flows presently arriving at the MTP;
- not continually striving to improve final effluent quality prior to discharge; or
- increasing the approved hydraulic capacity of the MTP.

- 2.8 The City agrees that the Outfall Pipe shall not be used or justified as a chlorine contact chamber for the disinfection of effluent.
- 2.9 The City agrees in particular that the following principles from Resolution #2 are not to be considered to be undermined by any aspect of this resolution:
- that the primary purpose of the MTP is to treat sanitary sewage and that the efficiency of the plant to carry out this function must not be compromised by directing stormwater to the MTP;
  - that to avoid bypass situations, stormwater should not be directed to the MTP in excess of its maximum approved capacity for secondary treatment; and
  - that the MTP has a finite approved capacity and that stormwater unnecessarily directed to the MTP compromises the ability of the system to accommodate future development.

## **RESOLUTION #9**

### **Good Neighbour Issues**

The City and the other parties to the mediation agree that issues relating to the following topics will be resolved by the following commitments by the City being incorporated as amendments to the EA or as conditions of EA Approval, the implementation of which shall be guided by the Guiding Principles in Resolution #1:

#### **1. Neighbourhood Liaison Committee:**

- 1.1 The City agrees to establish and maintain a Neighbourhood Liaison Committee (NLC) in accordance with the Terms of Reference attached hereto.

#### **2. Noise:**

- 2.1 The City agrees that it will:
  - 2.1.1 Comply with all applicable Ministry of the Environment noise guidelines during all construction and operations at the MTP;
  - 2.1.2 Comply with all City of Toronto noise by-laws during all construction and operations at the MTP;
  - 2.1.3 Provide reasonable notice to all potentially affected neighbours of potentially noisy activities that are scheduled in advance, including a description of what is going to be done, where and when. (Notification of proposed activities will be provided to the NLC and the NLC will advise when neighbours should be notified);
  - 2.1.4 Work with the NLC to establish a noise complaint protocol that will be implemented by the City as soon as possible, including a 24 hour, 7 day per week “hotline” number that people can call to report complaints; and
  - 2.1.5 Ensure that all noise complaints are logged, investigated and resolved and reported to the Ministry and a nominated member of the MTP NLC immediately after they have been received.

### **3. Odour and air emissions:**

#### **3.1 The City agrees that it will:**

- 3.1.1 Comply with the same odour control criteria and protocol that was developed by the BMSC for the biosolids contractors (outlined on pages 40-43 of the biosolids RFP document, attached hereto);
- 3.1.2 Work with the NLC to establish an odour complaint protocol (based upon the one referred to above but made specific to the City's operations at the MTP) that will be implemented by the City as soon as possible, including a 24 hour, 7 day per week "hotline" number that people can call to report complaints;
- 3.1.3 Ensure that all odour complaints are logged, investigated and resolved and reported to the Ministry and a nominated member of the MTP NLC immediately after they have been received;
- 3.1.4 Ensure that an odour assessment of the entire MTP is conducted, by a qualified consultant, prior to the end of the year 2000. The odour assessment shall comprehensively identify the sources of all odours at the MTP and make recommendations for eliminating or minimizing them. The City will specifically instruct its consultant to interview employees at the MTP who are working directly with the parts of the operation that are potentially odourous, to obtain first hand information about the sources of odour and potential solutions;
- 3.1.5 Ensure that every employee at the MTP is aware that responsibility for odour reduction is part of everyone's job and that they are actively encouraged to report odour problems and potential solutions to their immediate supervisor whenever they believe that odours are worse than they could or should be or if remedial measures could reduce odours;
- 3.1.6 Provide the NLC with the opportunity to review the terms of reference and participate in the selection of the consultant for the odour study; and
- 3.1.7 Work proactively with the MTP NLC to address odour issues, including the implementation of all reasonable recommendations arising from the odour assessment.

