



Office of the Auditor General / Bureau du vérificateur général

**FOLLOW-UP TO THE 2006 AUDIT OF THE WASTEWATER AND
DRAINAGE SERVICES DIVISION**

2010

**SUIVI DE LA VÉRIFICATION DE LA DIVISION DES SERVICES DE
DRAINAGE ET D'ÉPURATION DES EAUX USÉES DE 2006**

Table of Contents

EXECUTIVE SUMMARY	i
RÉSUMÉ.....	iii
1 INTRODUCTION	1
2 KEY FINDINGS OF THE ORIGINAL 2006 AUDIT OF THE WASTEWATER AND DRAINAGE SERVICES DIVISION	1
3 STATUS OF IMPLEMENTATION OF 2006 AUDIT RECOMMENDATIONS	4
4 SUMMARY OF THE LEVEL OF COMPLETION	18
5 CONCLUSION.....	19
6 ACKNOWLEDGEMENT.....	19

EXECUTIVE SUMMARY

Introduction

The Follow-up to the 2006 Audit of the Wastewater and Drainage Services Division was included in the Auditor General’s Audit Plan.

The key findings of the original 2006 audit included:

- The City is meeting all provincial regulations for wastewater management except for required staff training. Approximately 50% of the City’s wastewater staff need additional training to meet the Province’s regulations.
- Combined sanitary and storm sewers that remain in operation in the City require upgrades, however issues regarding discharges from these sewers are being managed in concert with the Province. No violation orders have been issued to the City in this area.
- The City needs an overall sewer inflow/infiltration program and wet weather strategy to better manage sewer capacity in the future.

Summary of the Level of Completion

1. The table below outlines our assessment of the level of completion of each recommendation as of December 2009.

CATEGORY	% COMPLETE	RECOMMENDATIONS	NUMBER OF RECOMMENDATIONS	PERCENTAGE OF TOTAL RECOMMENDATIONS
LITTLE OR NO ACTION	0 – 24	12, 19	2	11%
ACTION INITIATED	25 – 49	-	-	-
PARTIALLY COMPLETE	50 – 74	-	-	-
SUBSTANTIALLY COMPLETE	75 – 99	3, 4, 5, 7, 16	5	26%
COMPLETE	100	1, 2, 6, 8, 9, 10, 11, 13, 14, 15, 17, 18	12	63%
TOTAL			19	100%

2. The table below outlines management’s assessment of the level of completion of each recommendation as of Summer 2010 in response to the OAG’s assessment. These assessments have not been audited.

CATEGORY	% COMPLETE	RECOMMENDATIONS	NUMBER OF RECOMMENDATIONS	PERCENTAGE OF TOTAL RECOMMENDATIONS
LITTLE OR NO ACTION	0 – 24	-	-	-
ACTION INITIATED	25 – 49	-	-	-
PARTIALLY COMPLETE	50 – 74	-	-	-
SUBSTANTIALLY COMPLETE	75 – 99	3, 4, 5, 7, 12, 16	6	32%
COMPLETE	100	1, 2, 6, 8, 9, 10, 11, 13, 14, 15, 17, 18, 19	13	68%
TOTAL			19	100%

Conclusion

The Wastewater and Drainage Services Division (WDSO) has made substantial progress since the fieldwork phase of the original audit in 2006. The Division has acted on all of the recommendations, and WDSO and ISB have developed strategic plans and timelines, which have or will lead to the complete implementation of all the OAG’s recommendations.

After reviewing the information provided by WDSO, it is apparent that the Division has acted on the recommendations, and is continually striving to improve in all areas and stay current with all regulations and best management practices.

Acknowledgement

We wish to express our appreciation for the cooperation and assistance afforded the audit team by management.

RÉSUMÉ

Introduction

Le Suivi de la vérification de la Division des services de drainage et d'épuration des eaux usées de 2006 était prévu dans le Plan de vérification du vérificateur général.

Les principales constatations de la vérification de 2006 sont les suivantes :

- La Ville se conforme à tous les règlements provinciaux en matière de gestion des eaux usées, sauf pour ce qui est de la formation du personnel. Environ 50 p. 100 du personnel municipal qui s'occupe de gérer les eaux usées doit recevoir plus de formation si la Ville veut satisfaire aux règlements provinciaux.
- Les égouts unitaires encore en usage dans la Ville ont besoin d'être modernisés. Cependant, l'examen signale que les rejets qui émanent de ces égouts sont gérés conformément aux exigences de la Province et que la Ville n'a fait l'objet d'aucune contravention à cet égard.
- La Ville doit mettre en place un programme global de captage et d'infiltration dans les égouts et une stratégie pour temps pluvieux afin de mieux gérer la capacité des égouts dans le futur.

