REGIONAL MUNICIPALITY OF OTTAWA-CARLETON MUNICIPALITÉ RÉGIONALE D'OTTAWA-CARLETON

REPORT RAPPORT

Our File/N/Réf. 38-93-0071x, 11-96-0581

Your File/V/Réf.

DATE 05 May 1997

TO/DEST. Co-ordinator, Planning and Environment Committee

FROM/EXP. Planning and Development Approvals Commissioner

SUBJECT/OBJET DRAFT WATER AND WASTEWATER MASTER PLANS

DEPARTMENTAL RECOMMENDATIONS

That the Planning and Environment Committee recommend that Council approve:

1. The Water Master Plan with the changes attached as Annex 'A';

2. The Wastewater Master Plan with the changes attached as Annex 'B'.

EXECUTIVE SUMMARY

A wide variety of comments were received from agencies, community groups and the public on the Draft Water and Wastewater Master Plans and the detailed responses correspond to the sequence of chapters and sections in that document.

The following is a summary of issues raised in the submissions.

Effect of changes in Water Demand on Revenues

It is anticipated that the per capita demand for water will continue to decrease over time. The need for area municipalities to update their sewer surcharge rates considering Regional water revenues and projections was identified.

Status of Proposed Location of Works

Are the location for the proposed works final locations?

Confirmation of Capacity of Proposed Work

There were several requests to confirm that proposed infrastructure was in time for and or adequate to support projected development.

Recognition of the Jurisdictions and Respective Roles

The Region's leadership role in wastewater system management and the complexity of the issues addressed by the plan were recognised and commended. The need to work with the area municipalities in managing of the system was reinforced.

Funding Mechanisms for Co-ordinated Programs

There was concern over how previous investments in the wastewater system would be reflected in funding future programs, specifically the flow management program.

Provision and Allocation of Wastewater System Capacity

There were several requests to clarify how the wastewater system capacity would be allocated and updated with time. Of particular interest was the provision of capacity in areas where the system is currently constrained and the three year review of capacity allocation to approved subdivisions.

Central Storage Tunnel

The Regional Significance of the central tunnel was identified and there were requests to clarify the benefits the tunnel would provide to the wastewater system.

Overflow Policies

The Region has been advised that the combined sewer overflow policy, presented in its draft form in the report, has been completed and adopted by the Province.

PURPOSE

The purpose of this report is to request Committee and Council approval of the Water and Wastewater Master Plans, circulated as a draft document in February 1997. This report has the further purpose of summarising the written comments received as of 25 April 1997, the official closing date, and providing staff's recommendations for each of the changes requested by individuals, agencies, and municipalities.

A separate report has been prepared for the approval of the Regional Official Plan. Recommended changes to the Water and Wastewater Master Plans that affect the Regional Official Plan will also be included in this separate report.

As a considerable number of written comments were received after the official closing date and were not able to be addressed in this document in time to meet the deadline for publication, staff will prepare an expanded version containing a response to all comments received at the time of writing. This second document will be tabled at the Planning and Environment Committee on 20 May 1997, thus providing the Committee with a complete summary of issues, responses and recommendations at that time.

FORMAT OF THE REPORT

The report provides a summary of comments received on the Draft Water and Wastewater Master Plans up to 25 April 1997, outlining overall comments on the Plan, as well as general and specific comments for each Section, along with staff's response and recommendations for any changes to

the Master Plan. Comments, responses and recommendations are provided in Annex "A" for the Water Master Plan and Annex 'B' for the Wastewater Master Plan. Every comment is attributed to the relevant source, indicated by a number corresponding to the original submission (see Annex "C" for the Index). General comments on the Plans are summarised at the beginning of each Annex.

Annex "C" to this report is an index of submissions received. A copy of the submissions received is available for viewing at the Resource Centre in the Regional Clerk's office.

ENVIRONMENTAL ASSESSMENT

The Water and Wastewater Master Plans are components of an integrated approach that addresses the Environmental Assessment process through the coordinated review of the Regional Official Plan and three infrastructure master plans. The integrated process, by design, met the requirements of the Environmental Assessment process. To address the multiple audiences and legislative requirements, three sets of documents were prepared: the Official Plan, the Master Plans, and the Planning and Environmental Assessment Summary Report.

The Master Plans document the technical approach for each infrastructure system and provide the basis for both the system design and the individual projects. The master plans are supporting documents to the Official Plan but are not legal documents. Modifications to the master plans do not require the level of approval required for the Official Plan.

The Planning and Environmental Assessment Summary Report documents the process in context of the Environmental Assessment process, including the comprehensive consultation program. The report is considered as a companion document to the Master Plans. Appendices to the summary report include a project sheet for all the projects identified in the master plans. Information provided on project sheets include: general description, site location, need, benefits, impacts, mitigation, environmental assessment schedule and phase completed, timing of works, and budget.

CONSULTATION

In May 1995, an Integrated Consultation Strategy was prepared for the Official Plan Review, the Transportation Master Plan, the Water Master Plan and the Wastewater Master Plan. The Integrated Consultation Strategy was a follow-up to the initial plan prepared for the Official Plan Review and the Scoping Document approved for the Water and Wastewater Master Plans in January of 1993. This document outlined the goals and objectives of the consultation program as well as a description of the consultation activities planned for all four studies. The Strategy was approved by Regional Council in May of 1995. As it was carried out, the program was modified as necessary to better meet the needs of the public and the requirement for input of the four studies.

Prior to the development of this strategy, consultation activities for the Official Plan Review had already been undertaken. These activities served as a basis for developing the Community Vision that guided the Official Plan Review and the associated Master Plans as well as providing some insight into appropriate consultation activities for the integrated studies.

The consultation program was designed to meet the ongoing consultation needs of the four studies as well as focusing on obtaining input at milestone decision points. The program was developed keeping in mind three key elements of effective consultation:

- informing the stakeholders;
- involving the stakeholders; and,
- incorporating input from stakeholders.

The program was aimed at a broad target audience including the general public; special interest groups and community associations; municipal staff; local, provincial and federal authorities and agencies; business groups; and the media.

Common consultation events were used where possible to help reinforce the interrelationship among the four studies and to make the most efficient use of both the public's and the Region's time.

The public consultation process has been carried out in accordance with Environmental Assessment requirements. Schedule B projects occurring in the first ten years of the 2021 planning horizon will be filed publicly when the Master Plans are approved by Committee and Council.

A more detailed explanation and description of all consultation activities undertaken since the circulation of the Draft Official Plan, Transportation Master Plan and Water and Wastewater Master Plans can be found in the Official Plan Transmittal Report.

FINANCIAL IMPLICATIONS

When the Regional Development Strategy (RDS) was adopted by Regional Council, on 13 November 1996, it was accompanied by the Finance Department's report entitled "Regional Development Strategy (RDS): Municipal Financial Impact Update".

To date, this report has not been updated to reflect the most recent Provincial funding initiatives.

Approved by N. Tunnacliffe, MCIP, RPP

MC/kce

ANNEX A

SUMMARY OF COMMENTS RECEIVED AS OF APRIL 25, 1997 WATER MASTER PLAN

General Comments

1. Comment - Why was this report considered finalised in mid 1996 prior to any review. (108)

Response - This report (the Water Master Plan) is draft for public review. The report 'Water: Detailed Evaluation Phase of the Regional Development Strategy' was a final report that documented infrastructure and associated costs required to support the development pattern as presented in the Draft Regional Development Strategy (June 1996). The Water Master Plan is based on all previous work, comments received, and refinements to the Regional Development Strategy based on Councils direction and subsequent analyses.

Recommendation - No change.