## **4. Health Study:**

### **4.1 The need for a comprehensive epidemiological study was discussed, but not resolved:**

4.1.1 in the absence of a recommendation to do so by the Medical Officer of Health, the City is not prepared to conduct a comprehensive epidemiological study of the population in the vicinity of the MTP; other participants strongly believe that such a study is necessary and appropriate in order to document the state of community health and to establish baseline data against which future impacts could be compared.

### **4.2 It was agreed that:**

- 4.2.1 The City will arrange a meeting between the Medical Officer of Health and the participants to this mediation as soon as possible to discuss the potential parameters for a community health study of residents living in the vicinity of the MTP, for the specific purpose of determining whether a health study that would generate useful data could be designed and carried out at reasonable cost;
- 4.2.2 If the Medical Officer of Health is satisfied that a useful community health study could be conducted at reasonable cost and is prepared to recommend it, the City agrees that it will conduct it.
- 4.2.3 The City would continue its present practices of monitoring the health and safety of MTP employees;
- 4.2.4 The Risk Assessment study that was conducted by Senes during the course of this EA, was not a “health study” and will be withdrawn by the City from this EA;
- 4.2.5 Numerous concerns were expressed during the public consultation process about the need for a health study and the validity of the conclusions of the Senes study;
- 4.2.6 The City will not rely upon the Senes study, its conclusions, or any other part of it, at any time in the future, for any purpose relating to the relative or absolute risks associated with the incineration of biosolids at the MTP; and

- 4.2.7 The City would conduct a health study of the population in the vicinity of the MTP, the scope of which it would determine in consultation with the Medical Officer of Health and the Neighbourhood Liaison Committee (NLC), if it ever proposed the reintroduction of incineration of biosolids or the introduction of any other waste incineration technology at or near the MTP site.

## **5. Truck Traffic:**

- 5.1 The City agrees that it will:

- 5.1.1 prior to the end of 1999, establish truck routes for contractor's and City trucks travelling to and from the MTP and require such trucks to use those routes;
- 5.1.2 establish such routes to minimize negative impacts on residential uses in the vicinity of the MTP;
- 5.1.3 review and discuss truck route options with the NLC, prior to setting or amending them; and
- 5.1.4 retain the rail spur into the MTP and actively encourage its use as a transportation option.

## **6. Site Plan and Visual Aesthetics:**

- 6.1 The City agrees that:

- 6.1.1 Immediately upon the ratification of this Mediation Agreement, it will commence the process of completing a landscape architecture Site Plan for the ultimate development of the MTP Site and have it approved by City Council. The schedule and process for the preparation and finalization of the Site Plan will be discussed and resolved with the NLC. The plan will be developed with input from the broad community, including the Neighbourhood Liaison Committee (NLC).
- 6.1.2 The Site Plan will incorporate existing and future anticipated buildings, structures and plant processes, aesthetic improvements, the preservation of historical features, on-site stormwater management, as well as the use of set-backs, indigenous plants, directed lighting to minimize off-site

impacts, landscaping, buffers, and natural screening. The plan will be based on the ultimate conceptual development plan for the MTP Site, assuming no further lakefill. The Site Plan will identify the current and future vacant lands on the MTP site and the total area of such vacant lands.

- 6.1.3 The mitigating elements of the plan will be implemented by the City as soon as reasonably possible, while providing for the completion of the development of the site in an efficient fashion. The NLC will be consulted regarding the schedule for implementation of the plan.
- 6.1.4 Future buildings and structures at the MTP Site, and renovations of existing ones, will be constructed in an aesthetically pleasing manner which is harmonious with the neighbouring natural and recreational setting.
- 6.1.5 As an overall objective, the City will make the MTP Site as visually attractive as possible on-site and from nearby roads, residential and recreational areas and from the water.
- 6.1.6 Aesthetic improvements can be accomplished at the MTP Site within a reasonable budget and will be implemented on a reasonable schedule.
- 6.1.7 The NLC will be consulted regarding any proposed use of the MTP Site and any proposed amendments to the Site Plan. If the NLC considers any proposed use or development or any amendment to the Site Plan to be significant in its implications for the ultimate development of the site or in its visual or other impact on the neighbours of the MTP, the City agrees that no such use, development or amendment will be implemented unless it has received approval by City Council, and if necessary, approval under any applicable provincial legislation.

