

AUDIT COMMITTEE- JUNE 20, 2006

INTERNAL AUDIT REPORT OF MELVILLE PARK AND SURROUNDING SCHOOLS

Recommendation

The City Auditor recommends :

That the Internal Audit Report of Melville Park and Surrounding Schools be received.

Economic Impact

Internal Auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes.

The value added by Internal Audit has economic impact, some of which is measurable while others are not. Internal Audit has a positive impact on all areas of City activity which are audited.

The audit confirmed that the City incurred the necessary costs in exercising "due diligence" in the handling of the soil and groundwater conditions of Melville Park and surrounding schools in ensuring that public safety was not at risk.

Purpose

To present to the Audit Committee the Internal Audit Report of Melville Park and Surrounding Schools

Background - Analysis and Options

This audit was requested by the City Manager and was not part of the audit work plan.

The objective was to get an independent audit opinion as to the City's handling of the concerns raised concerning the soil and groundwater conditions of Melville Park and surrounding schools.

The internal audit report is provided as Attachment 1.

Below is a very quick outline of major activities:

1. In August/September 1997 and December 1997, there was illegal dumping of soil by unknown individuals at Michael Cranny Elementary School and Melville Park respectively.
2. In July 2000, methane was discovered at Melville Park and adjacent school sites.
3. The City hired consultants McClymont & Rak Engineers Inc in December 1997 to monitor removal of soil and verification that the site was clean.
4. The City hired Terrapex Environmental Ltd to do Phase2 Environmental Site Assessment and modified Phase1 Environmental Site Assessment on the Melville Park and surrounding schools.

5. The City also constructed a methane barrier/ventilation trench along the boundary of the park and the elementary school site, and the houses of Falkirk Crescent.
6. The City paid for an independent review of the work of Terrapex Environmental Ltd by a consultant (Decommissioning Consulting Services Limited). who were chosen by the residents of Falkirk Crescent.

The City acted on the recommendations of the environmental specialists, Terrapex Environmental Ltd at all times, until the latter was satisfied that the soil and groundwater conditions posed no threat to public safety.

Relationship to Vaughan Vision 2007

This report is consistent with the priorities previously set by Council and the necessary resources have been allocated and approved.

Conclusion

Based on the auditor's independent, objective review, it is the auditor's professional opinion that the City of Vaughan exercised due diligence in the handling of the soil and groundwater conditions of Melville Park and surrounding schools of Michael Cranny Elementary School and Divine Mercy Catholic School.

Attachments

Attachment 1 – Internal Audit Report of Melville Park and Surrounding Schools.

Report prepared by:

Michael Tupchong, CA, CIA, CPA, CFE
City Auditor

Respectfully submitted,

Michael Tupchong, CA, CIA, CPA, CFE
City Auditor



The City Above Toronto

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Attachment 1

September 18, 2005

Michael DeAngelis
City Manager
City Of Vaughan
2141 Major Mackenzie Drive
Vaughan, Ontario
Canada L6A 1T1

Dear Michael De Angelis,

Re: Audit of MELVILLE PARK AND ABUTTING RESIDENTIAL LOTS

I have completed the audit of Melville Park and abutting residential lots as of September 18, 2005. This audit was not included in the 2005 Audit plan and was a special request by you. The period covered for the audit was 1997 to June 2005.

I would like to thank Commissioner Marlon Kallideen, Director Paul Gardiner, and their staff for accommodating me and providing me with unrestricted access to all staff and information during my audit.

I have exercised independence, objectivity and due professional care in accordance with the Standards for the Professional Practice of Internal Auditing.

The Internal Audit department is committed to adding value, providing continuous improvement recommendations, and professional service to the whole organization.

