

**CITY OF HAMILTON**

**PUBLIC WORKS DEPARTMENT**  
**Environment & Sustainable Infrastructure Division**

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| <b>TO:</b> Chair and Members<br>Public Works Committee  | <b>WARD(S) AFFECTED:</b> WARD 13   |
| <b>COMMITTEE DATE:</b> March 5, 2012  |  |
| <b>SUBJECT/REPORT NO:</b><br>Policy 11 - Single Source Provider for Project Management Services - Lower Spencer Creek Integrated Subwatershed Study (PW12015) - (Ward 13) |  |
| <b>SUBMITTED BY:</b><br>Gerry Davis, CMA<br>General Manager<br>Public Works Department  | <b>PREPARED BY:</b><br><br>Udo Ehrenberg<br>(905) 546-2424, Extension 2499 |
| <b>SIGNATURE:</b>   |  |

**RECOMMENDATION**

That the General Manager of the Public Works Department be authorized and directed to retain the Hamilton Conservation Authority as a Procurement Policy #11 - Single Source Provider, to undertake Project Management Services for the proposed Lower Spencer Creek Integrated Subwatershed Study including the procurement of associated consulting services to an amount anticipated not to exceed \$350,000 from Project ID: 5181055075, Project ID name: Watershed Project Coordination and Stewardship Action Plans.

**EXECUTIVE SUMMARY**

The City in partnership with the Hamilton Conservation Authority (HCA) is implementing an integrated subwatershed study of the Lower Spencer Creek (see appended Study Area Map). Project Management Services are required to deliver this study. Traditionally, in-house, City Project Managers deliver such studies, however for the following reasons it is beneficial to have HCA fill this role.

- There are many high priority tasks/studies in the 2012 Work Plan for the Infrastructure and Source Water Planning Section for which there are limited in-house resources, as such this modified service delivery model is recommended.

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- HCA staffs have very specific expertise on this topic as it aligns with their core mandate relating to watershed management. There are synergies with past evaluations and studies completed by HCA which present efficiency in the delivery of the current study.
- Erosion and flooding in this watershed requires mitigation in the short term before it escalates to larger capital works and further environmental degradation.
- This project is the second subwatershed study fulfilling the objectives of a coordinated strategy between the City of Hamilton and the Hamilton Conservation Authority which began in 2008 with the execution of the Battlefield Creek/Stoney Creeks Subwatershed Study that was also completed through the project management model being recommended herein.
- The completion of this Environmental Assessment is a condition of the Ministry of the Environment's Certificate of Approval required to undertake the construction activities to rehabilitate the erosion and flooding problems.

In addition to Project Management Services, HCA will procure through their competitive Procurement Policy (Appendix A) the Consulting Services required to deliver the Subwatershed Study. All subwatershed studies at the City of Hamilton are completed following the Consultant services model. A subwatershed study requires a broad range of expertise listed below that is not readily available in-house. The science-based study will investigate the functionality of the subwatershed through assessment of the hydrology, hydraulics, hydrogeology, water quality, aquatic ecology, terrestrial ecology, and fluvial geomorphology. Integration between these disciplines will be key to achieving a full understanding of the watershed and how it responds to change.

The City would retain and oversee all financial project management responsibilities for the proposed project; maintain final approvals status for project deliverables funded by the City; and participate in the project's Technical Advisory Committee. Therefore, the recommendation is to retain the Hamilton Conservation Authority (HCA) as a single source provider to undertake Project Management Services for this study using the approved funds in 5181055075, Project ID name: Watershed Project Coordination and Stewardship Action Plans.

**Alternatives for Consideration - See Page 6**

**FINANCIAL / STAFFING / LEGAL IMPLICATIONS**

**Financial:**

Funding for this recommendation was approved in the 2010 Rate Budget (5181055075 - Watershed Project Coordination and Stewardship Action Plans)

The estimated cost for each of the tasks is included in the tables below.