## **7. Storage of Chemicals on Site:**

### **7.1 The City agrees that:**

- 7.1.1 On March 30, 1999, or as soon thereafter as it can be scheduled, Works and Emergency Services will report to the MTP NLC, on the City's existing emergency response plans that are relevant to the MTP. At that meeting, the City will identify a feasible timeline for the development of a specific MTP chlorine emergency response plan. The plan will be developed

with the input of the community and the MTP NLC and will focus on evacuation and notification. The plan will have a horizon to the year 2005 (when chlorine use is anticipated to be replaced by UV disinfection) and will, if possible, be developed by September 30, 1999, to be operational by December 31, 1999.

- 7.1.2 It will prepare a site plan, within 60 days of ratification of this Mediation Agreement (and not later than September 1, 1999), that identifies the location and typical quantities of chemicals stored at the MTP which could have an adverse impact on the community in the event of an uncontrolled emergency situation. The site plan will be reviewed and updated, at least yearly, and provided to the MTP NLC and the City fire department.
- 7.1.3 Should there be any proposed change in the amount of PCB's stored at the MTP, or any proposed change in the Certificate of Approval regarding the storage of PCB's at the site, then the NLC will be notified and consulted, in advance. Any transportation of PCB's to or from the site or any increase in the quantity of PCBs stored at the site will require consultation with the NLC and approval by the Ministry of the Environment.



## **Main Treatment Plant Neighbourhood Liaison Committee Terms of Reference**

### **1. Mandate of the Committee:**

- 1.1 The mandate of the MTP NLC shall be to act as a public liaison committee that will:
  - 1.1.1 review and provide input, advice, and make recommendations on plant operations, any proposed use or development of the MTP Site and any EA implementation issues that may have a direct impact on the community in the vicinity of the MTP, including the environment, recreational waters and lake quality, and including those issues set out in Resolution #9 to the MTP EA Mediation Agreement;
  - 1.1.2 develop criteria for evaluating proposed uses or developments on the MTP Site;
  - 1.1.3 act as a liaison facilitating two way communications between the community and the City of Toronto with respect to issues relating to the MTP; and
  - 1.1.4 act as a liaison facilitating two way communications between the MTP NLC and the MTP EA Implementation and Compliance Monitoring Committee (ICMC) with respect to any implementation or compliance issues of concern to the community in the vicinity of the MTP.
- 1.2 The NLC may from time to time recommend modifications to its Terms of Reference that are consistent with its general purpose and where any such recommendations are accepted by City Council, these Terms of Reference shall be so modified.

### **2. Committee Membership:**

- 2.1 Membership of the MTP NLC shall include:
  - 2.1 residents living near the plant.
  - 2.2 service area residents.

- 2.3 representatives from: Citizens for a Safe Environment; The Public Committee For Safe Sewage Treatment in Metropolitan Toronto; the Lakeside Area Neighbourhood Association; Ashbridges Bay Watershed Council; and other Non-governmental Organizations based in the vicinity of the MTP.
- 2.4 representatives of local businesses/developers and recreational water users.
- 2.5 local political representatives.

### **3. Committee Procedures and Co-Chairs:**

- 3.1 The NLC shall establish its own procedures, consistent with its mandate.
- 3.2 The NLC shall annually elect from among its members two volunteer co-chairs who shall be responsible for the conduct of the NLC meetings. As an interim measure, Karen Buck and Karey Shinn shall be the co-chairs until March 2000.

### **4. Committee Decision Making Method:**

- 4.1 The Committee shall use the consensus model for decision making, wherever possible. In the event that a vote is necessary, each member shall have one vote.