Sommaire du degré d'achèvement

1. Le tableau ci-dessous présente notre évaluation du degré d'achèvement de chaque recommandation au mois de décembre 2009 :

CATÉGORIE	POURCENTAGE COMPLÉTÉ	RECOMMANDATIONS	NOMBRE DE RECOMMANDATIONS	POURCENTAGE DU TOTAL DES RECOMMANDATIONS
PEU OU PAS DE MESURES PRISES	0 – 24	12, 19	2	11 %
ACTION AMORCÉE	25 – 49	-	-	-
COMPLÉTÉE EN PARTIE	50 – 74	-	-	-
PRATIQUEMENT COMPLÉTÉE	75 – 99	3, 4, 5, 7, 16	5	26 %
COMPLÉTÉE	100	1, 2, 6, 8, 9, 10, 11, 13, 14, 15, 17, 18	12	63 %
TOTAL			19	100 %

2. Le tableau ci-dessous présente l'évaluation de la direction concernant le degré de réalisation de chaque recommandation à l'été 2010 en réponse à l'évaluation du Bureau du vérificateur général. Ces évaluations n'ont pas fait l'objet d'une vérification.

CATÉGORIE	POURCENTAGE COMPLÉTÉ	RECOMMANDATIONS	NOMBRE DE RECOMMANDATIONS	POURCENTAGE DU TOTAL DES RECOMMANDATIONS
PEU OU PAS DE MESURES PRISES	0 – 24	-	-	-
ACTION AMORCÉE	25 – 49	-	-	-
COMPLÉTÉE EN PARTIE	50 – 74	-	-	-
PRATIQUEMENT COMPLÉTÉE	75 – 99	3, 4, 5, 7, 12, 16	6	32 %
COMPLÉTÉE	100	1, 2, 6, 8, 9, 10, 11, 13, 14, 15, 17, 18, 19	13	68 %
TOTAL			19	100 %

Conclusion

La Division des services de drainage et d'épuration (DSDE) a réalisé des progrès importants depuis la phase du travail sur le terrain de la vérification originale en 2006. La Division a pris des mesures relativement à toutes les recommandations et elle a, de concert avec la DSI, élaboré des plans stratégiques et établi des échéanciers, qui ont mené ou mèneront à la mise en œuvre complète de toutes les recommandations du Bureau du vérificateur général.

Après avoir examiné les renseignements fournis par la DSDE, il est clair que cette dernière a pris des mesures relativement aux recommandations et qu'elle s'efforce continuellement de s'améliorer dans tous les secteurs et de se tenir au fait des règlements et des meilleures pratiques de gestion.

Remerciements

Nous tenons à remercier la direction pour la coopération et l'assistance accordées à l'équipe de vérification.

1 INTRODUCTION

The Follow-up to the 2006 Audit of the Wastewater and Drainage Services Division was included in the Auditor General's Audit Plan.

The key findings of the original 2006 audit included:

- The City is meeting all provincial regulations for wastewater management except for required staff training. Approximately 50% of the City's wastewater staff need additional training to meet the Province's regulations.
- Combined sanitary and storm sewers that remain in operation in the City require upgrades, however issues regarding discharges from these sewers are being managed in concert with the Province. No violation orders have been issued to the City in this area.
- The City needs an overall sewer inflow/infiltration program and wet weather strategy to better manage sewer capacity in the future.

2 KEY FINDINGS OF THE ORIGINAL 2006 AUDIT OF THE WASTEWATER AND DRAINAGE SERVICES DIVISION

1. The WSD meets all federal and provincial guidelines, standards and regulations, with the exception of operator training.

- The City's wastewater system meets all guidelines and regulations with the exception of operator training required as defined under the provincial certification process. Licensed Wastewater Treatment and Wastewater Collection Operators in WSD are required to undergo a minimum amount of training on an annual basis as per provincial regulations. Over 55% of the WSD Certified Operators did not meet the minimum of 40 hours of training in 2005.

2. The City does not have an overall sewer inflow and infiltration reduction strategy.

- The City does not have a dedicated program or any dedicated resource to address inflow and infiltration into the sanitary sewer system. Large quantities of inflow and infiltration from surface runoff or groundwater go into the sewer conveyance system (sewers) and can have numerous detrimental consequences, including:
 - reduce the available capacity in the sewers,
 - impacts the pumping capacity at pumping stations,
 - reduce the treatment capacity at the wastewater treatment facility,
 - increase operating costs,
 - generate sewer backups, and
 - generate sewer overflows to receiving streams.