2. Comment - It is anticipated that the per capita demand for water will continue to decrease over time. The City of Ottawa should monitor annual Regional water revenues and make any adjustments in its sewage service rate to compensate for losses so that sewer rehabilitation programs, which will be under additional pressure from intensification in the future, will not be further jeopardised. (109)

Response - The need to monitor the effect of the change in water demand and its affect on water and wastewater system revenues was identified in the background document 'Water & Wastewater System Budget and Finance: Present Setting Document.' The Region can provide the City with its projections of water demand for the City of Ottawa as prepared for the Water Master plan and as updated as part of Water and Wastewater Master Plans monitoring process.

Recommendation - No change.

3. Comment - Is it possible to legislate low use water fixtures? (108)

Response - Low use water fixtures have been legislated through the provincial plumbing code.

Recommendation - No change.

4. Comment - Has the standard of 350 Litres per person per day been accepted and are revised standards accepted for other land uses? (108)

Response - Table 3.3 in the Water Master Plan presents the demand rates on which the plan is based. The rates reflect projected changes in demand due to plumbing code changes and analyses

of existing demands. The RMOC Water design standards will be reviewed and updated considering these projected and observed demands as appropriate.

Recommendation - No change.

5. Section 1.3 - Table 1-2 shows an increase in dwelling units inside the Greenbelt of 80,0000 between 1991 and 2021. The table should be amended and the associated modelling should be revisited to reflect the 60,000 to 72,000 range approved by Council. (108)

Response - The 60,000 to 72,000 range of dwelling units, as approved by Council, is for the period 1996 to 2021. The numbers shown in Table 1-2 are for the period 1991 to 2021.

Recommendation - No change.

6. Section 4.2 - Is the location for the proposed elevated tank in Kanata, as shown in Figure 4-1, a firm location? (108, 112)

The proposed location for elevated storage tank in Nepean South Urban Community (Figure 4-2) is in significant conflict with the community design provisions of the Draft Secondary Plan for Areas 9 and 10. We recommend that the tank be relocated to the north-west quadrant of the Highway 416/ Fallowfield interchange (City of Nepean Operations / Maintenance Depot) where more favourable foundation conditions and higher ground elevation will permit the tank to be constructed to a height of 40 m above grade and, at the same time, serve as a community identification feature for Highway 416 travellers.(88)

Please confirm that the suggested upgrade to the South Gloucester Pump Station will accommodate the anticipated growth (930 units and 2,790 persons) prior to any further water infrastructure construction. (230)

Amend the boundary between the BARR and Zone 2W to exclude any portion of 2W south of the Jock River. This will eliminate the need for one watermain crossing of the Jock River and will simplify the staging/ phasing of water infrastructure for development of designated lands south of the Jock River. (88)

Response -

Kanata Elevated Tank

The location is approximate and will be refined as part of the secondary planning process. It does define the need of a tank in the northwest corner of Kanata to meet the projected demands resulting from growth.

South Nepean Elevated Tank

The tank location will be reviewed and appropriate changes made prior to the Schedule B Class EA filing of the project.

South Gloucester Pump Station

The infrastructure identified in the Master Plan provides sufficient water supply for the projected growth, including institution, commercial and industrial demands. The actual rate and type of development will be monitored to ensure the adequacy of the infrastructure to meet demands.

<u>Pressure Zone Boundary Between BAR zone and Zone 2W</u> Agree.

Recommendation -

Kanata and South Nepean Elevated Tanks Locations

No change pending further review.

South Gloucester Pump Station

No change.

Pressure Zone Boundary Between BAR zone and Zone 2W

Amend the boundary to exclude any portion of 2W south of the Jock River.

ERRORS, OMISSIONS, AND CLARIFICATIONS

Page ES-1, 1-2 Amend by updating the objective on Demand Management to read:

"Demand Management: to encourage effective and careful use of water by the RMOC residents".

Page ES-3 Amend the fourth paragraph to read:

"Federal, provincial and municipal legislation have guided the development of the water system."

Page ES-3 Amend the fifth paragraph to read:

"It is necessary to implement a Water Efficiency Program targeted at reducing peak water consumption during periods of highest demand. The overall condition of the existing system is very good and has been maintained through a variety of operational and capital programs including rehabilitation and replacement."

Page ES-5 Amend the fifth paragraph, on promoting demand management principles, to read:

"continue the Wise Use of Water program to educate the public on appropriate use of water;".

General Edits - Amend the plan to reflect the most current data describing the system including length, sizes and age of mains, number of hydrants, etc.

ANNEX 'B'

SUMMARY OF COMMENTS RECEIVED AS OF APRIL 25, 1997 WASTEWATER MASTER PLAN

7. General Comments - Planning for the entire wastewater system is not an easy task and the Region should be commended for the provision of a comprehensive framework. The City supports the Region's move to assume leadership with regard to wastewater system planning and we view the document as a starting point from which on-going consultation should take place. However, there appears to be some major issues that the Plan does not address and a lack of recognition of work by the area municipalities. (109)

There is extensive use of prescriptive phrases, limited definition of system problems, and a lack of recognition concerning the major contributions of area municipalities in removing water from the local component of the wastewater system. All suggest a lack of sensitivity to the present system of governance and the importance of working together. (109)

The Region has indicated that, from its own perspective, its Development Strategy is affordable. By requiring that both levels of government work together, the City will have the ability to influence the setting of priority servicing areas and the phasing process so that appropriate funding may be made available to accommodate growth. This will also provide opportunity to ensure that the Region provides the required infrastructure in the Regional Capital Plan. (109)

The Area Municipalities should have been consulted extensively in the preparation of the document. (109)

Response - The Wastewater Master Plan has established a framework for considering the management of the system considering all components of the system. The understanding of the system issues included consideration of a list of system problems and issues developed through consultation with the area municipalities. The list was prepared as part of the Region's Operational Review of the Wastewater System Study.

Although effort has been made to provide context in each section, the Master Plan must be considered as a whole. It does establish a framework and rationale for capital works and programs. It is not intended to provide a detailed description of all of the sub-components and issues.

Achievement of the goals defined in the plan requires not just consulting but working with the area municipalities in addressing our common problems. Cost effective planning and management of this essential service requires considering it as a single system.

The need to better understand local system issues and programs is recognised in the implementation plan for the flow management program (Section 5.1.1). The flow management program and other system wide approaches must be implemented in partnership with the area municipalities.

Recommendation - Amend the policy in Section 3.6.5, on Regional Role in System Wide Approaches, to read:

"Council shall consider the wastewater system a single system and shall work in partnership with the area municipalities to implement programs."

Amend the policy in Section 3.4, addressing the flow management strategy, to read:

"Council shall maintain a flow management program in partnership with the area municipalities for the entire wastewater system that includes the following major activities:".

8. Executive Summary - In the Executive Summary there is a statement that the RDS chooses where development is to occur and the Master Plan identifies the required infrastructure. We thought the opposite was to occur given the more "bang for the buck" theory. In actual fact, all of the systems have capacity, except Kanata, and inside the Greenbelt yet you have ranked these areas as a top priority. (108)

Response - The Master Plans document the final results of a process that identified principles for the Regional Development Strategy. The process followed incorporated the consideration of the cost of infrastructure along with environmental and community and economic criteria, in the strategic level and detailed evaluation phases.

Recommendation - No change.

9. Section 1.1 - This section notes that the master planning process has been designed to meet the requirements of Phases 1 and 2 of the Provincial Class Environmental Assessment Process. Major components of the EA process are not addressed by the Master Plan document. (109)

Response - The Master Plan process was designed to meet the requirements of Phases 1 and 2 of the Provincial Class Environmental Assessment process (Section 1.2 Integration with Other Planning Initiatives). The process is documented in the report entitled 'Planning & Environmental Assessment Summary Report'. The Master Plan should be read in conjunction with this report.