### **5. Committee Meetings:**

- 5.1 The committee will meet at least once a year, every year, for the life of the plant.
- 5.2 The committee shall establish such other meeting schedule as it considers appropriate to fulfill its mandate.
- 5.3 All meetings shall be open to the public and in a location convenient to the community.
- 5.4 Meeting dates will be set to co-ordinate with the schedule of Works and Utilities Committee.

### **Committee Resources:**

- 6.1 The City will provide all necessary resources to the Committee, including:
  - 6.1.1 staff time and administrative support for preparation of minutes, recommendations and reports from the NLC;
  - 6.1.2 senior management attendance at committee meetings;
  - 6.1.3 status reports on relevant matters from City staff;
  - 6.1.4 timely responses to fulfill reasonable information requests;
  - 6.1.5 reasonable budget to fulfill mandate; and
  - 6.1.6 meeting locations.

### **Reporting Structure:**

- 7.1 The Committee will report to Works and Utilities Committee, through the Commissioner of Works and Emergency Services. Copies of minutes from all meetings and any recommendations/input will go to:
  - 7.1.1 Director of Water Pollution Control;
  - 7.1.2 Works and Utilities Committee or other appropriate standing committee<sup>1</sup>;
  - 7.1.3 Plant Manager at the MTP;
  - 7.1.4 the MTP EA Implementation and Compliance Monitoring Committee (ICMC); and
  - 7.1.5 any member of the community who requests them.
- 7.2 Recommendations and input from the NLC will be integrated by City Staff into any relevant reports (departmental, committee and other). The Committee will be provided with relevant written and/or oral feedback on its input.

### **Term of the Committee:**

- 8.1 The MTP Neighbourhood Liaison Committee shall be continued by the City in accordance with these Terms of Reference unless a subsequent EA Approval modifies this requirement.

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<sup>1</sup> When deputing before a standing committee of Toronto Council the deputant is assumed to be speaking as an individual, unless there is the consensus of the committee for sending a selected committee representative to depute on its behalf.

## **RESOLUTION #10**

### **Implementation, Review and Compliance Monitoring Issues**

The City and the other parties to the mediation agree that issues relating to the following topics will be resolved by the following commitments by the City being incorporated as amendments to the EA or as conditions of EA Approval, the implementation of which shall be guided by the Guiding Principles in Resolution #1:

#### **1. EA Implementation Plan:**

##### **1.1 The City and the other participants agree as follows:**

##### **1.1.1 The EA document is to be amended by deleting the Implementation Plan and related topics contained on pages 19-6 to 19-13 and replacing it as follows:**

- Guiding Principles: as set out in Resolution #1;
- Disinfection/Outfall System: as set out in Resolutions #7 and #8;
- Biosolids Management System: as set out in the Biosolids Addendum and Resolution #5;
- Expansion Projects: as set out in Resolution #3 and this Resolution;
- Implementation of other matters: in accordance with the Mediation Agreement;
- Public Consultation During the Implementation Stage: as set out throughout the Resolutions that form part of this Mediation Agreement;
- Five Year Review Process: As set out in this Resolution.

##### **1.1.2 The City shall ensure that its Planning department provides an annual update to the ICMC regarding population projections and that the Works department provides an annual report to the ICMC regarding the impact of these population projections on water and wastewater flows.**

- 4.2.1 The City shall ensure that all of its relevant departments and Committees receive a copy of this Mediation Agreement, understand the commitments that the City has made in this Agreement and incorporate these commitments, where relevant, into their activities and initiatives. In particular, the City shall ensure that its planning department incorporates these commitments into the process for development of the new Official Plan for the City of Toronto.
- 1.1.4 Immediately following the ratification of this Agreement by City Council, the Commissioner of Works and Emergency Services shall ensure that the relevant City staff take such steps as are necessary, without the need for any further authorization from City Council, to establish such committees, study processes and other initiatives or steps contemplated by this agreement to avoid any unnecessary delay in its implementation.
- 1.1.5 Upon the termination of incineration of biosolids at the MTP in accordance with Resolution #5, the City agrees to amend its Official Plan and Zoning By-law to specifically preclude incineration of biosolids or any other waste at the MTP Site.
- 1.1.6 The City shall ensure that its Environmental Task Force and any person responsible for any present or future Environmental Assessment or planning process that has the potential to result in recommendations or decisions that could affect the MTP processes or the use of the MTP Site are provided with a copy of this Mediation Agreement, understand the commitments that the City has made in this Agreement; incorporate these commitments, where relevant, into their activities, initiatives, recommendations and decisions; and comply with them.
- 1.1.7 The City agrees that the Commissioner of Works and Emergency Services shall, immediately upon the ratification of this Mediation Agreement, send a letter to all management staff in Works and Emergency Services who have any responsibilities bearing on the matters referred to in this Mediation Agreement. That letter shall attach a copy of the EA Approval, including this Mediation Agreement and emphasize

the importance of understanding and complying with the obligations it places on the City and its employees.

- 1.1.8 The participants all agree that the attached Master Schedule of estimated dates for implementation of the MTP EA approval represents their best estimates for implementation of these various initiatives as projected at the time of this mediation and that the City agrees to use its best efforts to achieve implementation generally in accordance with this estimate schedule.
- 1.1.9 The participants all agree that the attached graphic depiction entitled "Committee and Reporting Structure: MTP EA Approval Implementation" generally illustrates their agreement regarding the Committees that the City shall establish and the roles and relationships of those Committees with each other and with the existing Works and Utilities Committee and City Council. In all cases throughout Resolutions #1 to #11, whenever a reference is made to a committee reporting to Works and Utilities Committee, it is understood and agreed that such reporting shall be to that Committee through the Commissioner of Works.

## **2. Planning Horizon and Five Year Review Process:**

- 2.1 The City and the other participants agree that the City should have a 20 year planning horizon for the MTP EA, but that there is insufficient information presently available to support expanding the planning horizon of the EA beyond 2011 at this time. In particular, without the WWFMP, the WEP and the Biosolids Master Plan having been completed it is impossible to accurately forecast future flows to the MTP plant or future solids loadings.
- 2.2 As a result of the first five year review process in 2004, the planning horizon could be extended beyond 2011 to 2014 or potentially even to 2021, if it is appropriate to do so. As part of each five year review process, the City will conduct an examination of long-term planning issues that are relevant to this EA approval, including a comprehensive consideration of:

- 2.2.1 the WWFMP and its potential for reducing flows to the MTP;
  - 2.2.2 the Water Efficiency Plan and its potential for reducing flows to the MTP;
  - 2.2.3 the Wastewater and Water System Solids Management Master Plan and its implications for the MTP;
  - 2.2.4 the new Official Plan for the City of Toronto, and its implications for flows to the MTP;
  - 2.2.5 the most recent population projections available and their implications for flows to the MTP;
  - 2.2.6 the progress that has been made with respect to near shore water quality and the status of Coatsworth Cut;
  - 2.2.7 the status of the implementation of this EA Approval, including compliance with the commitments made in this Mediation Agreement;
  - 2.2.8 any new technologies that may be available; and
  - 2.2.9 such other relevant information as is then available.
- 2.3 The ICMC shall serve as the Steering Committee for each of the five year review processes conducted during the implementation of this EA approval. The ICMC and the NLC shall be consulted by the City regarding the design of an appropriate public consultation process for each five year review process and the specific issues that should be the subject of the review process.
- 2.4 Should the result of any five year review process be a conclusion by the City that it should seek approval for either an expansion of any capacity limit of the MTP, as defined in Resolution #3, or an extension to the planning horizon for this EA, the ICMC and the NLC shall both be consulted to determine if they are in agreement with the City's conclusion. In the event that either the ICMC or the NLC are not in agreement with the City's conclusion, the City agrees that it will retain an independent mediator to assist the members of those Committees and the City to reach an agreement about the approval that the City should seek and the conditions that should attach to any such approval.
- 2.5 The City agrees that it will not seek an EA approval for an expansion of any capacity limit of the MTP, as defined in Resolution #3, during the planning horizon for this EA, except, if it considers it necessary, in the context of the five year review process described herein. The City

- further agrees that it will not, during the planning horizon for this EA, seek a declaration under the EA Act to exempt any such expansion from the need for EA approval.
- 2.6 The City agrees that it will not seek to amend this EA approval or any of the conditions of approval, including any terms of this Mediation Agreement, without the consent of the ICMC and the NLC and, if reasonably available, the signatories to this Mediation Agreement, unless all of the foregoing have been fully consulted and any dispute has been mediated in good faith with the assistance of an independent mediator, but without success.
- 2.7 The City and the other participants agree that if any dispute arises between the City and the ICMC regarding compliance with this Mediation Agreement that they will work in good faith to attempt to resolve the dispute through discussions, including if necessary, an independent mediator prior to pursuing any other course of action.
- 3. MTP EA Approval Implementation and Compliance Monitoring Committee (ICMC):**
- 3.1 The City agrees that it will establish an *"MTP EA Approval Implementation and Compliance Monitoring Committee"* (ICMC), immediately upon receiving EA approval, in accordance with the Terms of Reference attached hereto.
- 3.2 The City agrees that the Commissioner of Works for the City, or such successor as may from time to time exist, shall ensure that City staff work cooperatively with the ICMC and that the ICMC will be provided with all necessary relevant information, including regular status reports, in a timely fashion, to enable it to carry out its mandate.
- 3.3 The Committee shall work cooperatively with City staff and report to the Works and Utilities Committee, through the Commissioner of Works and Emergency Services, on a regular basis regarding the implementation of the MTP EA Approval (including Conditions and all commitments made as part of this Mediation Agreement) and the City's compliance therewith.



- 3.4 The City shall prepare and file an Annual Report regarding its compliance with the MTP EA Approval (including Conditions and all commitments made as part of this Mediation Agreement) with the Ministry of the Environment, Director of the EA Branch (or its successor) by March 31 of the year immediately following the year being reported upon. A copy of the Annual Report shall also be provided to the ICMC at the time that it is filed with the Ministry.
- 3.5 The City shall include the following in its Annual Report:
- 3.5.1 a summary of all initiatives undertaken by the City during the year to implement the MTP EA Approval (including Conditions and all commitments made as part of this Mediation Agreement);
  - 3.5.2 a copy of all reports made during the year by the ICMC to the Works and Utilities Committee;
  - 3.5.3 a summary of any items of non-compliance, including the steps taken by the City to bring the matter back into compliance and the results achieved by those steps; and
  - 3.5.4 a summary of the initiatives intended to be undertaken to implement this EA Approval in the next twelve months.