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| <b>Hamilton Conservation Authority - Project Management Fees</b> |                 |  |
|--|-----------------|--|
| <b>Sub-discipline/Tasks</b>                                      | <b>Estimate</b> | <b>Other Funding Agency Contribution</b> |
| Administration   | \$3,500         |  |
| Project Management   | \$34,500        |  |
| <b>Total (excl HST)</b>  | <b>\$38,000</b> |  |

| <b>Lower Spencer Creek Integrated Subwatershed Study Funding Estimate (acquired through HCA's competitive bidding Policy)</b> |                  |  |
|---|------------------|--|
| <b>Subdiscipline/Tasks</b>  | <b>Estimate</b>  | <b>Other Funding Agency Contribution</b> |
| Hydrology   | \$40,000         |  |
| Hydraulics  | \$45,000         |  |
| Hydrogeology  | \$100,000        |  |
| Water Quality   | \$20,000         | \$80,000 *                               |
| Aquatic   | \$20,000         |  |
| Terrestrial   | \$20,000         |  |
| Fluvial Geomorphology   | \$40,000         | \$15,000 **                              |
| Contingency   | \$27,000         |  |
| <b>Total (excl HST)</b>   | <b>\$312,000</b> | <b>\$95,000</b>                          |

\* \$30,000 from the Hamilton Wentworth Stewardship Council through the Canada Ontario Agreement and \$50,000 from MOE through the Canada Ontario Agreement

\*\* \$10,000 from Environment Canada through the Great Lakes Sustainability Fund and \$5,000 from HCA funds

**Staffing:**

There are no staffing impacts related to this recommendation.

Sufficient staffing levels exist within the Infrastructure and Source Water Planning Section to represent the City and to work as a member of the Technical Advisory Committee. However, sufficient resources do not currently exist within the Infrastructure and Source Water Planning Section to lead and project manage this study at this time without delaying other ongoing or upcoming projects.

**Legal:**

There are no known legal implications with the recommendations. The study planning process may make recommendations which will lead to undertakings that are subject to

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the Environmental Assessment Act. In order to meet the intent of the Act, the study will be conducted using the Conservation Ontario Class EA process. The City will investigate possible co-proponent opportunities to further satisfy the Municipal Class EA requirements. Municipal undertakings such as road improvements, stormwater, water and wastewater projects are subject to Ontario's Environmental Assessment Act. The Act allows for the approval of Class Environmental Assessments and the municipality has the option of following the planning process set out in the Municipal Engineers Association Municipal Class Environmental Assessment (October 2000 as amended in 2007). A Public Consultation Plan which meets the requirements of the Municipal Class EA process will be incorporated into the study procedure.

### **HISTORICAL BACKGROUND**

In 2008 staff from the Hamilton Conservation Authority (HCA) along with Public Works staff recognized the need for a strategy of responsible and pro-active watershed management for the Battlefield Creek/Stoney Creek, Lower Spencer Creek, and Red Hill Creek, as a multi-phased program over approximately a 10 year period.

In cooperation with the Hamilton Conservation Authority (HCA), subwatershed studies will be initiated that will complement the efforts of both the HCA and the City related to identifying existing flood damaged areas, erosion sites, as well as assessing fisheries and water quality improvements that can be achieved through remedial measures. The findings of the Lower Spencer Creek Subwatershed Study will consider the relationship between condition and function of the existing watershed features as they relate to expected performance, as well as connection to areas of urban growth as per the City's Staging of Development Program. Future rehabilitation/capital works could include construction of any of the following: stormwater management facilities, creek works, slope stabilization, and improvements to culverts.

The Battlefield Creek/Stoney Creek Subwatershed Study is complete with stakeholder review of the Class Environmental Assessment to take place in the first quarter of 2012. We are seeking approval to initiate the next phase of the Watershed Project Coordination and Stewardship Action Plan, by undertaking the Lower Spencer Creek Subwatershed Study.

### **POLICY IMPLICATIONS**

Procurement Policy #11 - Single Source Provider is being utilized to procure the required services to deliver the Lower Spencer Subwatershed project.