Recommendation - No change.

10. Table 2.1 - This table provides a summary of flow and collection system type and remedial measures. It is suggested that "design, construction and inspection techniques" be added to the remedial measures list for combined systems to address groundwater infiltration. It is also suggested that "construction of storm sewers in partially separated areas," be added to the remedial measures list for partially separated areas where there is no storm sewer. (109)

Response - Agree.

Recommendation - Amend the list in Table 2.1 for "Combined System-Remedial Measures-Groundwater Infiltration" that reads "system repairs" to read "system repairs, design, construction, inspection."

Amend the list in Table 2.1 for "Partially Separated-Remedial Measures-Weeping Tiles" that reads "disconnect, storage," to read "disconnect, storage, provision of storm sewers"

11. Section 2.5.1 - Insufficient information is provided in the document to support the conclusion reached and this should be discussed further with the municipalities. (109)

Response - The statement is made recognising the need to reduce leaks into the system. The need for a co-ordinated approach, including discussions with the area municipalities has been identified.

Recommendation- No change.

12. Section 3.2 - This section notes that maximizing the use of infrastructure must be considered in balance with matters presented in Section 3.3 and Section 3.5. Why has Section 3.4 been excluded from this consideration? Why have other potential issues, such as cost effectiveness, not been listed. (109)

Response - Point noted. Affordability was addressed by the integrated process.

Response - No change.

13. Section 3.5.2 - Clarify the wastewater system capacity allocation stages and the method of confirming capacity allocation in accordance with the Regional Development Pattern. (223)

Response - Capacity allocation is given at two major points: Planning allocation and Draft allocation. Planning allocation is implicit in the Official Plan and the Master Plans, and is based on the development targets established by the Regional Development Strategy. The plans establish an intent to provide infrastructure to support those targets. In other words, the constraints on planning allocation are the RDS targets. Draft allocation, given at the time of draft approval of a plan of subdivision or condominium, considers the systems' capacity at the time of development plan review. In some cases the capacity of one or more of the systems may not have sufficient capacity to support the development, pending construction of works.

The intent of the phasing strategy is to minimize development constraints due to system capacity. The final decision on timing of works to increase capacity depends on vacant land availability, affordability in terms of available Regional funds and the extent of development pressures in a given area.

Recommendation - Amend Section 3.5.2 by adding at the end of this Section the following: "Capacity allocation is given at two major points: Planning allocation and Draft allocation. Planning allocation is implicit in the Official Plan and the Master Plans, and is based on the

development targets established by the Regional Development Strategy. The plans establish an intent to provide infrastructure to support those targets. In other words, the constraints on planning allocation are the RDS targets. Draft allocation, given at the time of draft approval of a plan of subdivision or condominium, considers the systems' capacity at the time of development plan review. In some cases the capacity of one or more of the systems may not have sufficient capacity to support the development, pending construction of works.

The intent of the phasing strategy is to minimize development constraints due to system capacity. The final decision on timing of works to increase capacity depends on vacant land availability, affordability in terms of available Regional funds and the extent of development pressures in a given area."

14. Section 3.5.2.c - There is concern that the approach may stop development in parts of Ottawa. The approach does not recognise municipal objectives for its system and the annual program of work that the City already undertakes. (109)

Response - The policy has been be rewritten. It has also been recognised as a bridging policy pending the implementation of three diversions and the flow management program.

Recommendation - Amend Section 3.5.2.c, by replacing it with the following:

"Provide opportunity for new development to proceed in areas where the wastewater system is constrained, by removing flows from the wastewater system. This will be accomplished through a flow removal program implemented in co-ordination with the corresponding area municipalities and designed to compliment the system wide flow management program in Policy 2."

Amend the text preceding the updated policy to reflect the changes in the policy.

15. Section 3.6 - Not all overflows have been adequately defined and reviewed in this Plan.(109) While it is noted that implementation of the policies detailed in previous sections will require close co-ordination with area municipalities, no further information is provided. (109)

A brief section on stormwater management ... concludes that "minor-major system design must be incorporated in the design of all areas where combined sewers are to be maintained." The objectives and policies should be adjusted to respect the role of local government as well as the MOEE. (109)

Section 3.6.2 provides information regarding the design of partially separated sewer systems then follows with statements regarding the flow management program. Why has this well-stated objective not been incorporated into Section 3.4? (109)

Response - The policies presented in the Master Plan provide a framework for review and approval by MOEE and within which the Region and area municipalities can work. The detailed trade-offs regarding system overflows is a flow management issue that must be addressed with the

area municipalities and the Region. Implementation will require consultation and working together with the area municipalities to address the problems systematically.

The minor-major system design concept recognises the limitations of the receiving pipe systems. Control of stormwater inflows is required to protect the Regional system from surcharging.

Although effort has been made to provide context in each section, the Master Plan must be considered as a whole.

Recommendations - No change.

16. Section 3.7 - Simple observed flows are too limited a data source to establish performance based standards. (109)

Response - The standards referred to are the design standards for predicting wastewater flows and are the basis for long term planning. The Region maintains a single standard for the entire wastewater system. The development of performance based standards would entail development of area specific standards that reflect the historical performance of the system within that area and judgement on the ability to maintain those levels. The standards would be based on multi-year records, observed trends and understanding of factors that could influence future changes in flows, rather than a single year 'snap shot.'

Recommendation - No change.

17. Section 4.1.4.c - Amend the plan to incorporate the upgrading or rehabilitation of the Stittsville trunk if necessary to permit development of the currently designated industrial, commercial, institutional lands as well as for additional growth in the vicinity of the Corel Centre. (223)

Clarify how the dwelling units for Stittsville can be increased from 6,000 to 8,000. (200)

Amend the plan to include infrastructure upgrades to accommodate 2,800 dwelling units in Richmond as "Buildout" according to the Draft Regional Official Plan." (223)

The Certificate of Approval for Munster Hamlet Lagoon specified lagoons are an interim measure and that Munster would be connected to the Regional System. (233) There is concern that there was insufficient consideration of property owners next to the lagoon. (281)

Response -

Stittsville

The capacity assessment in the Wastewater Master Plan is based on the Regional Development Strategy with consideration of buildout potential. Since the existing trunk meets the 2021 projected requirements there is no need to consider upgrading the capacity of the Stittsville trunk. Rehabilitation requirements are not addressed by this plan except in the cases where capacity upgrades are required to support the projected demands.

The new plan incorporates an updated allocation for industrial, commercial and institutional lands for Stittsville. The allocation was decreased from 240 ha to 97 ha for the 2021 planning horizon. The decrease is justified recognising the historical trend for employment in Stittsville and that Stittsville functions as part of the West Urban Community that includes Kanata. The decrease in institutional, commercial and industrial lands frees up available capacity in the Regional infrastructure to support the additional 2,000 dwelling units. The Changes being recommended for the draft OP contain a recommendation to increase the units to 8,500 in the second priority. this is seen as a long term issue to be addressed as flow management strategies are implemented.

Richmond: Consideration for Buildout

A number of factors including buildout potential are considered in (over)sizing facilities. However, there is no requirement to provide infrastructure to support buildout.

Munster Hamlet

The Certificate of Approval for Munster Hamlet Lagoon required that should a sanitary trunk sewer be constructed from the Regional Wastewater System to Munster Hamlet then the lagoon must be taken out of service and the Munster sanitary sewer system be connected to the trunk sewer. This condition does not require the construction of a sanitary trunk sewer.

An Environmental Study Report identified the expansion of the lagoons and spray irrigation system as the preferred alternative. The report and associated work program has met the requirements of the Environmental Assessment planning process to the satisfaction of the Ministry of Environment and Energy.

