

THE REGIONAL MUNICIPALITY OF YORK

Housing York Inc.
March 9, 2011
Report of the
General Manager

FAIRY LAKE GARDENS, TOWN OF NEWMARKET, POND DREDGING DESIGN ALTERNATIVES

1. RECOMMENDATION

It is recommended that:

1. The Board of Directors approve the staff recommended pond channelized design option (Alternative #3) for the Fairy Lake Gardens Pond and authorize staff to proceed with the specification preparation, tendering, and construction of the project within approved capital budget.

2. PURPOSE

This report will provide a progress update and the recommended design alternative with respect to rehabilitation of the small pond on Housing York Inc's (Housing York) Fairy Lake Gardens located in the Town of Newmarket

3. BACKGROUND

Sediment build-up in small stormwater retention pond requires dredging

Housing York's Fairy Lake Gardens has 153 senior citizen apartments, in two buildings, located at 468 and 474 Eagle Street in the Town of Newmarket. A small stormwater retention pond which is connected to Fairy Lake is located on the property. The pond has existed for over 40 years. Although stormwater management is generally a Town responsibility, the pond is owned by Housing York and therefore must be maintained by the owner.

The stormwater retention pond allows stormwater run-off to flow from the creek into Fairy Lake. The pond forms part of the East Holland River system that drains to Lake Simcoe. The pond was not designed to modern stormwater management criteria to meet the Ministry of Environment's (MOE) design criteria. Attachment 1 provides a diagram of the pond and the catchment area.

The initial intention was to dredge the existing pond because silt has accumulated over the years. In 2007 while preparing the dredging scope of work, pond sediment sampling found minor lead, cadmium and zinc contamination that requires proper care and handling of the sediment. In March 2009 a report to the Board of Directors explained that due to the increased complexity of the work a consultant was being hired to assess the alternatives for dredging the pond. Working with the Region's Environmental Services Department consulting services were secured to manage the process, design the pond restoration and sediment clean up options, and supervise the construction contract.

Housing York may have recourse in the contamination matter to the prior owner, Ontario Mortgage and Housing Corporation (OMC), as the contamination appears to have existed at the time of property transfer. The Province was notified of the environmental contamination and is receiving regular project updates. OMC has indicated they are prepared to assist with costs associated with the contamination.

In March 2009, the Board approved pursuing cost recovery from OMC and for the Environmental Services Department to act as Housing York's agent in facilitating the pond rehabilitation project.

4. ANALYSIS AND OPTIONS

Report provides two viable design alternatives to address pond sediment accumulation and contamination

In September 2009 the consultant's report proposed four design alternatives. Alternatives #2 and #4 are cost prohibitive with estimates in excess of \$400,000 for capital (restoration) work plus significant ongoing maintenance costs. The two remaining alternatives involve either dredging and retaining the existing pond or channelizing the pond.

Table 1
Comparison of Alternatives #1 and #3

Criteria	Alternative #1 Restore Pond	Alternative #3 Channelize Pond
Use	• Convey stormwater run-off • Aesthetic appeal of open water	• Convey stormwater run-off
Water Quality	• No improvement • Undesirable thermal impacts due to open pond • Does not meet Ministry of the Environment protection level requirements for wet ponds	• More natural sediment run-off • No removal of solids • No thermal impact
Ongoing Maintenance	• Requires periodic dredging	• Potentially eliminate future maintenance

Criteria	Alternative #1 Restore Pond	Alternative #3 Channelize Pond
Enhance Environment	Minimal improvement to fish habitat	- Long Term improvement to fish habitat - Increase recreational space for tenants
Capital Cost	\$277,000	\$171,000
Maintenance Cost	\$192,000 (recommended every 5 Years)	\$101,000 (contingency only)
Approvals	- Pre-approved Environmental Assessment - LSRCA approval required	- Pre-approved Environmental Assessment - LSRCA approval required

The consultant recommends the channelized pond design (Alternative #3) because it improves the function of the pond and has a lower capital and maintenance cost than Alternative #1. The nature of a channel design reduces or eliminates sediment accumulation therefore future maintenance (dredging) costs are expected to be minimal.

Alternative #3 would involve shaping a channel within the existing sediment. The pond does not effect flood attenuation, therefore the function of the channel would be to convey the stormwater runoff directly to Fairy Lake. The channel would also be designed to flush accumulated sediment during minor storm events and prevent sediment from accumulating within the channel.