- Although there is no dedicated inflow and infiltration reduction program, the City does address inflow and infiltration through a number of other capital infrastructure programs related to the sewer fund. Many individual inflow and infiltration problems are corrected through the integrated road/water/sewer infrastructure replacement or rehabilitation projects.
 - An overall wet weather flow management study should be undertaken for the City. An inflow and infiltration strategy should be a component of the wet weather flow management study.
 - Data collection related to inflow and infiltration has been focused on areas of highest concern, such as areas where basement flooding has occurred. There is no current strategy to collect the data needed to understand the overall inflow and infiltration impact on the City's sanitary sewer system.
 - Resources have been dedicated to try and meet known sewer backup problems. Recent sewer rate adjustments have provided capital investment for infrastructure improvements. The focus of sewer infrastructure improvements has been on large inflow problems or sewer capacity issues.
 - Current flow monitoring data is being tabulated more for system growth or storm flooding events as opposed to specific inflow and infiltration issues.
 - The City should gain a better understanding of the private sewer systems that discharge into the municipal system, including their impact on inflow and infiltration.
- 3. The City's R.O. Pickard Environmental Centre is an efficiently operated and maintained facility.**
- The R.O. Pickard Environmental Centre is classified at a level 4 (highest level) facility by the provincial Ministry of the Environment and meets all treatment and environmental discharge regulatory requirements.
 - The co-generation facility at the R.O. Pickard Centre is considered a "best-in-class" operation within the wastewater industry.
 - The R.O. Pickard Environmental Centre is expanding (new digesters) to meet greater wastewater flow requirements in the immediate future.
- 4. The amalgamation of the City's 75+ sanitary and storm pumping stations has been efficient.**
- An inventory and condition assessment of all pumping station facilities and equipment was undertaken over the last four years and programs are in place to replace or rehabilitate equipment as required over the next ten plus years.

- The amalgamation of the sanitary and stormwater pumping stations across the City has proceeded with little impact to customers or the environment.
 - The City has implemented a new Supervisory Control and Data Acquisition system for all pumping stations, allowing these facilities to be operated and maintained more efficiently.
 - The fact that the WSD has been able to centralize the operation of all of these pumping stations and implement a comprehensive operations and maintenance plan in such a short time frame is commendable.
 - The Construction Services Division within the Infrastructure Services Branch has provided excellent engineering and construction management support to the WSD during the program to consolidate the operations and maintenance of the pumping stations.
- 5. The City's combined sewer system requires upgrades to meet the provincial Ministry of the Environments Procedure F-5-5.**
- The Ontario Ministry of the Environment (MOE) implemented a procedure in the mid 1990's for municipalities to deal with combined sewer systems and their associated overflows to receiving streams.
 - The City has a plan in place to meet key components of MOE Procedure F-5-5, referred to as the Real Time Control Program. This program is meant to replace the previous Somerset Street storage tunnel, at a lower overall cost, and in a shorter time period.
 - The City still has to address a number of other components of MOE Procedure F-5-5, including a Pollution Prevention and Control Plan.
- 6. The amalgamation of WSD Wastewater Collection Section is a continual improvement process.**
- During the past five years, sewer operations and maintenance staff of the Wastewater Collection Unit have undergone numerous changes, including: recentralizing their operations from the City's Bayview Yards to the R.O. Pickard Environmental Centre; restructuring from five groups to three groups to two groups (East & West split); and staff training on new systems for maintenance management, human resources, procurement and finance.
 - Sewer maintenance activities in this unit continue to be more reactive than proactive as staffing levels cannot keep pace with workload. In 2005, City Council approved an additional 11 staff for the WSD, of which 6 are to be assigned to the Wastewater Collection Unit to meet workload issues. As of late summer 2006, some of the vacant supervisory positions had been filled internally, but eleven positions remain open. Management is actively working towards filling these positions.

- Maintenance activities on the sewer system are completed by various groups across the City.
- 7. The City's stormwater management facilities and rural drainage responsibilities are well operated.**
- The amalgamation of all municipal drains into one section within the City was completed smoothly.
 - The operations of the City's municipal drains meet all regulatory requirements, are well documented and are considered "best-in-class".
 - The operations of the City's stormwater management facilities meet all regulatory requirements. The Stormwater Management Unit within WSDS has a good inventory database of all 160+ public and private stormwater management facilities across the City. Design standards for new stormwater management facilities are in place. Approximately 10 new stormwater management facilities come on line each year.
- 8. Accountability for the operation and maintenance of the City's wastewater system is dispersed, with only the Deputy City Manager of Public Works and Services having overall responsibility.**
- The operations and maintenance of the City's wastewater system is dispersed between various divisions in the Utility Services Branch and the Infrastructure Services Branch.
 - Both Utility Services and Infrastructure Services claim overall responsibility for the sewer system. It is recommended that overall responsibility for the operations and maintenance of the wastewater system be clarified below the level of Deputy City Manager, and that units not directly reporting to the lead organization be accountable to it via service level agreements.

3 STATUS OF IMPLEMENTATION OF 2006 AUDIT RECOMMENDATIONS

2006 Recommendation 1

That WSDS continually update and closely monitor their staff training regulatory requirements to make certain these are met.