Recommendation - No change.

18. Section 4.1.1.b - The Wastewater Master Plan is somewhat confusing in terms of its presentation of the tunnel project. The fact that the tunnel project originated with the City of Ottawa to address issues related to its combined sewer area study, and that the Region joined the project due to the opportunities it provided in terms of system regulation is not well developed. (109)

The changes to the tunnel concept, beyond the expected fine-tuning adjustments that would be part of the next phase, should be thoroughly discussed between parties. (109)

The tunnel is not included as a Work of Regional Significance (109 and 292)

Please explain the rationale for the central tunnel in context of the following questions:

- who benefits from the tunnel?
- what problems does it solve, other than those of the City of Ottawa?
- would the Region have to share in over-sizing the tunnel if there was a 40,000 unit increase
- does water quality improve (108)

Response - There should be proper recognition of the work leading to and defining the function of the central storage tunnel. The joint participation of the Region and the City of Ottawa in the preparation of the central storage tunnel ESR demonstrated the need and value of considering the tunnel in context of both systems.

The Master Plan had to consider the central tunnel in assessing the system needs and performance to the design year of 2021. The concepts presented in the Master Plan have now been discussed with the City of Ottawa. The Master Plan does not recommend any change in the design of the tunnel. The recommendations address the connection of Regional Systems to the tunnel and the ability of the tunnel to address all system overflows. The Master Plan has clearly documented the value of the tunnel to the function of the entire system.

The central storage tunnel does meet the criteria for Works of Regional Significance.

The Region, the City of Ottawa, the Village of Rockcliffe, the City of Vanier, and the community at large who benefit from the presence of the Ottawa River; all benefit from the central tunnel. The four municipalities benefit because they either have flows that contribute to the overflow volume addressed by the tunnel and or have combined system outfalls from which overflows must be addressed under the MOEE Policy. The commissioning of the central tunnel will decrease the amount of untreated overflows by 50 to 60%. There will be corresponding improvements to water quality and benefits to the users of the Ottawa River water front.

The capacity limitations of the interceptor would have precluded the ability to achieve the MOEE objectives if the overflows at each regulator individually had to achieve the 90% objective. If a system-wide approach to the central tunnel had not been taken, there would have been a requirement to address each overflow. This would require the study and selection of various alternatives including local storage, twinning the interceptor, or extensive separation and or flow removal programs to achieve the Provincial objectives. Meeting all of these requirements would have significantly exceeded the marginal cost of over-sizing the tunnel.

The proposed diversions and the central tunnel are jointly required to meet the CSO objectives and the sewer servicing capacity identified in the RDS. Cost sharing arrangements and detailed assessment of growth related costs are to be further defined in subsequent work.

Recommendation - Amend of Section 4.1.1.b) by adding the following paragraph at the beginning of the section.

"The concept of a central storage tunnel was identified in the Report 'Combined Sewer Area study' as prepared for the City of Ottawa (1992). It was recognised as a component of the preferred solution for renewing the remaining area of the City of Ottawa's combined sewer system. The significance of the tunnel to the Regional system and its value in addressing combined sewer overflows led the Region to participate jointly with the City in preparation of the Environmental Study Report. The solution identified in that report, and associated modelling, has been incorporated in this Master Plan.

The following provides further definition on how the tunnel could function in context of the Regional system and the 2021 planning horizon."

19. Section 5.1.1 - The Region's proposal to identify problems in the wastewater system from a system-wide perspective and to co-ordinate solutions with maintenance and rehabilitation programs at the Regional and local levels is supported by the City.

Consultation with the area municipalities prior to the formulation of the objectives and policies for the program should have taken place.

Although three major alternatives are listed, much of the discussion appears to concentrate on changes to the local systems.(109)

Response - The discussion reflects the understanding of underlying causes. The approach defined in Section 5.1 identifies the need to consider 'removing flows at source, providing additional capacity, (and) providing protection against rare event flows' to identify the best solution. The development and implementation of the flow management program will require working in partnership with the area municipalities.

Recommendation - No change.

20. Section .5.1.1 There is a danger that historical municipal financial contributions to the Regional system may be ignored and that the issue of funding may not be assessed in its proper context. This may tend to penalize older local systems and result in Ottawa's further overcontribution.

As the integrity of the overall system has been stressed throughout the report, successful management will depend not only on the affordability of the plan for the Region, but the affordability of local system improvements. Therefore, analysis of and conclusions drawn regarding "affordability" should include costs to both levels of government. (109)

Response - A thorough review of funding issues related to the flow management program will be required to ensure that they are equitable. The extent of the consultation and review required to define and implement the flow management program is well beyond the scope of the master plan. The intent of the program is to address the best overall solutions and minimize costs, as defined in Section 5.1.1.

Recommendation - No change.

21. Section 5.1.4 - Although the City's separation program originated partially from concern for structural problems, this program has also been pursued to remove flows and to provide hydraulic improvements. (109)

Response - The statement was not meant to reflect the philosophy of the programs implemented by the area municipalities. It reflects the historical change in rehabilitation program focus from one of structural integrity to a comprehensive approach.

Recommendation - No change.

22. Section 5.1.4 - Based on our experience in management of the local system, the storm sewer system plays an important role in aspects of sanitary sewer system management. It is expected

that redirecting drainage flows from the sanitary system to the storm sewer system would be considered as part of the flow management program would consider. This relationship between the systems has not been addressed by the plan. (109)

Response - A comprehensive view is essential for the success of the flow management program. This is a flow management program development and implementation issue.

Recommendation - No change.

23. Information Requests

Please confirm water and wastewater capacities are sufficient for airport developments north of Leitrim Road. (105)

Please confirm there is adequate capacity for 2790 units prior to the construction of the Leitrim feedermain (230)

Please provide detail on increased cost estimate for sanitary for Leitrim (230)

Please confirm the timing of construction for the Ottawa River Sub-trunk as identified in the Wastewater Master Plan. (108)

Response - The Water and Wastewater Master Plans identify infrastructure requirements to support population and land uses as defined in Appendix D of the Wastewater Master Plan. This included water and wastewater system capacity allocation as for land near the airport. The Water Master Plan recommends the expansion of the South Gloucester Pumping Station to accommodate initial development in Leitrim. This is followed by the construction of elevated storage and then a feedermain connection to the Ottawa South Reservoir.

Cost estimates for sanitary services to Leitrim are described in the Wastewater Master plan. The estimates include a higher contingency allowance than previous studies.

The need for the Ottawa River sub-trunk was based on assumptions for local servicing. The local servicing requirements are being reviewed in more detail to ensure the Ottawa River Sub-trunk meets the criteria for a Regionally significant works. The results of the review are anticipated prior to finalizing the Master Plan in July 1997.

Recommendation - No changes pending further information.

ERRORS, OMISSIONS, AND CLARIFICATIONS

Phasing: The Project Sheets in the Planning & Environmental Assessment Document are the reference for all project timing. References in the Master Plan Document will be reviewed to ensure consistency.

- 24. References to 'Ministry of the Environment and Energy' should read 'Ministry of Environment and Energy'
- 25. Page 1-4 Amend the first bullet to read:
- "protect public health and property"
- 26. Page 2-9 Amend the last sentence third paragraph to read:
- "System component failures include things like pipe collapses or pumping station failures"
- 27. Page 2-9 Amend the last Paragraph to read:
- "The MOEE policy on combined sewer overflows is provided in Appendix C. The Master Plan conforms to the policy".

28. Page 2-10 Amend the second paragraph third sentence to read:

"The surcharge of partially separated sewers may occur more frequently than other systems because of original design assumptions made regarding flow rates from building foundation drains."

29. Page 2-10 Amend the last paragraph first sentence to read;

"The most significant risk associated with system failure is the risk to public health and property damage due to basement flooding."

30. Page 2-13 Amend Section 2.4.3 second paragraph where the sentences read:

"The ESR has been filed for public review. Therefore the works should proceed in 1997 and 1998." by the sentences "The project is in phase 5 of the EA process, detailed design and construction."

31. Page 2-15 Amend the Section on Operations, Maintenance and Rehabilitation to read as follows:

"The lower end of the Cave Creek Collector will require major rehabilitation in the next 10 years and the Alvin Heights sewer needs replacement.

The Hemlock Pumping station facility has reached the end of its useful life and is being replaced. Upon completion of the works underway, the rated capacity of the pumping station will be 150 L/s with provision to increase the capacity to 300 L/s. The potential for increased capacity provides for flexibility in future development alternatives and overflow control. The associated forcemain has been rebuilt. It is anticipated the gravity portion of the Hemlock system will require replacement in the next 25 years. The timing and cost of the works has not been identified.

The South Ottawa collector is currently operated during wet weather events only. The dry weather flows are too low to prevent deposition of solids."

32. Table 2.1 Amend the entry "% of flow in Combined sewers: Stormwater" from "50-75" to read "0-75".

33. Page 3-4 Amend Section 3.4 second paragraph, last sentence to read;

"This risk is greatest in old sections of the system where the wastewater system was designed to receive drainage as well as sanitary flows."

35. Page 3-5 Amend the third and fourth Objectives to read:

"adopt system wide standards in construction, maintenance and operation"

"adopt a uniform system of data management so that data can be effectively shared between municipalities".

36. Page 3-5 Amend the third bullet of the Policy to read:

"evaluation of alternative remediation, including additional capacity, based on cost".

37. Page 3-7 Amend Section 3.5.2.b third bullet to read:

"amount of development completed to date".

38. Page 3-7 Amend Section 3.5.2.c title to read:

"Support of Development for Areas Where System Capacity is Constrained".

39. Page 3-8 Amend the third paragraph first sentence to read:

"This policy does not apply when the only impact is a perceived increased in combined sewer overflows."

39. Page 3-8 Amend the objective to read:

"Provide opportunity for development to proceed in areas where the sewer system capacity is constrained."

40. Page 3-11 Amend the policy on Combined Sewer Overflows as follows:

- "Pollution Control Plan" to read "Pollution Prevention and Control Plan";
- the policy should be updated to include a list of the minimum controls; and
- the period during which the volumetric objective applies should be updated to conform to the adopted policy.

41. Appendix C - Amend by replacing it with the adopted MOEE policy on combined sewer overflows.

42. Page 3-13 Amend Table 3.4 to read:

Table: 3.4 Summary of Wastewater System Overflows & Policies		
Туре	System	Policy
	Type	
Combined Sewer	Combined	• MOEE Procedure F-5-5
Overflows		This policy is applicable to flows from areas
(at original sewer		serviced by combined systems, or by partially
outfall)		separated systems that were originally combined
Partially	Partially	Allowable under infrequent hydrologic events
Separated System	Separated	(less than once every 5 years for the same
Overflow		location), where property is not threatened, with
		limited duration and impact to the environment.
		Solutions to existing occurrences are to be
		established in a long term implementation plan.
Emergency	Separated	Can occur under emergency situations. After an
Overflows		overflow occurrence, the contributing factors and
		a solution should be identified and implemented
		as soon as practicable.
Basement	All	To be eliminated as much as possible in the long
Flooding		term flow management and system rehabilitation
		programs. Emergency overflows or other
		protection measures are to be established to
		provide relief from basement flooding due to
		extreme events.

- 43. Page 3-16 Amend the first paragraph, second sentence to read;
- "It is in the public's best interest that the system is operated as cost effectively as possible and that the system as a whole is optimized."
- 44. Page 3-17 Amend by deleting Policy 2.
- 45. Page 4-2 Amend Table 4.1 'Core System fourth bullet' to read:
- "increase capacity in Alvin Heights pull back sewer"
- 46. Page 4-2 Amend last paragraph second sentence to read:
- "The functional capacity of the Interceptor varies depending on the rate and location of inflows and the operation of the main pumping station."
- 47. Page 4-4 Amend Table 4-2 to reflect a maximum inflow from Hemlock of 300 L/s.
- 48. Page 4-5 Amend the fourth paragraph beginning at the fourth sentence to read:
- "The system wide objectives of capturing 90% of the combined sewer system wet weather flow is met without completing separation in these areas. However, there may be a need to further reduce flows from these combined sewer areas in the future in order to support growth. Further monitoring of the flows and the effects of redevelopment within these areas are required to further assess the needs and benefits of continued sewer separation or other flow management techniques."
- 49. Page 4-5 Amend by inserting the following paragraph after paragraph 4.
- "While the need to complete the separation programs based on the CSO objectives have been identified in this plan, there may be other local reasons to complete separation. If a sewer system needs replacement the following question should be asked:
- 'What is the best means of renewing the system?'

All alternatives should be considered, including total separation through to rebuilding the system as a combined system."

- 50. Page 4-5 Amend Section 4.1.1.c so that the title reads as follows:
- "Pollution Prevention and Control" and amend all references in the document that read "Pollution Control" to "Pollution Prevention and Control".
- 51. Page 4-17 Amend Table 4.3 for the Period 1997-2001 by deleting the item
- "Orleans: Rehabilitate Gloucester-Cumberland trunk sewer".
- 52. Page 4-18 Amend Table 4.4 by changing the title to read:
- "List and Schedule of works for collectors where capacity is constrained".
- 53. Page 4-18 Amend Table 4.4 by adding Richmond Forcemain to the list.

- 54. Page 5-1 Amend the list of 'significant challenges' by adding the item:
- "review and update design, construction, and inspection practices".
- 55. Page 5-1 Amend by changing the second paragraph to read:
- "The essence of flow management as presented in this document is to ensure all options are considered in identifying the best solution that:
- protects public and environmental health; and
- minimises overall life-cycle cost of the wastewater system and associated rates."
- 56. Page 5-3 Section 5.1.1.b Add the following sentence.
- "Another target is to reduce factors that contribute to the occurrence of basement flooding."

ANNEX 'C'

INDEX OF COMMENTS RECEIVED AS OF APRIL 25, 1997

INDEX OF SUBMISSIONS

SUBMISSION NO.	NAME	CATEGORY
1	W. W. Johnston	Rural Landowner
1	Mr. William Parks	Rural Landowner
2	Mr. David J. Smith	Rural Landowner
3	Mr. Andrew Baldwin	Rural Landowner
4	Mr. Harold Higginson	Rural Landowner
5	Mr. Newill	Rural Landowner
6	Mr. Delmer Wilson	Rural Landowner
7	Mr. John Poole	Rural Landowner
8	Mr. Jeff Davis	Rural Landowner
9	D. Laidlaw	Rural Landowner
10	Mr. Marcel Bisson	Rural Landowner
11	Mr. & Mrs. William Whelan	Rural Landowner
12	Mr. Vilmars Rasa	Rural Landowner
12	Mr. Arnold C. Rice	Rural Landowner
12	Mr. William J. Seabrook	Rural Landowner
12	Mr. James Slattery	Rural Landowner
12	Mr. David Wright	Rural Landowner
13	Mrs. Ruth H. Curry	Rural Landowner
14	Andre Hauschild	Rural Landowner
15	Mr. Brian Carry	Rural Landowner
16	Kingdon Holdings Ltd.	Developer
17	Mr. Russell Craig	Rural Landowner
18	Mr. Frank Argue	Rural Landowner
19	Eric & Anne Wimberley	Rural Landowner
20	Mr. Herb Campbell	Rural Landowner
21	Deerwood Estates Partnership	Developer
22	Mr. Robert J. Higgins	Rural Landowner
23	Mr. Joseph Sladic	Rural Landowner
24	Mr. Ross Nicholson	Rural Landowner
25	Mr. Stephen P. O'Connor	Individual
26	Mr. Keith Langley	Rural Landowner
27	Mr. & Mrs. Dave Forsyth	Rural Landowner
28	Mr. Vern Rampton	Rural Landowner
29	Wilson, Prockiw Barristers & Solicitors	Rural Landowner
30	Angela & Bryon Tyler	Rural Landowner
31	Mr. David Underwood	Rural Landowner
32	Farley, Smith and Murray Surveying Ltd.	Developer