The design option of dredging the pond (Alternative #1) was not recommended because it has limited improvements to the overall function of the pond. It also does not address accumulation of the sediment and requires ongoing maintenance cost. As noted previously, the pond does not meet MOE design criteria and if brought back to the original design form, the pond would serve to stop some sediment from going downstream. However, it would do this as an online pond, which has a variety of negative impacts as noted in Table 1.

Extensive consultation efforts made to gather perspectives of alternatives

With receipt of the report on the design alternatives, consultation was initiated with Lake Simcoe Region Conservation Authority (LSRCA), Town of Newmarket, tenants and neighbouring residents.

The LSRCA prefer the channelized design (Alternative #3) as it represents the restoration of a water course and eliminates an on-line pond.

Discussions with Newmarket staff did not suggest any concerns with the recommended approach.

On May 31, 2010 a voluntary Public Information Centre was held in the lounge of Fairy Lake Gardens. Both tenants and community neighbours received notice of the meeting. Notice of the Public Information Centre was also published in the Era Banner, within the Town's page. Over 40 people attended and received information regarding the issue and the alternatives. Attendees were offered the opportunity to provide a written opinion of their preferred alternative. Eighteen responses were received with preferences split 50/50 for Alternative #1 and #3.

On June 14, 2010 an information presentation was made to the Town of Newmarket Committee of the Whole. Town Council subsequently passed a resolution on June 21, 2010 indicating their interest in the pond rehabilitation activity (*see Attachment 2*).

The matter was deferred from the August 30, 2010 meeting of the Committee of the Whole until such time that the Housing York Inc. Board of Directors had considered the matter.

Recommended approach is channelize pond (Alternative #3)

In consideration of the consultant's report, LSRCAs opinion and that of tenants and neighbours, the recommended design approach is to channelize the pond.

Channelizing will improve the water quality, fish habitat, increase recreational space for tenants and achieve the lowest capital and operating cost. Both alternatives were given consideration by balancing the environmental interests with financial implications. Given that public opinion was split on the two alternatives, the recommendation is made to move forward with the alternative that provides the greatest benefit to water quality and fish habitat, and is most cost effective.

Construction work planned for 2011

The extensive consultation process and subsequent report to the Board of Directors will mean the construction work could be completed in 2011. Funds were approved in 2010 budgets and held in a reserve account for 2011.

The Province (OMC) is aware of the timelines and have indicated that it will not affect their ability to fund costs associated with contamination clean up.

5. FINANCIAL IMPLICATIONS

The approved 2010 budget included \$600,000 for pond restoration costs for the design, contract management and construction work to complete the pond dredging. These funds were placed in a restricted corporate reserve account for use in 2011. Unfortunately a proposal submitted for Federal funding for this project was not successful under the Lake Simcoe Clean-Up Fund Program.

6. LOCAL MUNICIPAL IMPACT

The Fairy Lake Gardens Pond is part of the Town of Newmarket's downtown core and part of the East Holland River system. Consultation on the design alternatives included the Town of Newmarket, Lake Simcoe Region Conservation Authority and local residents.

7. CONCLUSION

It is important to remediate and restore the watercourse to an effective part of the natural water system. The channelize alternative emerges as the design that provides environmental, economic and social benefits.

Efforts will continue to ensure that the Province funds the costs of restoration as per the terms of the *Social Housing Reform Act, 2000*.

For more information on this report, please contact Sylvia Patterson, Assistant General Manager, Housing York Inc. at Ext. 2091.

The Senior Management Group has reviewed this report.

Recommended by:

Approved for Submission:

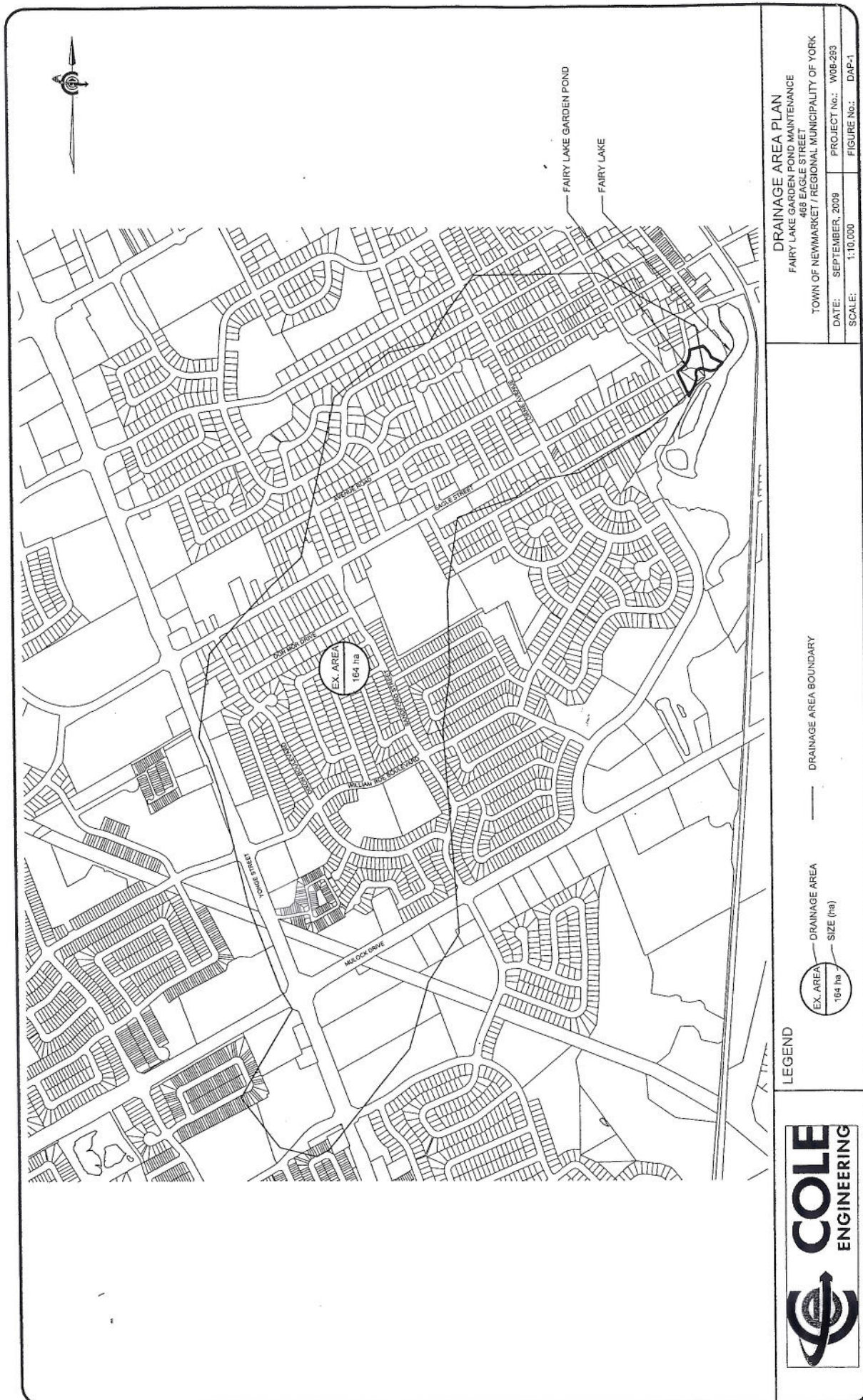
Sylvia Patterson
Assistant General Manager

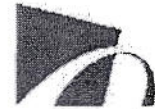
Adelina Urbanski
General Manager

February 17, 2011

Attachments - 2
eDocs #2242568
DM/sb

Report Wizard v.1.2010





Newmarket

RECEIVED

JUN 30 2010

General Manager of
Housing and Long Term Care
Community and Health ServicesREVISED CORRESPONDENCE

June 28, 2010

Ms. Sylvia Patterson
Office of the General Manager
Housing and Long Term Care
Community and Health Services Department
The Regional Municipality of York
17250 Yonge Street, 3rd Floor
Newmarket, ON L3Y 6Z1

Dear Ms. Patterson:

**RE: Pond Naturalization Project
468 and 474 Eagle Street**

I am writing to advise that through inadvertence the incorrect recommendations were sent to you in a letter dated June 22, 2010.

The following recommendations are the correct ones:

1. **THAT** the PowerPoint presentation by Ms. Sylvia Patterson, Assistant General Manager of Housing York and Mr. Tom Hogenbirk, Manager, Engineering and Technical Services, Lake Simcoe Region Conservation Authority be received;
2. **AND THAT** the Town request Housing York in to defer consideration of the pond naturalization project for the property known as 468 and 474 Eagle Street until the public consultation process is complete;
3. **AND THAT** Housing York Inc. be requested to send the Town the results of the public consultation, including all letters and comments as soon as the consultation period is closed;
4. **AND THAT** the matter be referred to the Heritage Newmarket Advisory Committee for their comments;
5. **AND THAT** the matter be brought back for consideration at the Committee of the Whole meeting on August 30, 2010.

Yours sincerely,

Liz Gibson
Deputy Clerk

LG:lm

copy: Mr. R. Marriott, Chair, Heritage Newmarket

**Anita Moore, AMCT
Town Clerk**

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