The Public Works Strategic Plan Vision for 2017 would be a document which affects this proposal. This project would be aligned with the Communities Vision driver under the priority to be a leader in the "greening" and stewardship of the City by addressing flooding concerns, health/functionality of watercourse channels, and aesthetics of the lower Spencer Creek Watershed; as well as supporting Hamilton Harbour Remedial Action Plan (HHRAP), and water quality improvements in Cootes Paradise.

**RELEVANT CONSULTATION**

Discussion with the Ward Councillor determined support for the recommendation and scope of work in the subwatershed study. Particular attention to the re-evaluation of floodplain limits and subsequent impact to development of affected properties will be addressed as part of the study undertaking and subsequent implementation.

Discussions with Finance & Corporate Services Department, Financial Services Division's staff and specifically the Procurement Section were completed to determine the appropriate mechanism for this recommendation. This approach is acceptable.

**ANALYSIS / RATIONALE FOR RECOMMENDATION**

The Hamilton Conservation Authority (HCA) has the crucial resources and expertise to execute the project management from a lead technical position. Current City staffing levels do not allow for the necessary resources to be allocated to this project. If the City were to take on the lead technical as well as all other project management roles for the proposed study, this would result in having to delay the start up and placing other projects on hold. The City and HCA will develop and sign a Memorandum of Agreement on the scope of work before the start of the study. This project is a mutually beneficial collaboration and partnership opportunity for the City and HCA. The consultants retained by the HCA via their competitive bidding Procurement Policy (Appendix A) to undertake the subwatershed study would also be parties to the Memorandum of Agreement.

Through the HCA Procurement Procedure (Appendix "A") compliance with the competitive bidding requirements of Hamilton's Procurement Policies will be respected. In essence, the lowest, qualified bid will be awarded the work. City staff will participate in the proposal review following HCA's Request for Proposal - RFP process.

City staff's role will be to provide technical review, approve progressive payments, communicate with internal stakeholders, ensure full compliance with Hamilton Project Management Procedures and Protocol, and participate in the Technical Advisory Committee.

**SCOPE OF WORK** - The Lower Spencer Creek Subwatershed Study will be undertaken to address flooding and erosion, and environmental habitat/ecological concerns associated with the Lower Spencer Creek watershed following the Conservation Ontario Class EA process. The study objectives are to identify remedial measures that are required to reduce or eliminate flooding impacts to property, and infrastructure as a result of storm events up to and including the Regional Storm Event. There are also persistent slope stability and slope erosion problems in this watershed that need to be addressed.

Necessary works associated with the study include the following:

- Evaluate the study area for existing hydrologic, hydrogeologic, geotechnical, environmental, land use and natural heritage conditions

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- Develop an appropriate flood and erosion control management strategy, including identification of general locations and volume requirements for any required stormwater management facilities
- Identify impacts of storm flows within the natural environment, property, and hydraulic structures
- Identification of floodplain limits and re-evaluation of impacts to proximal redevelopment
- Characterization of existing fish habitats
- Define qualitative fisheries assessment
- Identification of stream/valley corridor features
- Identification of existing vegetation communities
- Conduct terrestrial assessment
- Conduct stream morphological assessment
- Conduct channel erosion assessment
- Conduct slope erosion assessment
- Conduct hydrogeological assessment

The study will consider current and planned land use scenarios over a thirty year planning horizon. The study is intended to become the basis for and used in support of future investigations, and for the specific detailed design and construction projects recommended.

#### **ALTERNATIVES FOR CONSIDERATION**

**Alternative 1: City of Hamilton takes on full project management responsibilities of the proposed Lower Spencer Creek Integrated Subwatershed Study**

Under this alternative, the City of Hamilton would have to allocate the necessary staffing resources to undertake the project. The financial implications would not change.

This alternative is not recommended. *Utilizing current Strategic Planning resources would cause delay in the delivery of other high priority services. The HCA has the technical expertise to be the technical lead for the project, and provide in-depth analysis into finding remedial solutions that address the environmental, social, economic, and safety concerns. Moving forward with the HCA as a technical lead for project management, and the City as primarily in the role of financial project manager, would allow for immediate implementation of the study process and not delaying any future projects that may be required.*

**Alternative 2: Project management responsibilities of the proposed Lower Spencer Creek Integrated Subwatershed Study be procured through a Consulting Engineering firm.**

Under this alternative, the City of Hamilton would hire a consulting engineering firm to undertake project management on behalf of the City. The financial implications would not change.