33	Mr. Nick Gulis	Rural Landowner
34	Mr. Brian Kinsella	Rural Landowner
35	Mr. Andrew Renia	Individual
36	Carolyn Robertson	Individual
37	Mr. Ken Charlebois	Urban Landowner
38	Mrs. Phyllis Thatcher	Individual
39	Matthew & Cheryl Clark	Rural Landowner
40	Mr. Mike O'Connell	Individual
41	Don Lockwood	Rural Landowner
42	Ms. Maria K. Sell	Rural Landowner
43	City of Vanier	Municipalities
44	Mr. Stephen Musy	Rural Landowner
45	Mr. Carl Killeen	Rural Landowner
46	Ms. Ann Simpson	Individual
47	Mr. Len Russell	Individual
48	Mr. Frank Marchington	Rural Landowner
49	Mr. Robert Lytle	Rural Landowner
50	Mr. Graham Hudson	Rural Landowner
51	Arn Snyder	Rural Landowner
52	Mr. T. P. Voroley	Rural Landowner
53	Mr. Tajammul Khan	Rural Landowner
54	Mr. Clarence Madhosingh	Rural Landowner
55	Mr. Ken Foulds	Rural Landowner
56	Mr. Steve Berry	Rural Landowner
57	Mr. Ken Purdy	Rural Landowner
58	Mr. Leonard W. Purdy	Rural Landowner
59	Mr. Joseph L. Purdy	Rural Landowner
60	Mr. Kenneth Brennan	Rural Landowner
61	Mr. J. G. Herbert	Rural Landowner
62	City of Ottawa	Municipalities
63	City of Ottawa	Municipalities
64	City of Ottawa	Municipalities
65	Mr. William Davidson	Developer
66	Mr. Sid Bradley	Rural Landowner
67	Ms. Grace Bell	Individual
68	A.T. and Marilyn Hansen	Rural Landowner
69	Mr. Robert Glendinning	Individual
70	David & Judith Wall	Rural Landowner
70	Mr. Lino Simioni	Rural Landowner
72		Individual
73	Mr. Mark Riley Mr. Burt Collins	Individual
74 75	H. E. Alter	Rural Landowner
75 76	M.L. McKay	Rural Landowner
76 77	Mr. Vlado Pollak	Rural Landowner
77	Mr. John Charania	Rural Landowner
78	Mr. Chris Cummins	Rural Landowner
79	Urbandale Corporation Mr. Dynason Carrenhell	Developer
80	Mr. Duncan Campbell	Urban Landowner

81	Mr. Paul Kelly	Rural Landowner
82	Dr. Louis DiRaimo	Rural Landowner
83	Donald & Lorraine Halchuk	Developer
84	Mr. Wayne Patterson	Rural Landowner
85	Leo & Stella Rouble	Rural Landowner
86	Mr. Douglas Dods	Business Owner
87	Township of Goulbourn	Municipalities
88	City of Nepean	Municipalities
89	Dianne Holmes	Regional Councillor
90	Mr. Ronald Charlebois	Developer
91	Corelean Robertson	Rural Landowner
92	Mr. Owen Colton	Rural Landowner
93	Armbro Construction Limited	Business Owner
94	Russell & Eleanor McKay	Rural Landowner
95	Revtor Company Limited	Rural Landowner
96	Mark & Michelle Bainbridge	Rural Landowner
97	Anonymous	
98	Anonymous	
99	Anonymous	Rural Landowner
100	Anonymous	Urban Landowner
101	Mr. Mike Bell	Rural Landowner
102	Ms. Tallulah Macvean	Rural Landowner
103	Mr. Donald H. Rine	Rural Landowner
104	United Aggregates Ltd.	Business Owner
105	Ottawa Macdonald-Cartier	
	International Airport Authority	Agencies
106	Mr. William Shaw	Rural Landowner
107	Ms. Mary M. Nash	Community Asso.
108	D.W. Kennedy Consulting Ltd.	Consultant
109	City of Ottawa	Municipalities
110	Lois Smith	Individual
111	R.E. Williams	Individual
112	Genstar Development Company	Developer
113	Lithwick Corp	Developer
114	Bob & Liz Metcalfe	Rural Landowner
115	Mr. Tamba Dhar	Rural Landowner
116	Qualicum/Graham Park	Community Asso.
117	Mr. Murray McComb	Urban Landowner
118	Mr. Henry Benoit	Rural Landowner
119	Ms. Barbara Rotar	Rural Landowner
120	Mr. Bob W. Hosler	Individual
121	Ms. Janet Belzile	Individual
122	Ms. Jane Berlin	Individual
123	Ms. Loraine Saumure	Rural Landowner
124	Alex Cullen	Regional Councillor
125	Chief Justice Brian Dickson (Retired)	Rural Landowner
126	Mr. Paul Kruyne	Rural Landowner
127	Simmering & Associates Ltd.	Developer