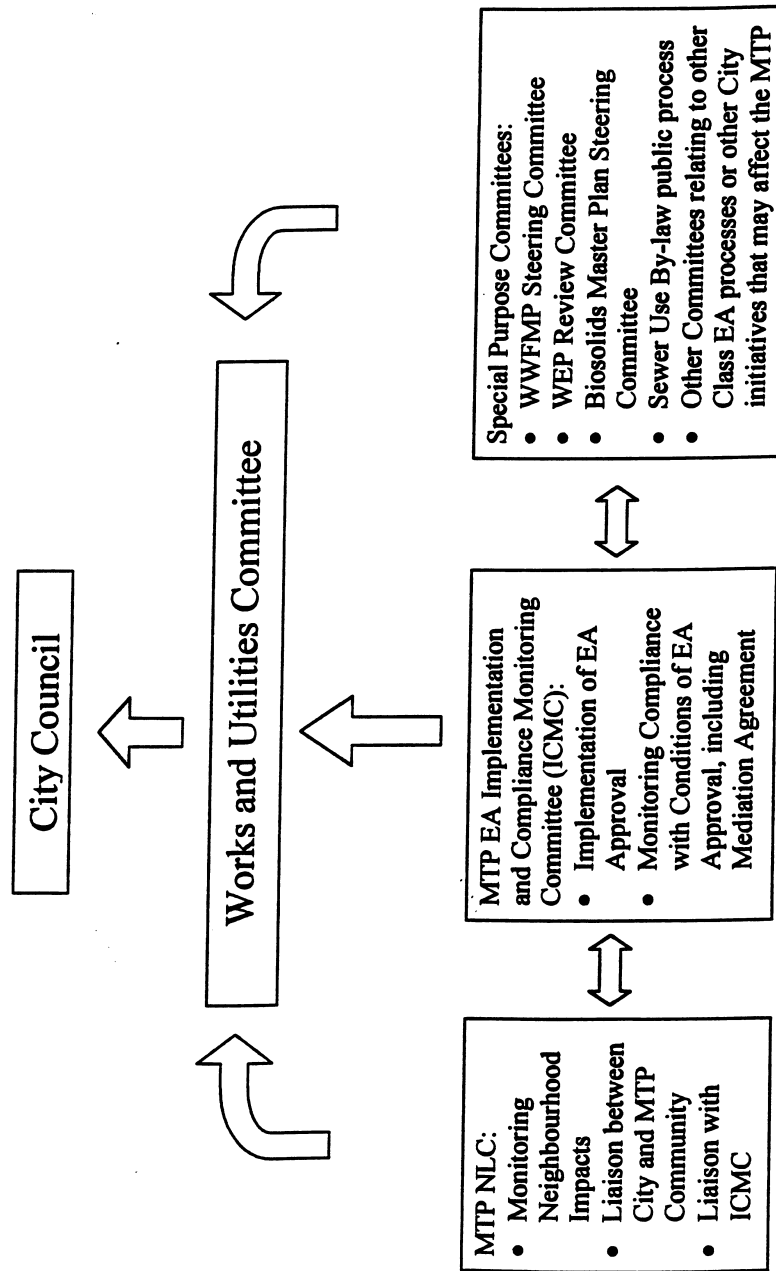
**TERMS OF REFERENCE  
MTP EA APPROVAL IMPLEMENTATION AND  
COMPLIANCE MONITORING COMMITTEE  
(ICMC)**

1. City Council shall establish and continue for the entire planning horizon of the MTP EA Approval, a public liaison committee to be known as the *MTP EA Approval Implementation and Compliance Monitoring Committee* (ICMC).
2. The membership of the ICMC shall include:
  - 2.1 All signatories to the MTP Mediation Agreement who wish to participate;
  - 2.2 The Commissioner of Works and Emergency Services, or his designate;
  - 2.3 Any members of City Council who wish to participate;
  - 2.4 Any members of the MTP EA Public Consultation Committee; and
  - 2.5 Other interested members of the public.
3. The ICMC shall not be discontinued by the City until and unless:
  - 3.1 The planning horizon for the MTP EA has been completed; or
  - 3.2 All members of the ICMC vote unanimously that their mandate has been completed and that the ICMC should be dissolved.
4. The mandate of the ICMC shall be to:
  - 4.1 Assist with the implementation of all aspects of the EA Approval for the Main Treatment Plant by providing public input to the City on issues relating to the implementation of the EA Approval for the Main Treatment Plant, including:
    - 4.1.1 Source control issues, in accordance with Resolution #2;
    - 4.1.2 MTP capacity issues, in accordance with Resolution #3;
    - 4.1.3 Plant optimization and economic issues, in accordance with Resolution #4;

- 4.1.4 Biosolids utilization issues, in accordance with Resolution #5;
- 4.1.5 Tertiary treatment technologies, in accordance with Resolution #6;
- 4.1.6 UV disinfection system, in accordance with Resolution #7;
- 4.1.7 Near shore water quality issues and MTP outfall pipe issues, in accordance with Resolution #8;
- 4.1.8 Good neighbour issues, in accordance with Resolution #9; and
- 4.1.9 EA implementation and review issues, in accordance with Resolution #10.
- 4.1.10 The role of the private sector, in accordance with Resolution #11;
- 4.2 In carrying out its mandate, the ICMC shall be guided by the Guiding Principles set out in Resolution #1.
- 4.3 Monitor the City's compliance with all aspects of the MTP EA Approval (including Conditions and all commitments made as part of this Mediation Agreement), in accordance with Resolution #10 of the Mediation Agreement; and to report thereon to City Council, through the Works and Utilities Committee, on a regular basis throughout the planning horizon for this EA.
- 4.4 Review and provide comments to the City on any applications for approvals that the City may need to make to implement any aspect of this EA approval, prior to any such application being submitted by the City.
- 5. Meetings of the Committee shall be open to the public. The ICMC shall meet monthly or on such other schedule as it may determine to be necessary and shall endeavor to make its decisions on a consensus basis. Where voting is necessary, each member shall have one vote.

6. The City shall provide such administrative support to the ICMC as is reasonably necessary for it to carry out its mandate, including the preparation of meeting minutes and committee reports and the provision of meeting facilities. The services of a facilitator may be used.
7. The City shall provide such relevant information and regular status reports to the ICMC as are reasonably necessary for it to carry out its mandate. The Committee will be entitled to request, receive and review all relevant information regarding the progress of matters within its mandate.

Committee and Reporting Structure: MTP EA Approval Implementation





**Turkstra Mazza**  
Hamilton Guelph Mississauga Toronto

## **RESOLUTION #11**

### **The Role of the Private Sector in the Ownership or Management of the MTP and the Wastewater Treatment System**

The City and the other participants to this Mediation agree on the following points related to this issue:

1. The Environmental Assessment for the Main Treatment Plant (MTP) has not included a consideration of the alternatives for ownership or management of either the MTP or the wastewater treatment system in the City of Toronto. Neither has it included a consideration of alternatives for meeting capital finance needs.
2. Many public authorities around the world have recently entered into agreements with private sector companies to own and operate wastewater and drinking water systems or to manage publicly owned systems.
3. There are private companies that have, from time to time, indicated an interest in considering some role in ownership or management of part or all of the wastewater treatment system, including the MTP.
4. The City has conducted a comparative study of private sector practices and is implementing “best practices” in the management of the wastewater operations treatment system, including the MTP, to increase the efficiency of existing technologies and infrastructure.
5. Whether the private sector should be engaged to manage the operation of the MTP or to independently own and operate the MTP or the wastewater treatment system is a question that has not been comprehensively addressed by the City, inside or outside the context of the MTP EA.
6. There is strong disagreement among the participants about the advantages and disadvantages of private sector ownership and/or management of such facilities and systems compared to the advantages and disadvantages of public sector ownership and/or management.



**The participants discussed but did not agree on the following propositions:**

1. As a condition of the approval of this EA, the City should be required to conduct a comprehensive study of the potential role of the private sector in the ownership or management of all or parts of the wastewater treatment system in the City of Toronto.
2. This study should consider alternatives for meeting capital finance needs for the system and the advantages and disadvantages to the environment, as defined in the Environmental Assessment Act, of all alternatives, including the status quo.
3. This study should include a full public consultation process, including representatives of all interested stakeholders, as if being conducted as an environmental assessment.
4. This study should recommend whether, to what extent and under what conditions the private sector should be engaged and should be guided by the following principles:
  - i) that the primary consideration in the evaluation of alternatives shall be to enhance public health and safety and environmental protection by improving the ability of the system to collect and treat sewage effectively to eliminate, so far as is achievable by best practices, all negative impacts on public health and safety and on air, land and water quality;
  - ii) that a necessary prerequisite of any private sector engagement is the establishment of a comprehensive regulatory and enforcement program by the City or the province to ensure that public health and safety objectives, environmental quality objectives and appropriate economic, social and labour objectives are achieved;
  - iii) the Guiding Principles set out in Resolution #1.