This alternative is not recommended. *There are substantial synergies and efficiencies in hiring Hamilton Conservation Authority - HCA that would be lost if a consulting firm*

*was hired. A consulting firm would have to familiarize themselves with the watershed and history, whereas HCA is intimately familiar with it. HCA also have completed many background studies which will be leveraged in the completion of the current study.*

## **CORPORATE STRATEGIC PLAN**

Focus Areas: 1. Skilled, Innovative and Respectful Organization, 2. Financial Sustainability, 3. Intergovernmental Relationships, 4. Growing Our Economy 5. Social Development, 6. Environmental Stewardship, 7. Healthy Community

### ***Financial Sustainability***

- ◆ Delivery of municipal services and management capital assets/liabilities in a sustainable, innovative and cost effective manner
- ◆ Environmental Assessment processes allow for full consideration of the environment, which includes financial considerations, when selecting solutions
- ◆ Effective and sustainable Growth Management

### ***Growing Our Economy***

- ◆ Reducing flooding impacts to private properties, reduce costs to individual home/property owners in damages, timely risk management cost savings to the City
- ◆ Reducing erosion results in reduction of land loss to private land owners abutting those sites, resulting in improvement of property value of the entire community

### ***Social Development***

- ◆ Reduction of flooding and damages to private properties

### ***Environmental Stewardship***

- ◆ Natural resources are protected and enhanced
- ◆ Reduced impact of City activities on the environment

### ***Healthy Community***

- ◆ An engaged residents
- ◆ Environmental Assessments are consultation driven and help to engage the community on infrastructure decision making.

## **APPENDICES / SCHEDULES**

Appendix "A" - Hamilton Conservation Authority Purchasing Policy  
Appendix "B" - Study Area Map