128	Centretown Citizens Ottawa Corp.	Special Interest Group
129	Mr. Jean Paul Lemay	Rural Landowner
130	Mr. Weldon Birch	Rural Landowner
131	Chris Rhodes	Individual
132	Robert van den Ham	Regional Councillor
133	Mr. Robert A. Broomfield	Rural Landowner
134	Mr. Barry Cavanagh	Rural Landowner
135	Mr. Al Crosby	Individual
136	Dianne McCormack	Individual
137	Anonymous	Rural Landowner
138	Pat and Mary Timmins	Rural Landowner
139	Alta Vista Community Association	Community Asso.
140	Mr. Leo Brown	Rural Landowner
141	Mr. Charles D. Foster	Rural Landowner
142	Ottawalk	Special Interest Group
143	Betty Hill	Regional Councillor
144	Mr. Don Wiles	Rural Landowner
145	Ottawa-Carleton Home Builders Asso.	Developer
146	Hoi and Julia Tsao	Urban Landowner
147	Ms. Ann Deugo	Rural Landowner
148	Dwight and Connie Johnson	Rural Landowner
148	Mr. Gordon Mulligan	Rural Landowner
149	History Dept. Carleton University	Institutional
150	Bonnie L. Brown	Rural Landowner
151	Ms. Diane Penney	Rural Landowner
152	Pat Chojnacki	Rural Landowner
153	Mr. Mark Foley	Rural Landowner
154	Agricultural Advisory Committee	Special Interest Group
155	Mr. Daniel Raymond	Rural Landowner
156	Terrace Corporation	Developer
157	Mr. Dale Argue	Rural Landowner
158	Dr. George W. Sander	Rural Landowner
159	Mr. Yash Paul Lamba	Rural Landowner
160	Walker, Nott, Dragicevic	Business Owner
161	Kanata Rural Conservation Group	Special Interest Group
162	Mr. Arthur Bickerstaff	Rural Landowner
163	Township of West Carleton	Municipalities
164	Mr. Dale Murphy	Rural Landowner
165	Arnold Faintuck & Asso. Ltd.	Consultant
166	Mr. William (Bill) Coady	Rural Landowner
167	Mrs. Lilli Smith	Rural Landowner
168	Mr. Ronald Walker	Rural Landowner
169	J.L. Richards & Asso. Ltd.	Consultant
170	Mr. Glenn Falls	Rural Landowner
170	Mr. Rolf Meier	Rural Landowner Rural Landowner
172	Jack and Susan McCoy	Rural Landowner Rural Landowner
173	Mr. Seaton Findlay	Urban Landowner
173 174	Mr. William S. Davidson	Rural Landowner
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175	W'I D I' D ' (0 C I' ')	D 11 1
175	Wilson, Prockiw Barristers & Solicitors	Rural Landowner
176	Gisele and Murray MacDonald	Rural Landowner
177	Bruce B. MacNabb, Ltd.	Consultant
178	Ms. Rina Petrelli	Rural Landowner
179	Ms. Mary-Ellen Kennedy	Rural Landowner
180	T.G. Otto	Rural Landowner
181	Mr. Eric Mussell	Rural Landowner
182	Paul and Grace Mussell	Rural Landowner
183	Anna and Clarence Mussell	Rural Landowner
184	J.A. Carruthers	Rural Landowner
185	Mr. Philip Smith	Rural Landowner
186	Charlene and Craig Bagshaw	Rural Landowner
186	Dan DesRoches & Lori Bustard DesRoches	Rural Landowner
186	Marc Pinault & Lise Hetu Pinault	Rural Landowner
187	Arnprior Region Federation	
	of Agriculture	Agencies
188	Novatech Engineering Consultants	Consultant
189	Novatech Engineering Consultants	Consultant
190	Dalhousie Community Association	Community Asso.
191	Mr. Ken Valcamp	Rural Landowner
192	Kanata Rural Conservation Group	Community Asso.
193	Mr. Gordon Pike	Rural Landowner
194	Mr. John J. Beaton	Urban Landowner
195	Mr. Dan Howard	Individual
196	Alice and John MacLaurin	Urban Landowner
197	Dr. Richard W. Macmillan	Rural Landowner
198	Mr. Ivan Flockton	Rural Landowner
199	North West Goulbourn Community Asso.	Community Asso.
200	H.W. Gow & J. Mathieu	Individual
201	Mr. Donald R. Borden	Rural Landowner
202	Copeland Park Community Alliance	Community Asso.
203	Community Petition	Rural Landowner
204	Richard and Henry Hobbs	Rural Landowner
205	Bernie & Georgette St. John	Rural Landowner
206	Mr. David Gladstone	Individual
207	Sherry and Gary Belding	Rural Landowner
208	A.F. & H.A. Baskin	Rural Landowner
209	Community Petition	Rural Landowner
210	Mr. John B. Wilson	Rural Landowner
211	City of Kanata	Municipalities
212	City of Kanata	Municipalities
213	Glabar Park Community Alliance	Community Asso.
214	Regional Cycling Advisory Group	Special Interest Group
214	Gary & Connie Bazil	Rural Landowner
216	Santo Zacconi	Rural Landowner
217	Ms. Vivian R. Catling	Rural Landowner
217	Mr. Waldo Hordichuk	Rural Landowner
218		
417	Association of Rural Property Owners	Special Interest Group

220	Mr. I. Doy Poll	Rural Landowner
221	Mr. J. Ray Bell Byward Market BIA	Business Group
222	Rideau Street BIA	Business Group
223	Township of Goulbourn	Municipalities
224	Ronald & Tina Clarke	Rural Landowner
225		
	Manor Park Community Asso.	Community Asso.
226	R.H. Kilburn	Rural Landowner
227	Township of Osgoode	Municipalities
228	Communities Before Bridges	Special Interest Group
229	Rideau Valley Conservation Authority	Agencies
230	Tartan Development Corp	Developer
231	J.L. Richards & Asso. Ltd.	Consultant
232	Transport 2000	Agencies
233	Tina Cockram & Stephen Farrell	Rural Landowner
234	Robert Grant & Laurel Schock	Rural Landowner
235	Transport Concepts	Special Interest Group
236	Parks Canada	Agencies
237	David & Margaret Thorsell	Rural Landowner
238	R & D Berube	Rural Landowner
239	Mr. & Mrs. Sandy Keir	Rural Landowner
240	Mr. John R. Cavanagh	Rural Landowner
241	Mr. John van Riel	Rural Landowner
242	R. Favrin	Urban Landowner
243	Save the Pinecrest Creek	
	Corridor Committee	Special Interest Group
244	City of Gloucester	Municipalities
245	Mr. Rob Shaver	Rural Landowner
246	Lori-Ann Morley	Rural Landowner
246	Mr. Ernie Simpson	Rural Landowner
246	Mr. Randy Simpson	Rural Landowner
247	Gowling, Strathy & Henderson	Business Group
248	Christine Hanrahan	Urban Landowner
249	Don Stephenson	Municipal Councillor
250	Ottawa-Carleton Board of Trade	Business Group
251	Mr. Fred Zlepnig	Rural Landowner
252	Connelly-McManus Engineering Ltd	Consultant
253	Novatech Engineering Consultants Ltd.	Consultant
254	Joan & Glenn Ilott	Rural Landowner
255	Novatech Engineering Consultants Ltd	Consultant
256	Township of Rideau	Municipalities
257	Rosalind Riseborough	Urban Landowner
258	National Capital Commission	Agencies
259	National Capital Commission	Agencies
260	Bernadine J. Harris	Rural Landowner
261	Myrna Bush	Rural Landowner
262	Donald R. Baskin	Rural Landowner
263	R.G. Essiambre & Asso.	Consultant
264	David McNicoll	Urban Landowner
∠U 1	David MCNICOII	Orban Landowner

265	Sommerset Heights BIA	Business Group
266	Gail Stewart & Others	Special Interest Group
267	Mr. Derek Chase	Urban Landowner
268	Mr. Richard Bendall	Rural Landowner
269	Glebe Community Asso.	Community Asso.
270	Gowling, Strathy & Henderson	Rural Landowner
271	Bank Street Promenade	Business Group
272	March Rural Community Asso	Community Asso.
273	Gowling, Strathy & Henderson	Rural Landowner
274	Richcraft Quality Home Bldrs	Developer
275	John & Norma Richardson	Rural Landowner
276	Sylvie Morissette	Individual
277	Public Works & Gov't Services Canada	
278		Agencies Consultant
279	The Planning Partnership	
	Township of Cumberland	Municipalities Special Interest Crown
280	Kanata Arts Advisory Cttee	Special Interest Group
281	Mr. Gordon Semple	Rural Landowner
282	Mr. Derek Oudit	Individual
283	Novatech Engineering Consultants Ltd	Consultant
284	Mr. Frank Argue	Developer
285	Terry & Danny MacHardy	Rural Landowner
286	Barbara Barr	Urban Landowner
287	Bruce & Karen Geddes	Rural Landowner
288	Laurie Curtis	Rural Landowner
289	Mr. Henri Joly	Rural Landowner
290	Mr. Scott Toll	Rural Landowner
291	Pri-Tec Int'l Inc	Consultant
292	D.R. Barker & Asso Ltd	Consultant
293	Somerset Village BIA	Business Group
294	Mr. Hugh Gribbon	Individual
295	Centretown Citizens' Community Asso.	Community Asso.
296	The Regional Group	Consultant
297	Farano Green	Consultant
298	Irv & Shirley Cockwell	Rural Landowner
299	Mr. Jack MacLaren	Rural Landowner
300	Mr. Graydon Patterson	Individual
301	Ottawa Cycling Advisory Group	Special Interest Group
302	Ottawa Pedestrian Advisory Group	Special Interest Group
303	Citizens for Safe Cycling	Special Interest Group
304	Mississippi Valley Conservation Authority	Agencies
305	Riverside Park Community Asso.	Community Asso.
306	Balys & Associates Inc	Rural Landowner
307	Arthur& Mary Van Gaal	Rural Landowner
308	Oliver, Mangione, McCalla	Consultant
309	Agriculture & Agri-Food Canada	Agencies
310	Federation of Citizens' Asso.	Community Asso.
311	King Edward Ave Task Force	Community Asso.
312	Mr. Jim Armstrong	Individual