Sincerely,

Michael Tupchong CA, CIA, CPA, CFE
City Auditor

cc: C. Harris M. Kallideen Paul Gardiner J. Atwood-Petkovski



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MELVILLE PARK AND ABUTTING RESIDENTIAL LOTS

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INTERNAL AUDIT REPORT
MELVILLE PARK AND ABUTTING RESIDENTIAL LOTS

DEFINITION, OBJECTIVE, AND SCOPE

1. Internal Auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.
2. The **objective** of Internal Auditing is to assist members of the organization in the effective discharge of their responsibilities. To this end, Internal Auditing furnishes them with analyses, recommendations, counsel, and information concerning the activities audited. The audit objective includes promoting effective control at reasonable cost. In the end, Internal Audit is focused on continuous improvement in all aspects of the organization.
3. The **scope** of Internal Auditing encompasses the examination and evaluation of the adequacy and effectiveness of the organization's system of control and the quality of performance in carrying out assigned responsibilities. The Auditors are concerned with any phase of City activity. The scope of Internal Auditing generally includes:
 - Reviewing the reliability and integrity of financial and operating information and the means used to identify, measure, classify, and report such information.
 - Reviewing the systems established to ensure compliance with those policies, plans, procedures, laws, and regulations, which could have a significant impact on operations and reports, and should determine whether the organization is in compliance.
 - Reviewing the means of safeguarding assets and, as appropriate, verifying the existence of such assets.
 - Appraising the economy and efficiency with which resources are employed.
 - Reviewing operations or programs to ascertain whether results are consistent with established objectives and goals and whether the operations or programs are being carried out as planned.
 - Making recommendations to the City Manager and Audit Committee regarding improvement in management practices.

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PURPOSE OF AUDIT AND ADDITIONAL SCOPE

Purpose of the audit:

To provide an independent, objective opinion as to whether the City of Vaughan (“the City”) exercised “due diligence” in the handling of soil and groundwater conditions at Melville Park and abutting residential lots. to ensure that the public was not exposed to harmful environmental effects and that public health was not at risk.

Additional Scope :

The **scope** in this case, also included reviewing the actions undertaken by the City in ensuring that the environment was safe and presented no health risks to the public.

Foreword

Even though the City took the lead role in hiring the consultants mentioned in this report, this was a co-operative effort with the York Region District School Board and the York Region Catholic District School Board. Each school board paid for its own portion of the bill which related to work done on their property. The reports from the consultants covered **Melville Park and the surrounding schools**. However, the City is not responsible for any soil conditions of the schools.

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BACKGROUND INFORMATION

Problems encountered:

1. August/September 1997 It was alleged that there was illegal dumping of soil at Michael Cranny Elementary School by unknown Individuals.
2. December 12, 1997 It was further alleged that there was illegal dumping of soil at Melville Park by unknown individuals.
3. July 2000 From testing and analysis of the soil of Melville Park and Adjacent School Sites, methane was discovered. Methane is a colourless, odourless, non-poisonous, lighter-than-air gas that is widely generated and distributed in nature.

Actions undertaken by the City:

1. December 15, 1997 The City hired soil consultants MREI (McClymont & Rak Engineers Inc) to monitor the removal of soil and the verification that the site was clean at Melville Park and Adjacent School Sites.
2. June 2000 The City hired Terrapex Environmental Ltd to do Phase 2 ESA (Environmental Site Assessment) of the Park and surrounding schools.
3. June 2000 City held a meeting with the York Region Separate School Board, York Region District School Board and consultants MREI.
4. July 2000 The city contacted the York Region District School Board about the concentrations of methane.
5. August 2000 The City contacted the Minister of Environment and the Regional Health Department.
6. August 2000 Environmental law specialists at Borden Ladner Gervais were consulted and asked to audit the Phase 2 ESA report of Terrapex Environmental Ltd. They expressed no concern.

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7. September 2000 Basement inspection of 15 homes were tested for methane gas levels. These 15 homes abutted Michael Cranny Public School and Melville Park. All showed no appreciable measurement of methane. At the recommendation of Terrapex Environmental Ltd and as a precaution, the City constructed a combined Methane Barrier/ventilation trench along the boundary of the park and the public elementary school site. The trench is lined with plastic and stone and ensures adequate venting of the soil in those areas of the park and school site where methane concentrations were found.
8. September 2000 Decommissioning Consulting Services Limited (DCS), was hired by Residents of Falkirk Crescent to do a peer audit of the work of Terrapex Environmental Ltd. This was paid for by the City.
9. November 2000 Terrapex Environmental Ltd was hired to do Modified Phase 1 – ESA on the Former Shur-Gain Property for Methane Monitoring. Terrapex installed 9 methane-monitoring probes at various locations. Organic-rich fill were not encountered and decomposed waste was not observed at any of the areas tested.
10. November 2000 A routine methane monitoring program was initiated. by the City through Terrapex Environmental Ltd. The monitoring program included measurement of methane concentrations in 12 backyard monitors i.e., 12,20,48,52,56,60,62,66,70,74,80,90 Falkirk Crescent(abutting the park and school site), 12 catch basins, 5 manholes, 1 water valve chamber and 3 monitoring wells. Monitoring was done weekly Authorization to install methane monitoring probes in backyards of 30,38,42,58 and 86 Falkirk Crescent was not received by the City and therefore these properties were not included in the routine monitoring program.
11. April 2001 On Terrapex Environmental Ltd's recommendations, the basements of 48,52,56 and 58 Falkirk Crescent were jointly monitored by Terrapex and the Vaughan Fire Department No methane was found in the basements checked.
12. Residents were assured that their safety was the City's main concern. Residents were kept up-to-date and informed of on-going information. Communication was done by letter or at meetings (June 8, 9, 2000, August 23, 2000, September 12, 2000, November 27, 2000, January 15, 2001, April 20, 30, 2001, February 1, 2002, May 17, 2002, June 4, 2002 and January 9, 2003).
13. September 2001 Vaughan Fire and Rescue Service installed methane detectors in the basements of 48,52,56,58 and 60 Falkirk Crescent at the recommendation of Terrapex Environmental Ltd. Monitoring was done weekly until November 30,2001 when it was reduced to bi-weekly as no methane was found.