2006 Management Response

Management agrees with this recommendation. The Training Coordinator now meets with the Divisional Management Team on a monthly basis to review the training plan and monitor progress to ensure that all certified operators receive the required training.

Management Representation of the Status of Implementation of Recommendation 1 at October 2009

Implementation of this recommendation is complete. A routine review of status is in place. Year to date training hours indicate that we should easily achieve the required number of training hours.

Management: % complete *100%*

OAG's Follow-up Audit Findings regarding Recommendation 1

The WDSD provided detailed documentation illustrating the WDSD is closely monitoring their staff training requirements. These documents also indicated that staff are receiving the required amount of training each year as a minimum, and in most cases staff receive more than 40 hours of training a year.

OAG: % complete *100%*

2006 Recommendation 2

That City-wide decisions with regards to reducing staff training or restriction on staff travel consider the regulatory training requirements of staff in both WDSD and the Drinking Water Services Division.

2006 Management Response

Management agrees with this recommendation. The Training Coordinator, through the Divisional management team, will ensure all regulatory requirements are satisfied and completed. Quarterly reports will be received to monitor the number of training hours to ensure full compliance with training requirements.

Management Representation of the Status of Implementation of Recommendation 2 at October 2009

Implementation of this recommendation is complete. Bi-weekly meetings with the Training Coordinator are held for the purpose of reviewing the training plans.

Management: % complete *100%*

OAG's Follow-up Audit Findings regarding Recommendation 2

Quarterly reports on the current training status of the employees are being reported to the Training Coordinator. Employees are in full compliance with training requirements.

OAG: % complete *100%*

2006 Recommendation 3

That the City develop a Wet Weather Flow Management Strategy.

2006 Management Response

Management agrees with this recommendation. This is an initiative that has been identified by the Infrastructure Services Branch as part of the overall asset management program for the wastewater and stormwater systems. Commencement of this project is anticipated in 2008. The cost of the project will be estimated once the scope has been defined.

Management Representation of the Status of Implementation of Recommendation 3 as of October 2009

A consultant has been retained to assist with completing the Wet Weather Infrastructure Management Plan. The assignment is expected to be complete in Q4 2009.

Management: % complete *75%*

OAG's Follow-up Audit Findings regarding Recommendation 3

The OAG agrees with management's status of implementation. The City has taken appropriate action by hiring a consultant to develop a Wet Weather Flow Management Strategy and it will be the City's responsibility to follow the strategy upon completion.

OAG: % complete *75%*

Management Representation of Status of Implementation of Recommendation 3 as of Summer 2010

Management agrees with the OAG's follow-up audit finding as of September 2009.

Development of the plan is ongoing. Given the scope of the Wet Weather Infrastructure Management Plan, a phased approach is being applied with Phase 1 focused on mapping out activities against key objectives, Phase 2 looking at gaps and prioritization of activities, and Phase 3 development of an action plan with implementation of various activities undertaken as subsequent phases. Phases 1 to 3 are expected to be completed in Q4 2010 and a report to Planning and Environment Committee is planned for Q1 2011. Implementation of specific activities under the action plan would follow.

Management: % complete *75%*

2006 Recommendation 4

That WDSB conduct an inflow and infiltration study of the overall sanitary sewer system to address sewer capacity and system integrity issues.

2006 Management Response

Management agrees with this recommendation. This initiative will be led by the Infrastructure Services Branch in close collaboration with the Wastewater and

Drainage Services Division of the Utility Services Branch. The recommendation will be included in the Wet Weather Flow Management Strategy for 2008. Cost estimates will be determined once scope has been defined.

Management Representation of the Status of Implementation of Recommendation 4 as of October 2009

A consultant has been retained to complete an inflow and infiltration study that will address sewer capacity and system integrity issues. The report is expected to be complete in Q4 2009.

Management: % complete 75%

OAG's Follow-up Audit Findings regarding Recommendation 4

The OAG agrees with management's status of implementation. The City has taken appropriate action by hiring a consultant to develop a Wet Weather Flow Management Strategy which will include an inflow and infiltration study and address sewer capacity and integrity issues.

OAG: % complete 75%

Management Representation of Status of Implementation of Recommendation 4 as of Summer 2010

Management agrees with the OAG's follow-up audit finding as at September 2009.

The City has hired a consultant to develop a Wet Weather Flow Management Strategy, which will include an inflow and infiltration study and address sewer capacity and integrity issues.

This information will be included in a report to the Planning and Environment Committee in Q1 2011. Implementation of specific activities under the action plan will follow.

Management: % complete 75%

2006 Recommendation 5

That WDSO bring forward a report to City Council addressing all elements of their inflow and infiltration reduction strategies, including:

- a) Inflow and infiltration data capture and monitoring;
- b) Sewer system analysis;
- c) Sewer system remediation plan development; and
- d) Sewer system remediation plan implementation.

2006 Management Response

Management agrees with this recommendation. This initiative will be led by the Infrastructure Services Branch in close collaboration with the Wastewater and Drainage Services Division of the Utility Services Branch. These elements will be included in the Wet Weather Flow Management Strategy that will be initiated in 2008. Costs will be identified once the scope has been defined.

Management Representation of the Status of Implementation of Recommendation 5 as of October 2009

A consultant has been retained to assist with completing the Wet Weather Infrastructure Management Plan which will address the element aforementioned in the recommendation. The assignment is expected to be complete in Q4 2009.

Management: % complete *75%*

OAG's Follow-up Audit Findings regarding Recommendation 5

The OAG agrees with management's status of implementation. The City has taken appropriate action by hiring a consultant to develop a Wet Weather Flow Management Strategy which will include an inflow and infiltration study, address sewer capacity and integrity issues and development of a remediation plan. It is the OAG's belief that once the assignment is complete it will be presented to Council and that Council will routinely be updated on all the elements of the inflow and infiltration reduction study.

The WDSB and ISB have taken a proactive approach regarding remediation plan development and remediation plan implementation. By reviewing previous studies regarding inflow and infiltration in combination with the Residential Protection Plumbing Program and the CCTV program the WDSB and ISB have identified ways they can reduce inflow, have replaced various structures and made changes to the system throughout Ottawa to reduce extraneous inflow.

OAG: % complete *75%*

Management Representation of Status of Implementation of Recommendation 5 as of Summer 2010

Management agrees with the OAG's follow-up audit finding as at September 2009.

The City has hired a consultant to develop a Wet Weather Flow Management Strategy, which will include an inflow and infiltration study and address sewer capacity and integrity issues.

This information will be included in a report to the Planning and Environment Committee in Q1 2011. Implementation of specific activities under the action plan will follow.

Management: % complete *75%*

2006 Recommendation 6

That WSDS identify a specific group to lead and be responsible for all inflow and infiltration reduction programs.

2006 Management Response

Management disagrees with this recommendation. Responsibility for these programs rests with the Infrastructure Services Branch. Collaboration with the appropriate operating group is a well-established protocol.

Management Representation of the Status of Implementation of Recommendation 6 at October 2009

Implementation of this recommendation is 100% complete. Further to discussion at a meeting on November 21, 2007 with the City Manager, the Auditor General indicated that he accepted the management response.

Management: % complete **100%**

OAG's Follow-up Audit Findings regarding Recommendation 6

The OAG accepts management's response. Infrastructure Services is now responsible for all inflow and infiltration reduction programs. WSDS is no longer responsible to lead inflow and infiltration reduction programs.

OAG: % complete **100%**

2006 Recommendation 7

That WSDS proceed with the Real Time Control Program to bring the City into compliance with key components of Ministry of the Environment (MOE) Procedure F-5-5.

2006 Management Response

Management agrees with the recommendation. This initiative will be led by the Infrastructure Services Branch in close collaboration with the Wastewater and Drainage Services Division of the Utility Services Branch. Detailed design work is underway with construction planned for 2007 and 2008. It is estimated it will cost \$18M for implementation of this program with \$13M identified in the 2007 budget and \$5M in 2008.

Management Representation of the Status of Implementation of Recommendation 7 at October 2009

Construction of the Rideau Canal regulator was complete in June 2009 and commissioning will be complete in Q4 2009. Construction of the Keefer and Cathcart regulators will be completed in September 2009 and commissioning completed in October 2009. The West End regulators were tendered for construction in June 2009 and construction is expected to start in the middle of

October. These regulators are expected to be commissioned in early 2010. The City is awaiting funding confirmation from the Federal Government for their 1/3 share of the West End regulator project. All works are expected to be commissioned Q2 2010.

Management: % complete **80%**

OAG's Follow-up Audit Findings regarding Recommendation 7

The OAG agrees with management's status. The Real Time Control Program is on schedule and should be completed in 2010. This will help bring the City into compliance with key components of the MOE's Procedure F-5-5. The OAG suggest in the future expanding the Real Time Control Program to include all regulators.

OAG: % complete **80%**

Management Representation of Status of Implementation of Recommendation 7 as of Summer 2010

Management agrees with the OAG's follow-up audit finding as of September 2009. Further progress has been made with respect to the implementation of this recommendation as all regulators will be on real-time control by October 2010.

Management considers implementation of this recommendation to be substantially complete.

Management: % complete **90%**

2006 Recommendation 8

That WDSO provide yearly combined Sewer overflow monitoring reports to City Council and the MOE.

2006 Management Response

Management agrees with this recommendation. Wastewater and Drainage Services will comply with all mandatory reporting requirements, which have not yet been established. Commencement of this report is anticipated for 2008 and annually thereafter.

Management Representation of the Status of Implementation of Recommendation 8 at October 2009

Implementation of this recommendation is 100% complete. August 2008 - the 2007 CSO Annual Report was submitted to the MOE and Council in the Second Quarter. This is an ongoing item of work and is considered complete.

Management: % complete **100%**

OAG's Follow-up Audit Findings regarding Recommendation 8

The WSD has provided CSO Annual Reports to the MOE and to City Council and intends to continually produce and submit reports. Also the WSD has implemented a protocol that ensures the all spills and overflows are reported in a timely fashion to the proper groups and personnel.

OAG: % complete **100%**

2006 Recommendation 9

That WSD develop a Pollution Prevention and Control Plan that meets the needs of the City and the requirements of MOE Procedure F-5-5.

2006 Management Response

Management agrees with this recommendation. Preparation of the plan and required infrastructure is actively in development with ISB as the lead and support from the operating branches. This initiative is anticipated to be completed in 2008.

Management Representation of the Status of Implementation of Recommendation 9 at October 2009

Implementation of this recommendation is 100% complete. The pollution provision control plan was submitted to the MOE in November 2008.

Management: % complete **100%**

OAG's Follow-up Audit Findings regarding Recommendation 9

The OAG agrees with management's status of implementation. The ISB completed a combined sewer area pollution prevention and control plan November 21, 2008 which was submitted to the MOE.

OAG: % complete **100%**

2006 Recommendation 10

That Wastewater Collection Unit fill vacant positions as soon as possible.

2006 Management Response

Management agrees with this recommendation. All vacancies within the Wastewater Collection Unit have been filled.

Management Representation of the Status of Implementation of Recommendation 10 at October 2009

Implementation of this recommendation is 100% complete. The WSD has filled all 22 vacancies and currently has a total of 161 Full-time Equivalents.

Management: % complete **100%**

OAG's Follow-up Audit Findings regarding Recommendation 10*OAG: % complete****100%***

2006 Recommendation 11

That WSDS complete a condition assessment of all access holes and catch basins to allow maintenance, rehabilitation or replacement prioritization.

2006 Management Response

Management agrees with this recommendation. However, it is noted that the assessment is completed by the Infrastructure Management Division of the Infrastructure Services Branch, as part of their overall asset management mandate.

The condition of manholes is assessed as part of the ongoing closed circuit television surveys of the wastewater and stormwater systems. The system inspection is undertaken as part of the development of annual infrastructure rehabilitation projects and the frequency is targeted for a 10 to 15 year inspection cycle.

Management Representation of the Status of Implementation of Recommendation 11 at October 2009

Implementation of this recommendation is 100% complete. This is part of the ongoing closed circuit television surveys conducted by the Infrastructure Management Division.

*Management: % complete****100%***

OAG's Follow-up Audit Findings regarding Recommendation 11

It is clear from the information provided that WSDS is notified of structures that need repair/replacement which have been identified by the CCTV program and other ISD infrastructure programs. The WSDS schedules and completes the required work in acceptable and time. The OAG believes implementation of this recommendation is 100% complete.

*OAG: % complete****100%***

2006 Recommendation 12

That Public Works and Services conduct periodic audits on newly commissioned sewer and drinking water infrastructure to provide appropriate feedback to the Construction Services - Development Division for their role in commissioning of infrastructure.

2006 Management Response

Management agrees with this recommendation. A periodic inspection of some newly commissioned systems will provide constructive support to Construction Services starting in 2007.

Management Representation of the Status of Implementation of Recommendation 12 at October 2009

The recent filling of nine vacant positions will enable the start of the inspection of a randomly selected subset of new wastewater infrastructure. These maintenance workers have now been hired and are in the process of being trained. It is expected that the inspection of new wastewater infrastructure will commence in Q4 2009.

Management: % complete 50%

OAG's Follow-up Audit Findings regarding Recommendation 12

The OAG has not received any documentation regarding periodic audits on newly commissioned sewer and drinking water infrastructure or the hiring and training of employees for this specific task.

OAG: % complete 0%

Management Representation of Status of Implementation of Recommendation 12 as of Summer 2010

Management agrees with the OAG's follow-up audit finding. Further progress has been made with respect to the implementation of this recommendation.

WDO began the inspection of wastewater infrastructure prior to commissioning in late summer 2009. At this time, periodic and random inspections of some projects have been completed, but the feedback has not been provided to both Planning and Growth Management and/or Infrastructure Services. In 2010, Council approved new dedicated positions specifically for this function. With the additional capacity of dedicated resources, expected to be in place in late 2010, the Branch will be able to bring the recommendation to 100%.

Management considers implementation of this recommendation to be substantially complete.

Management: % complete 90%

2006 Recommendation 13

That staff training within the Wastewater Collection Unit continue to be a priority to satisfy regulatory requirement and the WDSO goals for appropriate cross-training.

2006 Management Response

Management agrees with this recommendation. Currently, the Training Coordinator is collaboratively developing a strategic training plan within the USB divisions.

Management Representation of the Status of Implementation of Recommendation 13 at October 2009

Implementation of this recommendation is 100% complete. All certified staff received at least 40 hours of training in 2007, in accordance with MOE regulations.

Management: % complete 100%

OAG's Follow-up Audit Findings regarding Recommendation 13

OAG agrees with management's status of implementation, staff are receiving 40 hours of training a year as required by the MOE. Employees are exposed to a wide variety of courses which illustrates the commitment to cross-training.

OAG: % complete 100%

2006 Recommendation 14

That WSDS provide the minimum amount of yearly training to all provincially certified operators within the Division.

2006 Management Response

Management agrees with this recommendation. The Training Coordinator now meets with the Divisional management team on a monthly basis to review the training plan and monitor progress to ensure that all certified operators receive the required training.

Management Representation of the Status of Implementation of Recommendation 14 at October 2009

Implementation of this recommendation is 100% complete. A routine review of training status is in place. Year to date training hours indicate that we should easily achieve the required number of training hours this year.

Management: % complete 100%

OAG's Follow-up Audit Findings regarding Recommendation 14

The OAG agrees with management's status of implementation. All provincially certified operators within the Division receive the minimum amount of training required. In fact most operators receive more than the minimum amount of training.

OAG: % complete 100%

2006 Recommendation 15

That Corporate Occupational Health and Safety monitor changes to the Occupational Health and Safety Act, and provide all operating groups with possible impacts on their facilities and operations.

2006 Management Response

Management agrees with this recommendation. Roles will be defined with the Corporate Occupational Health and Safety and USB to develop Service Level Agreements to facilitate USB needs, which will be lead by the Training Coordinator in 2007.

Management Representation of the Status of Implementation of Recommendation 15 at October 2009

Implementation of this recommendation is 100% complete. Occupational Health and Safety Division will continue to monitor OH&S Act related regulatory changes on a regular basis, and update Wastewater and Drainage Services Division management on changes, and potential impacts on their facilities and operations, as required.

Management: % complete **100%**

OAG's Follow-up Audit Findings regarding Recommendation 15

OAG agrees management's status of implementation. The formation of a Joint Health and Safety Committee will help ensure any changes to the Occupational Health and Safety Act will not go unnoticed and that proper groups are informed.

OAG: % complete **100%**

2006 Recommendation 16

That the Utility Services Branch consider a full Quality Management System (QMS) for all environmental programs (Water, Wastewater, Biosolids, and Solid Waste).

2006 Management Response

Management agrees with this recommendation. A Quality Management System (QMS) was implemented for Biosolids management in 2005. Drinking Water Services is implementing a QMS starting in 2007 for completion by Q4 2008. Wastewater and Drainage Services and, Solid Waste will be considered for a Quality Management System in 2009 once the QMS for Drinking Water Services has been completed including identifying the required resources to implement and maintain.

Management Representation of the Status of Implementation of Recommendation 16 at October 2009

Wastewater and Drainage Operations is currently designing an ISO-14001 based environmental management system. It is anticipated that the system will be in full operation by the end of 2010.

Management: % complete **75%**

OAG's Follow-up Audit Findings regarding Recommendation 16

The Utility Services Branch is acting in a proactive manner and has completed or is in the process of completing Quality Management Systems for all environmental programs. The Drinking Water Services QMS is nearing completion and the QMS for Wastewater and Drainage Services has been initiated. It appears as if USB will proceed with a QMS for Solid Waste next in the near future once budgeting is in place.

OAG: % complete *75%*

Management Representation of Status of Implementation of Recommendation 16 as of Summer 2010

Management agrees with the OAG's follow-up audit finding as of September 2009.

Further progress has been made with respect to the implementation of this recommendation.

Environmental Services has established a process for the completion of Quality Management Systems for all environmental programs. The Drinking Water Services QMS was completed in 2009 and the QMS for Wastewater and Drainage services is in development. A QMS for Solid Waste will proceed in the near future.

Management considers implementation of this recommendation to be substantially complete.

Management: % complete *90%*

2006 Recommendation 17

That the Utility Services Branch keep City Council informed on the status of regulatory QMS requirements, and on internal QMS programs that are not required through regulations.

2006 Management Response

Management agrees with this recommendation. The Branch management team will review requirements on the regulatory QMS programs and will report as required including non-regulated programs.

Management Representation of the Status of Implementation of Recommendation 17 at October 2009.

Implementation of this recommendation is 100% complete. No changes to report at this time. Utility Services Branch will report any changes on an ongoing basis as required.

Management: % complete *100%*

OAG's Follow-up Audit Findings regarding Recommendation 17

Documents provided by the USB which were presented to City Council demonstrate the frequent communications between USB and City Council in regards to status and changes concerning regulatory and internal QMS.

OAG: % complete

100%

2006 Recommendation 18

That the overall operations and maintenance of the wastewater system be reviewed to ensure accountability of an individual below the level of Deputy City Manager.

2006 Management Response

Management disagrees with this recommendation. USB and ISB understand their respective responsibilities and accountability. USB through the Wastewater and Drainage Services Division is accountable for the operation and maintenance of the sewer system. The Infrastructure Management Division of ISB is responsible for the asset management of the linear pipe network. Both groups work cooperatively to ensure that overall services are delivered effectively under the general direction of the Deputy City Manager of PWS.

Management Representation of the Status of Implementation of Recommendation 18 at October 2009

Implementation of this recommendation is 100% complete. The OAG has accepted that the organization has been reviewed and that the roles have been agreed upon.

Management: % complete

100%

OAG's Follow-up Audit Findings regarding Recommendation 18

OAG agrees with management's status of implementation, this recommendation is complete.

OAG: % complete

100%

2006 Recommendation 19

That the City ensure the allocation of costs to the sewer are consistent with current costs and are in compliance with provincial requirements.

2006 Management Response

Management agrees with this recommendation. Through the budget and long range financial planning processes the department advises City Council on the cost allocations associated with the sewer systems and compliance for provincial requirements. The substantiation of proposed cost allocations will be tabled with City Council as part of the 2007 budget process.

Management Representation of the Status of Implementation of Recommendation 19 at October 2009

Completed: Finance completed a review of the allocations for 2008 and the revised cost allocations were reflected in the 2008 draft tax supported budget document. In 2007 Finance proposed to identify the recovery costs within the departments that provide the services identified in the first and second categories, making the true administrative charge allocation more understandable and more transparent. These revised cost allocations were also reflected in the draft tax supported budget document and will also be reflected in the 2008 rate budget to be tabled.

Management: % complete **100%**

OAG's Follow-up Audit Findings regarding Recommendation 19

OAG did not receive sufficient information to confirm the assessment of progress made by the Wastewater and Drainage Division.

OAG: Response % complete **0%**

Management Representation of Status of Implementation of Recommendation 19 as of Summer 2010

Management disagrees with the OAG's follow-up audit finding.

Finance completed a review of the allocations for 2008 to ensure the allocation of costs to the sewer system were consistent with current costs and were in compliance with provincial requirements. Revised cost allocations were reflected in the 2008 draft tax supported budget document.

This information also informed the 2009 and 2010 budgets and can be found at Ottawa.ca, under *Budget 2008, 2009 and 2010*.

Management considers implementation of this recommendation to be complete.

Management: % complete **100%**

4 SUMMARY OF THE LEVEL OF COMPLETION

1. The table below outlines our assessment of the level of completion of each recommendation as of December 2009.

CATEGORY	% COMPLETE	RECOMMENDATIONS	NUMBER OF RECOMMENDATIONS	PERCENTAGE OF TOTAL RECOMMENDATIONS
LITTLE OR NO ACTION	0 – 24	12, 19	2	11%
ACTION INITIATED	25 – 49	-	-	-
PARTIALLY COMPLETE	50 – 74	-	-	-
SUBSTANTIALLY COMPLETE	75 – 99	3, 4, 5, 7, 16	5	26%
COMPLETE	100	1, 2, 6, 8, 9, 10, 11, 13, 14, 15, 17, 18	12	63%
TOTAL			19	100%

2. The table below outlines management's assessment of the level of completion of each recommendation as of Summer 2010 in response to the OAG's assessment. These assessments have not been audited.

CATEGORY	% COMPLETE	RECOMMENDATIONS	NUMBER OF RECOMMENDATIONS	PERCENTAGE OF TOTAL RECOMMENDATIONS
LITTLE OR NO ACTION	0 – 24	-	-	-
ACTION INITIATED	25 – 49	-	-	-
PARTIALLY COMPLETE	50 – 74	-	-	-
SUBSTANTIALLY COMPLETE	75 – 99	3, 4, 5, 7, 12, 16	6	32%
COMPLETE	100	1, 2, 6, 8, 9, 10, 11, 13, 14, 15, 17, 18, 19	13	68%
TOTAL			19	100%

5 CONCLUSION

The Wastewater and Drainage Services Division (WSD) has made substantial progress since the fieldwork phase of the original audit in 2006. The Division has acted on all of the recommendations, and WSD and ISB have developed strategic plans and timelines, which have or will lead to the complete implementation of all the OAG's recommendations.

After reviewing the information provided by WSD, it is apparent that the Division has acted on the recommendations, and is continually striving to improve in all areas and stay current with all regulations and best management practices.

6 ACKNOWLEDGEMENT

We wish to express our appreciation for the cooperation and assistance afforded the audit team by management.