313	Ottawa Field-Naturalists' Club	Special Interest Group
314	Mr. Al Crosby	Urban Landowner
315	Relocatable Homes Ltd	Rural Landowner
316	Ministry of Municipal Affairs & Housing	Agencies
317	Action Sandy Hill	Community Asso.
318	Robert & Huguette Copeland	Rural Landowner
319	Federation of Citizens' Asso	Community Asso.
320	Fairlawn Sod (Ottawa)	Rural Landowner
321	Ministry of Municipal Affairs & Housing	Agencies

NAME	CATEGORY	SUBMISSION NO.
Action Sandy Hill	Community Association	n 317
Agricultural Advisory Committee	Special Interest Group	154
Agriculture & Agri-Food Canada	Agencies	309
Alta Vista Community Association	Community Association	
H. E. Alter	Rural Landowner	74
Anonymous	Ruful Lundowner	97
Anonymous		98
Anonymous	Rural Landowner	99
Anonymous	Rural Landowner	137
Anonymous	Urban Landowner	100
Mr. Dale Argue	Rural Landowner	157
Mr. Frank Argue	Developer	284
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Mr. Frank Argue Armbro Construction Limited	Business Owner	93
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Mr. Jim Armstrong		
Arnold Faintuck & Asso. Ltd.	Consultant	165
Amprior Region Federation of Agriculture	Agencies	187
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Charlene and Craig Bagshaw	Rural Landowner	186
Mark & Michelle Bainbridge	Rural Landowner	96
Mr. Andrew Baldwin	Rural Landowner	3
Balys & Associates Inc	Rural Landowner	306
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Barbara Barr	Urban Landowner	86
A.F. & H.A. Baskin	Rural Landowner	208
Donald R. Baskin	Rural Landowner	262
Gary & Connie Bazil	Rural Landowner	215
Mr. John J. Beaton	Urban Landowner	194
Sherry and Gary Belding	Rural Landowner	207
Ms. Grace Bell	Individual	67
Mr. J. Ray Bell	Rural Landowner	220
Mr. Mike Bell	Rural Landowner	101
Ms. Janet Belzile	Individual	121
Mr. Richard Bendall	Rural Landowner	268
Mr. Henry Benoit	Rural Landowner	118
Ms. Jane Berlin	Individual	122
Mr.Steve Berry	Rural Landowner	56
R & D Berube	Rural Landowner	238
Mr. Arthur Bickerstaff	Rural Landowner	162
Mr. Weldon Birch	Rural Landowner	130
Mr. Marcel Bisson	Rural Landowner	10
Mr. Donald R. Borden	Rural Landowner	201
Mr. Sid Bradley	Rural Landowner	66
Mr. Kenneth Brennan	Rural Landowner	60
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Mr. Robert A. Broomfield	Rural Landowner	133

Mr. Leo Brown	Rural Landowner	140
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Byward Market BIA	Business Group	221
Mr. Duncan Campbell	Urban Landowner	80
Mr. Herb Campbell	Rural Landowner	20
J.A. Carruthers	Rural Landowner	184
Mr. Brian Carry	Rural Landowner	15
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Mr. Ken Charlebois	Urban Landowner	37
Mr. Ronald Charlebois	Developer Urban Landowner	90
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Copeland Park Community Alliance	Community Association	202
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Mr. Russell Craig	Rural Landowner	17
Mr. Al Crosby	Individual	135
Mr. Al Crosby	Urban Landowner	314
Alex Cullen	Regional Councillor	124
Mr. Chris Cummins	Rural Landowner	78
Mrs. Ruth H. Curry	Rural Landowner	13
Laurie Curtis	Rural Landowner	288
D.R. Barker & Asso Ltd	Consultant	292
D.W. Kennedy Consulting Ltd.	Consultant	108

Dalhousie Community Association	Community Association	190
Mr. William Davidson	Developer Developer	65
Mr. William S. Davidson	Rural Landowner	174
Mr. Jeff Davis	Rural Landowner	8
Deerwood Estates Partnership	Developer	21
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Mr. Tamba Dhar	Rural Landowner	115
Chief Justice Brian Dickson (Retired)	Rural Landowner	125
Dr. Louis DiRaimo	Rural Landowner	82
Mr. Douglas Dods	Business Owner	86
Fairlawn Sod (Ottawa)	Rural Landowner	320
Mr. Glenn Falls	Rural Landowner	170
Farano Green	Consultant	297
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R. Favrin	Urban Landowner	242
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Mr. Seaton Findlay	Urban Landowner	173
Mr. Ivan Flockton	Rural Landowner	198
Mr. Mark Foley	Rural Landowner	153
Mr. & Mrs. Dave Forsyth	Rural Landowner	27
Mr. Charles D. Foster	Rural Landowner	141
Mr. Ken Foulds	Rural Landowner	55
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Mr. Hugh Gribbon	Individual	294
Mr. Nick Gulis	Rural Landowner	33
H.W. Gow & J. Mathieu	Individual	200
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Christine Hanrahan	Urban Landowner	248
A.T. and Marilyn Hansen	Rural Landowner	68
Bernadine J. Harris	Rural Landowner	260
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Mr. Waldo Hordichuk	Rural Landowner	218
Mr. Bob W. Hosler	Individual	120
Mr. Dan Howard	Individual	195
Mr. Graham Hudson	Rural Landowner	50
Joan & Glenn Ilott	Rural Landowner	254
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W. W. Johnston	Rural Landowner	1
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Mr. Tajammul Khan	Rural Landowner	53
R.H. Kilburn	Rural Landowner	225
Mr. Carl Killeen	Rural Landowner	45
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Mr. Brian Kinsella	Rural Landowner	34
Mr. Paul Kruyne	Rural Landowner	126
D. Laidlaw	Rural Landowner	9
Mr. Yash Paul Lamba	Rural Landowner	159
Mr. Keith Langley	Rural Landowner	26
Mr. Jean Paul Lemay	Rural Landowner	129
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Mr. Robert Lytle	Rural Landowner	49
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M.L. McKay	Rural Landowner	75
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Mr. Graydon Patterson	Individual	300
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Mr. Vilmars Rasa	Rural Landowner	12
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Mr. Arnold C. Rice	Rural Landowner	12
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Dr. George W. Sander	Rural Landowner	158
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Ms. Maria K. Sell	Rural Landowner	42
Mr. Gordon Semple	Rural Landowner	281
Mr. Rob Shaver	Rural Landowner	245
Mr. William Shaw	Rural Landowner	106
Mr. Lino Simioni	Rural Landowner	71
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Ms. Ann Simpson	Individual	46
Mr. Ernie Simpson	Rural Landowner	246
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Mr. Joseph Sladic	Rural Landowner	23
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Mr. John van Riel	Rural Landowner	241
Mr. T. P. Voroley	Rural Landowner	52
Walker, Nott, Dragicevic	Business Owner	160
Mr. Ronald Walker	Rural Landowner	168
David & Judith Wall	Rural Landowner	70
Mr. & Mrs.William Whelan	Rural Landowner	11
Mr. Don Wiles	Rural Landowner	144
R.E. Williams	Individual	111
Mr. Delmer Wilson	Rural Landowner	6
Mr. John B. Wilson	Rural Landowner	210
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