Hamilton Conservation Authority Purchasing Policy  
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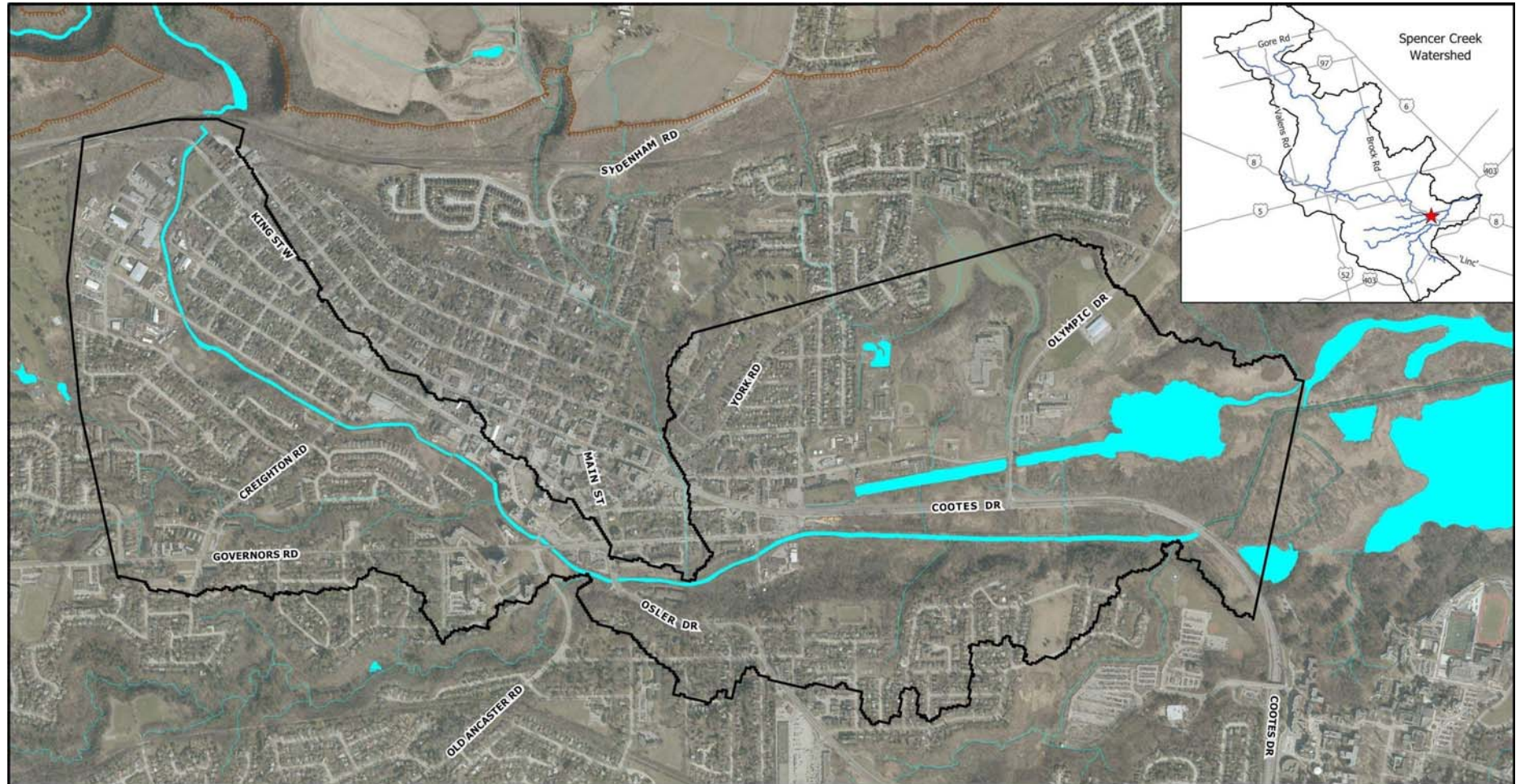
**DATE:** July 8, 2011  
**RE:** Updating Purchasing Policy

*All purchased for the HCA shall be made in accordance with the following policies and procedures. Limits may change over time.*

- (a) All purchases shall be within budget limits unless otherwise directed by the Board of Directors and/or the Chief Administrative Officer.*
- (b) All purchases shall be made with the issuance of a purchase order signed by the Secretary –Treasure, CAO or his designate, or a Conservation Authority Director, or by Conservation Authority Credit Card, or by letter of the CAO.*
- (c) Purchased shall be made only by those person who have been authorized by the CAO to do so*
- (d) Purchases up to \$3,000, plus HST may be authorized by employees if designated by Division Directors (typically a Superintendent).*
- (e) Purchase between \$3,000 and \$45,000 plus HST, require approval of the CAO or designated supervisory staff. Attempts shall be made to purchase items for the best possible prices. Wherever possible, three (3) prices are to be obtained by fax, email, mail or phone.*
- (f) Purchased between \$45,000 and \$75,000 plus HST, shall be approved by the HCA Chairman if the lowest price is accepted. Three quotations shall be obtained whenever possible.*
- (g) Purchases over \$75,000 plus HST must be advertised by public tender and be approved by the HCA Board of Directors.*
- (h) In emergency or unusual situation where time is of the essence, the HCA Chairman shall have the discretionary power to approve purchases between \$75,000 and \$125,000 plus HST, subject to a telephone poll of the HCA Board of Director Members. All such purchases shall be reported at the next HCA Board meeting.*
- (i) Purchase made through the City of Hamilton purchasing department shall o require quotation or public tender as this ahs already been done by the City. The City selection o specific items or services shall therefore be deemed to be the low tender*
- (j) When quotes are received which are identical to one another in every respect, the location of the bidder may be taken into account.*



# APPENDIX "B" REPORT PW12015 Study Area Map



Project Focus Area    Watercourse    Water Body    Niagara Escarpment



## SPENCER CREEK PROJECT FOCUS AREA

Base Mapping supplied by the City of Hamilton, and the Ministry of Natural Resources.  
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