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14. Given the results of the monitoring program and based on the recommendation of Terrapex Environmental Ltd, the City approved reducing the frequency of monitoring events to quarterly as of April 2003. Monitoring discontinued after October, 2003.
15. The costs for the Part 1, Environmental Site Assessment were shared between the City (\$28,338), the York Region District School Board(\$14,594) and the York Region Catholic District Board (\$8,935).
16. The costs for Part 2, Methane Trench and Monitoring were shared between the City (\$102,480), York Region District School Board (\$57,557), York Region Catholic District School Board (\$442).

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Auditor's Observation:

1. The consultant's report (Terrapex Environmental Ltd) described the work performed, the locations where numerous soil testing were done and the results. From the map, it is evident that the locations selected for testing, "covered" the whole area of Melville Park and the property of the two schools. The sampling of location sites encompassed the whole area. The results would give a fair presentation of the whole area. From the test results, the consultants concluded..."**Based on observations and the results of measurements in the field, and the results of laboratory analysis of soil and groundwater samples, it is our opinion that there are no soil or groundwater contaminant issues at Melville Park or the adjacent school sites which warrant further assessment or remedial action.**"
2. To provide more comfort level of the work done by Terrapex Environmental Ltd, another consulting firm called Decommissioning Consulting Services Limited was hired by the residents of Falkirk Crescent at the City's expense, to peer audit the work of Terrapex Environmental Ltd. Decommissioning Consulting Services Limited concluded "**The data provided to date by Terrapex Environmental Ltd indicate that there is no risk of human health impacts due to soil or groundwater contamination in Melville Park and the adjacent school sites.**"
3. Decommissioning Consulting Services Limited made some recommendations in their report that certain fill material, selected soil samples and groundwater monitoring wells should be tested/analysed for inorganics, BTEX/TPH (gas/diesel), TPH (heavy oils), VOCs, PAH, BNA, pesticides/herbicides. The City decided not to do the recommendations based on Terrapex Environmental Ltd.'s response (to the recommendations): "Accordingly, as indicated in our report of August 2000, it remains our opinion that no further assessment or remedial action with respect to soil or groundwater contamination is required at the site."
4. "... it is our opinion that analyses for petroleum-related parameters is not warranted in the absence of any odour", "it is our opinion that no further sampling and analyses are required as a result of the composting method used for the inorganic analyses", "in the absence of aesthetic impacts or elevated CSV or TOV readings, it is our opinion that organic analyses of these materials were not warranted", "it is our opinion that analyses for petroleum-related parameters is not warranted in the absence of any odour",

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“concentrations of all parameters analysed in all eight samples were less than the laboratory detection limits. Since there is no reason to expect different conditions at the park and school properties with respect to pesticides, it is our opinion that no such analyses are warranted”, “in the absence of any evidence of significant organic impact to soil at the site, and any information to suggest the presence of organic impacts in groundwater, it is our opinion that additional groundwater analyses for organic parameters is not warranted.”

Auditor’s Opinion:

1. The City had gone to great lengths and extensive cost, to ensure that there were no health hazards or harmful effects to human lives. The City hired and relied on the “experts” in the field of environmental assessment, namely, Terrapex Environmental Ltd.
2. It is the auditor’s opinion that due diligence was exercised by the City in the soil and groundwater conditions of MELVILLE PARK AND ABUTTING RESIDENTIAL LOTS.
3. The City should not react to every individual’s complaint to test areas not selected by the professional consultant.. It is impractical, costly, time consuming and not necessary to check every inch of soil; hence the use of statistical sampling by the consultant.. Statistical sampling provides a sample of areas to be tested, and provides a certain comfort level that the results of the areas tested, fairly represent that of the whole area. Statistical sampling is an acceptable technique used in auditing.

End of Field Work: September 18, 2005

Auditor(s): Michael Tupchong.....

Approved: