BROCKVILLE
CITY OF THE 1000 ISLANDS

Operations Committee

Monday, August 11, 2008, 4:00 p.m.
City Hall - Council Chambers

Committee Members	Areas of Responsibility	
Councillor G. Beach, Chair	Operations	CRCA
Councillor L. Journal	Community Services	Airport Board
Councillor L. Severson	Fire	Arena Advisory Board
Mayor D.L. Henderson, Ex-Officio	Museum	Visual/Performing Arts Committee
	Library Board	PLMG
	Cemetery Board	BMAAC
	St. Lawrence Lodge Mgmt.Board	Brockville Municipal Non-Profit Housing Committee
	L,L&G Health Unit	

AGENDA

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ITEMS FOR CONSIDERATION

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ITEMS FOR CONSIDERATION

CONSENT AGENDA

Oper-Aug

Designated November 2002

Frontenac Arch BIOSPHERE RESERVE

Building Sustainable Communities

CBRA ACRB Canadian Biosphere Reserves Association / l'Association canadienne des réserves de la biosphère — Member

July 7th 2008

City of Brockville
1 King Street West, P.O. Box 5000
Brockville ON K6V 7A5

Re: Proposed Biosphere Trails Council

Mayor and Council; City of Brockville

The Frontenac Arch Biosphere Reserve is proud to be able to present a proposal, which we hope will meet with your approval and endorsement through resolution of Council, for your support of the creation of a Biosphere Trails Council.

As the accompanying document outlines, the Biosphere Trails Council would be a component of the Ontario Trails Council. OTC's The Ontario Trails Strategy has goals and strategies to help create a sustainable system of trails in the Province, including coordinating mechanisms to improve trail stakeholders' ability to work together.

In May 2008, the Biosphere organized and facilitated a first meeting that brought together many of the organizations and agencies of the region which host, own or manage trails. There, the Director of the Ontario Trails Council discussed the development of regional trails councils. Following further meetings with the 30+ trails groups, the Frontenac Arch Biosphere Reserve, on behalf of the trails groups, is undertaking to form the Biosphere Trails Council of the Ontario Trails Council.

We believe that this will be of great benefit to your municipality, and to others of the region. As outlined in the Executive Summary of the attachment, this regional trails council will assist the efforts of all trails groups for all types of trails, and will benefit regional residents and the tourism industry. The Biosphere Trails Council will be seen as a superlative example of sustainable community development's four pillars of healthy environment, culture, society and economy. There is no intent to replace the many individual and group efforts to build and enhance trails, along with governments. Instead, we will leverage their work through greater co-operation and better linkage to enhance trail use for health and recreational by our residents, and improve abilities to attract visitors and broaden the tourist experience. We do not seek any form of controlling role, but rather one that facilitates co-operation and builds towards the future. Through all of this, we fully respect the need to preserve individual land owner rights to control access, and the autonomy of all related organizations.

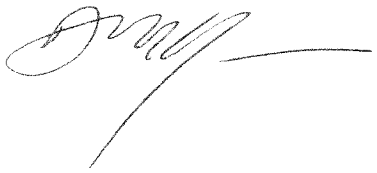
19 REYNOLDS RD., RR 1, LANSDOWNE, ONTARIO, K0E 1L0 • PHONE: (613) 659-4827 • FAX: (613) 659-4827
E-MAIL: INFO@FABR.CA • WEBSITE: WWW.FABR.CA

We are seeking agreement with the Ontario Trails Council to formally create this new Council. Your endorsement of the formation of a Biosphere Trails Council, for the coordinated approach to trails organization and partnerships in and appropriately adjacent to the Frontenac Arch Biosphere Reserve would strengthen the demonstration of local support. We hope that your Council will be able to discuss this proposal, and approve a form of the draft resolution included in this attachment, at your earliest convenience. Should you wish, Don Ross, Executive Director of the Frontenac Arch Biosphere Reserve, could be present for the discussion and to provide further detail.

We are not seeking any substantive or financial support from your Council, but would accept such support if offered. Rather, our aim is to attract resources to the area for future development of trails within the Biosphere. Further, we will build a co-operative approach to fund-raising for trail maintenance initiatives as well as training for trail users, building information and data bases for use through tourist, municipal recreation and economic development websites already in existence.

With your endorsement, we will proceed to develop a governance model, seek Ontario Trails Council agreement and continue our work with existing trail groups.

Yours truly,



Don Ross; Executive Director
Frontenac Arch Biosphere Reserve
for Gary Clarke; Chair,
Frontenac Arch Biosphere Reserve

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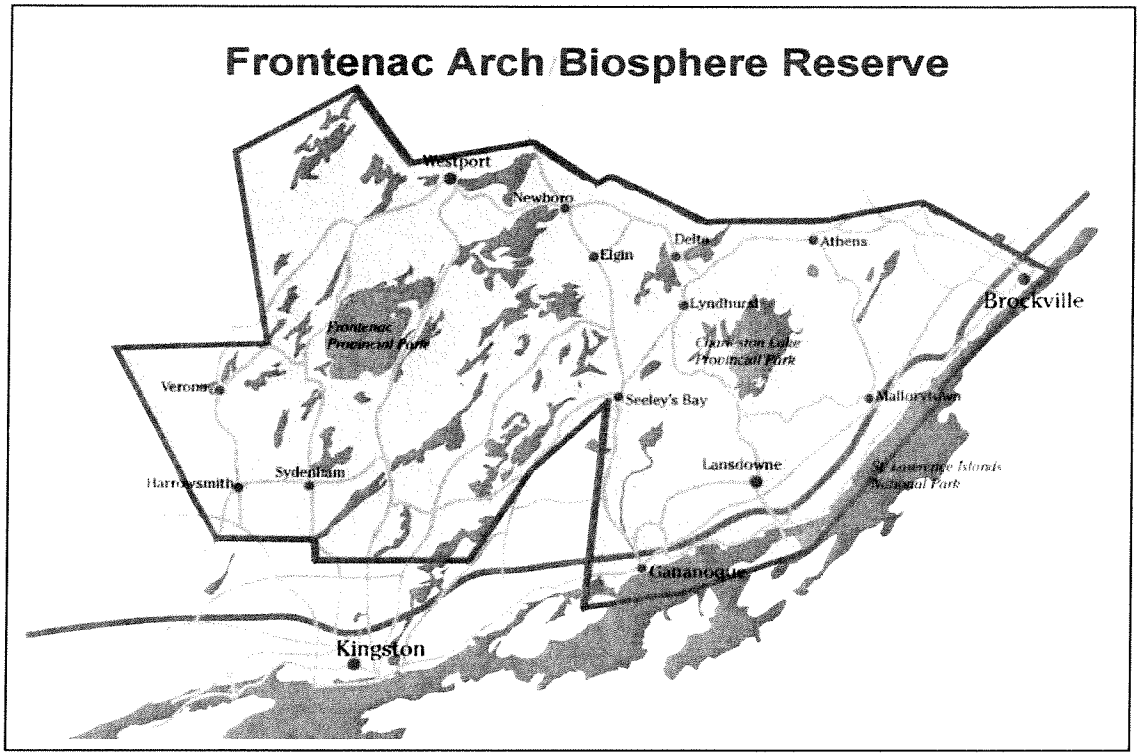
Proposal:

Formation of a Biosphere Trails Council



in the

Frontenac Arch Biosphere Reserve

Presented with respect,
July 2008

Proposal for a Frontenac Arch Biosphere Trails Council

This is a formal proposal from the Frontenac Arch Biosphere to the municipalities and trail organizations in the Biosphere. We are seeking endorsement, without binding obligation, for this initiative and for recognition of the Frontenac Arch Biosphere Trails Council. **A draft resolution is attached.**

Executive Summary

The Frontenac Arch Biosphere area is blessed with many recreational trails of all kinds. The proposed Biosphere Trails Council would support and network the many trails organizations and agencies. It would build upon their successes and advance the development of trails within the Biosphere area for recreational and health uses by the residents of the area, and to strengthen the capacity of the trails groups and the trail system to accommodate and attract a growing number of tourists seeking an active and environmentally sound vacation experience. The proposed Biosphere Trails Council would have no overall authority and no jurisdiction in terms of controls or the imposition of standards. In no way will it effect municipal, provincial or federal legislation, zoning or planning. However, it would provide a much needed platform for developing the high potential for trails, both motorized and non-motorized, to improve the health of our residents, increase the attractiveness of the Biosphere as a tourism destination, and provide an environmentally sound framework within which to do so. This proposal is the result of consultations with many existing trail groups within the Frontenac Arch Biosphere Reserve.

Through the creation of the Biosphere Trails Council, municipalities and constituent organizations would benefit from the support and guidance of the Ontario Trails Council, a Kingston-based provincially mandated organization, which fosters the development of trails across the province. It is a strong advocate of regionally based trails councils. A Biosphere-based council would be the first of its kind, embracing the geological and biological diversity of the area as recognized by the United Nations.

This proposal does not seek the endorsement of any specific set of powers, any budget or any specific mandate, except that of developing the ideas and returning with more concrete plans to stakeholders.

The Biosphere Trails Council would advance the overall development of all types of trails and trail organization partnerships within the Biosphere Reserve and adjacent areas to advance the environmental, economic and health benefits such trails offer any community. There is no intent to replace the many individual and group efforts to build and enhance trails, along with governments. Rather, the new regional Trails Council would leverage their work through greater co-operation and better linkages to enhance trails use for health and recreational by our residents, and improve our ability to attract visitors and broaden the tourist experience. We do not seek any form of controlling role, but rather will facilitate co-operation and build towards the future.

We see a real gap in terms of planning and developing information resources for both residents, local tourism operators and visitors to our area. Further, we see the real

benefits that will flow in the development of shared approaches. Through all of this, we fully respect the need to preserve individual land owner rights to control access, and the autonomy of all related organizations.

In terms of the implications of this proposed endorsement by your Council, we are not be seeking any substantive or financial support, although such support would be welcomed. Rather our aim is to attract resources to the area for future development of trails within the Biosphere. Further, our goal is to seek to build a co-operative approach to fund-raising for trail maintenance initiatives as well as training for trail users, building information and data bases for use through tourist, municipal recreation and economic development websites already in existence.

Draft Resolution

Given that the Frontenac Arch Biosphere Network, in co-operation with many local trail groups, seeks to improve the recreational trail systems of the Biosphere to increase the health and environmental benefits to its residents and increase the beneficial use of trails in supporting our tourism providers and users,

Be it resolved that ———— (Council; organization), endorse the creation of a Biosphere Trails Council, a voluntary organization that includes all types of trails, respecting the distinctive use of each trail system and the autonomy of each trails organization; and respecting the regulation and authority of governments and the rights of all property owners, with an objective to ensure environmental integrity, greater co-operation, planning and building for future health and recreational uses of trails in the Frontenac Arch Biosphere Reserve and associated area.

Perspective and Background:

1. The Frontenac Arch Biosphere Reserve: Globally Unique

The Frontenac Arch Biosphere Reserve was designated by UNESCO in November 2002. It is one of over 500 Biosphere Reserves in 105 countries around the world. The designation follows approval of a nomination of a region by that county's government or regional organization, based on the global significance of its natural environment and regional support for the principles of sustainable development.

Functionally, the Biosphere networks natural and historic conservation organizations, economic and social development groups, as well as the educational and scientific communities located within the Frontenac Arch region. As an organization, we are known as the **Biosphere Network**. The Biosphere Network helps guide the community towards more integrated and effective approaches to sustainable living.

The Biosphere Reserve is located in southeastern Ontario, roughly between Brockville, Gananoque, Westport and Harrowsmith. It encompasses many protected natural areas; including St. Lawrence Islands National Park, Frontenac Provincial Park and Charleston Lake Provincial Park. Significantly, this World Biosphere Reserve has within it, the Rideau Canal World Heritage Site—one of a handful of instances where these two highly celebrated UNESCO designations overlap. There are also recreation areas and historic sites including St. Lawrence Parks Commission lands, land trust holdings, lands of the Cataraqui and the Rideau Valley Conservation Authorities, provincially designated Areas of Natural and Scientific Interest and the Queen's University Biological Station. As well, urban and rural zones are important cultural areas of Biosphere Reserves.

We are located at the intersection of the two most important natural migration corridors of eastern North America. The Frontenac Arch is the granite backbone of the eastern continent, running between two of the largest natural areas in eastern North America: the Adirondack and Algonquin Park areas. Where the narrowest part of the arch crosses the St. Lawrence River, it forms the Thousand Islands. The east-west corridor is the St. Lawrence River Valley, connecting the Great Lakes heartland of the continent to the Atlantic coastal region. The Frontenac Arch is an area where 5 eco-regions meet, creating the highest biodiversity in eastern Canada. Even with human development, there is as well a very high number of species at risk.

The Network serves all communities and constituents within its boundaries. It engages in projects designed to bring a more sustainable and integrated approach to economic, environmental and social development. It assists municipalities with planning, raises awareness of the Biosphere and sustainability to affect public and private policy and business decisions, and helps in developing broad strategies with new economic and environmental models for business such as tourism. This request for support is indicative of the Network activities focus: integration of environmental, cultural and economic resources, with an eye to future development to enhance society at large.

2. Trails, their importance and scope

Around the world there are numerous examples of flourishing trail tourism: the longstanding success of trail tourism in the European Alps; the recent popularity of the Milford Track in New Zealand, the Inca Way in Peru; the trails in Nepal, and the route to Everest used by over 10,000 tourists annually. In the U.S., the Appalachian Trail has long been popular and there is substantial and growing use of national and provincial park trails by domestic and foreign tourists. On the popular West Coast Trail, use is restricted, fees are charged and an alternative trail has been provided to cater to demand. The Bruce Trail and the Lake Ontario Waterfront Trail are tourist attractions.

Within the Biosphere boundaries, and also crossing through the broader region are a number of vital and well used trail systems. In addition, some are in formation or relatively new. Among these are:

- Trans-Canada Trail
- Ontario Waterfront Trails System
- Rideau Trail
- Cataraqui Trail
- Ontario Parks Trails: Charleston Lake and Frontenac Provincial Parks
- St. Lawrence Islands National Park trails
- Thousand Islands Parkway bike path
- Thousand Islands Water Trail
- Leeds and Grenville Snowmobile Association Showcase Trail 1
- Triangle Cross Country Ski Trails, Macintoch Mills

Primary Goals of the Biosphere Trails Council:

The primary goals of the proposed Biosphere Trails Council are to develop a trail experience that:

- Captures the essence of the surrounding landscape and setting and is distinctive in image and appeal from similar trails in other locations;
- Attracts a wide variety of users, from those seeking the ultimate outdoor challenge to those wanting a less demanding experience; and even where possible, gives disabled visitors an opportunity to experience trails;
- Ensures the safety of all visitors;
- Protects the landscape and works within the development guidelines set by government and voluntary regulations and policies;
- Provides additional services and facilities as necessary to enhance visitors' overall experiences and helps trail groups operate in a cost-effective manner; and
- Expands opportunities for the involvement of private/public sector interests through partnerships and individual efforts that can further promote other tourism-related activities within the region.

Experiences from around the world show that trails systems connect not just one route to another, but as well connect trail users to other local resources, other important ecological sites and to emerging aspects of a future cultural and tourism market such as locally produced food, restaurants and points of cultural interest. Successful sustainable communities integrate trail systems to the benefit of both their residents and visitors.

3. Why a Biosphere Trails Council?

The Biosphere Network proposes to support the creation of a Biosphere Trails Council which would be designed:

- To represent the trail interests within and logically associated with the Biosphere
- To build more effective communications with the public, partners, local and other governments and potential funders
- To bring together agencies, organizations and governmental elements to build capacity, ability and a common approach
- To advocate for good trails linked to local needs as well as to those of visitors
- Identify and assist in resolution of operational trail issues at all levels

The Ontario Trails Council, for the formation of a regional Trails Council, requires the support of all municipalities, in this case within the Biosphere Reserve, to give legitimacy to an integrative body. Further, such an endorsement would enable the Council to look at its work in a 'whole of landscape' manner. This would also serve the varied needs of municipalities for recreational activities of their citizens, and towards interests in developing and improving all potential sources of economic activity, consistent with responsibilities for sustainable development as outlined in provincial legislation. The Biosphere itself is crossed by many trails, with many trails often crossing municipal boundaries. The Biosphere, as a recognized geological and biological region, provides a broader tableau for maximizing the potential benefits of trails.

Neighbouring Trails Councils

Eastern Ontario Trails Alliance: this is an group of trails organizations, none of which are presently active in the Biosphere.

Lanark County Municipal Trails Corporation Board

Developing the Biosphere Trails Council

A Trails Council has to begin at some point to define a useful role for itself. Therefore, its mandate will only emerge after a period of planning, consultation and thought. This proposal does not seek the endorsement of any specific set of powers, any budget or any specific mandate, except that of developing the ideas and returning with more concrete plans to stakeholders. Therefore, the key characteristics at the outset would be:

- To be developed over time and in response to needs of stakeholders
- All existing trail organizations would be invited to participate
- Without jurisdiction or powers – moving forward on any issue by consensus
- Needs to seek involvement of key institutional players, e.g. local Health Unit and Provincial Ministries of Health, Natural Resources and Tourism, municipalities, Conservation Authorities, Parks Canada
- Volunteer, not-for-profit
- A network, not a replacement, for existing groups

In doing so, the Council will interact with key players. Reinventing a well-functioning wheel is not the goal. The **Ontario Trails Council**, headquartered in Kingston, provides support, guidance and advice to the developmental process.

5. Benefits and Uses of a Trail Council in the Ontario Community

ECONOMIC BENEFITS				
USER GROUP	KM OF TRAIL	EXPENDIUTRE TRAIL USE	EXPENDIUTRE DAY/NIGHT RELATED	TOTAL
Snowmobiles/ATVs	50,000	$682 million	$518 million	$1.2 billion
Hikers	8,000	$70 million	$240 million	$310 million
Urban Pedestrian	4,000	$400 million	$40 million	$440 million
Cyclists - Shared Use	2,000	$20 million	$26 million	$46 million
X-Country Skiers	2 million	$134.5 million	$1.5 million	$136 million
Dog Sledders	34,000	$161,000	322,250	$483,250
Equestrians	71,000	$3 billion	$649,000	$3.7 billion

The above chart, taken from the **Ontario Trails Council** research, clearly shows that there is considerable benefit to be derived from maximizing the use of trails. The benefits extend deeply into the community in terms of:

- Society and culture
- Health
- Recreation
- Environment
- Economy
  - Tourism – a growing resource

A current and rapidly growing trend is for people to take vacations closer to home, especially with higher fuel costs. Furthermore, surveys by the Canadian Tourism Commission reveal that the majority of travellers today, whether at home or abroad, would choose sustainable tourism activities. Many trail organizations service that need with activities such as paddling, cycling, hiking and snowmobile tours. And as a result, money is pumped into the local economy through retail sales, lodging and food.

Local businesses benefit. For example, the Bruce Trail alone averages 400,000 users annually, 70% of whom purchase nondurable goods during their visit. The average daily expenditure is about $20 (or $5,600,000 annually). Approximately 75% of this is spent within the 10 km wide corridor.

That being said, it is also necessary to say that the mere existence of trails is not going to generate the full tourism potential, let alone full recreational and health benefits of residents. A recent Ontario government workshop to develop the potential of trails recognized that:

- Ontario's trails are a substantial resource: many can be considered as "Trail tourism assets", and

- There is a large, unrealized economic potential of trail tourism, perhaps because it isn't well known or understood, or because it hasn't previously been a focus

Further, it was noted that there is agreement needed for:

- better coordination of information about trails
- clear identification of which types of trails have tourism potential
- definitions and awareness of "trail products"
- paying attention to "demand" as well as "supply"
- better coordination of trails marketing, with trails development and management (including risk management)
- resolving liability issues[1]

Similarly, the Biosphere Network itself, through its major initiative on developing a sustainable tourism industry within the Biosphere, has learned that:

- there are major gaps between potential users of trails as a destination and the kinds of information they would need to make the decision to travel here;
- tourism operators lack tools to find information on trails in a seamless and integrated way;
- there is little co-ordination and cross-referencing about trails as a tourism and economic asset among trails groups (usually volunteers), including government providers of trails; and
- trail groups focus on their valuable work in their individual areas, and seldom (though not maliciously) work with other groups, especially those with differing trail uses, e.g. motorized versus non-motorized, water versus cycle.

A list of organizations now engaged in encouraging the development of trails, and showing the many benefits they are seen as providing:

- Ministry of Municipal Affairs and Housing – Funding Support
- Infrastructure Ontario – capital infrastructure financing information
- Minister of Health – use of trail for health promotion through Health Units
- Trillium Foundation – grants or organizations
- Ontario Ministry of Food and Agriculture – guidance to trail managers developing trails in farming regions
- Ministry of Tourism – direct project support in recreational and tourism trails industry
- Ontario Tourism Management Partnership Corporation – marketing support to tourism operators and industry leaders, e.g. Paddle Ontario
- Human Resources and Social Development Canada – employment opportunity to persons learning new skills in recreational trail management sector
- Ontario Works – help to trail improvement projects
- Ontario Heritage Fund - provides information regarding steps persons can take to fund and preserve important heritage elements in their community.

[1] http://www.mhp.gov.on.ca/english/sportandrec/tourism-workshop-e.doc

Perceived Benefits of the Biosphere Trails Council:

Environmental

- Ensuring ecologically safe trails
- Increasing an understanding and appreciation of environmental issues

For Existing Trail Organizations and Users

- Pool scarce resources
- Share information
- Build connectivity
- Getting information to users

Anticipated Outcomes

- Gathering and sharing information
- Making trail information available to local tourist operators, local business and to potential users on an electronic basis, and linked to key websites
- Developing greater co-operation among individual trail groups
- Building on the potential of provincial and national trail initiatives such as the Ontario Waterfront Trail and the Trans Canada Trail system
- Developing training packages for trail builders, maintainers and monitors
- Fostering an integrated planning approach to trails for the Biosphere
- Fostering sound ecological practices on all trails
- Using a healthy and attractive trail system to build and foster the identity of the Biosphere as a destination and to foster the better health of its residents
- Creating signage and directional systems to better inform potential users of the location and extend and use of specific trails
- Developing, with municipal partners, an overall trail strategy that would identify and recommend ways to bridge the gaps that are identified
- Working to find funds and support for this vision

Fundamental Considerations:

- No new level of jurisdiction
- Voluntary and non-intrusive
- Help not complication
- Integration not overall
- Inclusive of all trails, but not building a single trail system
- Need to respect specific trails uses and not create conflicting uses

Practical Steps to Move Forward

- Municipal approvals
- Buy-in/sign-on of existing trails groups
- Linkage to neighbouring and regional groups, e.g. Eastern Ontario Trails Alliance (www.thetrail.ca) and the Ontario Trails Council
- Establishment of Council and planning scope of work and effort

REPORT TO OPERATIONS COMMITTEE – AUGUST 11, 2008

2008-121-08
TRANSIT UPDATE

C.J. COSGROVE, P.ENG.
DIRECTOR OF OPERATIONS
V. HARVEY
SUPERVISOR OF TRANSIT/SOLID WASTE

RECOMMENDED

THAT Report 2008-121-08, Transit Update, be received for information purposes.

PURPOSE

The Transit Service Delivery Review presented to Council in December of 2007 stated that staff would provide a 6 month update to Council.

BACKGROUND

In 2004 the Province re-introduced Transit Subsidies in the form of the Provincial Gas Tax Subsidy and Capital Subsidies. The purpose of the Gas Tax Subsidy is to provide financial assistance to municipalities to increase ridership and not to simply reduce municipal costs of the status quo system. Allocation of the subsidy to the Operating and Capital Budgets of the Conventional and/or Para Transit Systems is at the discretion of the municipality but it must be utilized solely for transit purposes. Capital Subsidies are designated for the acquisition of new and replacement buses. Attached to this report as Schedule A is the Conventional Transit Capital spreadsheet that details the transit funds received by the City and the allocations which have resulted in reduced operating costs and the purchase of both new and replacement buses with no capital costs on the tax base.

ANALYSIS/OPTIONS

Conventional Transit

The Conventional Transit System was expanded from a 2 bus to a 3 bus system in September 2007. Attached to this report as Schedule B, is a comparison of the 2007 and YTD 2008 Conventional Transit System. The 2008 Budget projected ridership of 102,000. Based on the YTD 2008 statistics, the year end ridership is projected at 94,500. Although it appears that the budgeted ridership will not be realized, this does represent an increase of 19,793 rides over 2007. The same holds true for the projected revenue. Although the YTD 2008 revenue appears low at this time, bulk purchases of tickets/passes occur throughout the year by agencies and it is anticipated that this will occur. As well, the ridership is on an increasing trend towards the projected ridership, on a monthly basis.

At the current time, 3 of the 4 Conventional Transit buses are accessible. The City purchased a new mid-sized, accessible, low floor bus last year but it has had mechanical problems and has been out of service numerous times. It is expected that the issues should be resolved in the near future. This has resulted in delaying the implementation of the program to encourage Para Transit Passengers to ride the Conventional Transit System through a fare incentive program.

As noted on Schedule A, a bus is scheduled to be replaced this year and the tender has been delayed until this report is presented to Council. Once this bus is replaced, the system will be 100% accessible. As noted, the funds identified for this vehicle are in the amount of $90,280. Due to the mechanical problems with the new low floor bus and passenger and driver feed back, this new bus will be a high floor bus with a lift, which is similar to two other buses in the fleet. It is eligible for the 1/3 capital subsidy from the province. As noted, due to the allocation of subsidies, there is no cost to the tax base to purchase this vehicle. The Para Transit Contract terminates at the end of 2009 and at this point it has not been determined if the service will be provided by contract or by municipal staff and the reduced cost of this high floor conventional bus will provide funds for the Para Transit bus purchases if required. Information on this will be provided in the 2009 budget process.

Para Transit

Attached to this report as Schedule C, is a comparison of the 2007 and YTD 2008 Para Transit System. The 2008 year end ridership and revenue are projected to be on budget and similar to 2007. Even though service to Rosedale Retirement Home has ceased, this has been offset by the continued trend of increase in ridership.

FINANCIAL IMPLICATIONS

At the current time there is a predicted 2008 deficit in the Conventional and Para Transit Budget of $61,941 due to the reduced ridership increase being lower than projected on the Conventional Transit System and the increased cost of fuel for both systems. Allocation of the Provincial Gas Tax Subsidy to the operational and capital budgets is determined by a base line funding formula established by the Province, however the City can direct the funds to either the operational and/or the capital budget. At year end, staff will review these allocations and report back to Council the financial impacts of reallocating funds from the capital budget to the operating budget to mitigate a portion of this deficit.

CONCLUSION

That Council accepts this report for information purposes.

C.J. Cosgrove, P.Eng.
Director of Operations

V. Harvey
Supervisor of Transit/Solid Waste

D. Cyr
Director of Finance

B. Casselman
City Manager

Conventional Transit Capital

	2004/2005 Allocation $112,260 $28,065 per quarter	2005/2006 Allocation $164,703 $41,176 per quarter	2006/2007 Allocation $217,423 $54,356 per quarter	2007/2008 Allocation $218,350 $54,588 per quarter
	Actual Funds Received in 2005	Actual Funds Received in 2006	Actual Funds Received in 2007	Esitmated Funds Received in 2008
Jan - March	$28,065	$82,352	$54,356	$109,176
March - June	$28,065	$41,176	$54,356	$54,588
July - Sept	$28,065	$41,176	$54,356	$54,588
Oct - Dec		$54,356		
	$84,195	$219,060	$163,068	$218,352
	2005 *actual*	2006 *actual*	2007 *actual*	2008 *projected*
Provincial Gas Tax				
Balance Carry Over from Previous Year	$28,065	$0	$171,046	$33,302
Interest on Previous Year's Balance	$1,226	$3,817	$9,618	xxxx
Gas Tax Funds Received	$84,195	$219,060	$163,068	$218,352
Transfer to Conventional Transit Operating Budget	($7,507)	($28,311)	($75,660)	($118,694)
Transfer to Para Transit Operating Budget	($1,893)	($23,520)	($14,894)	($14,758)
Transfer to City Fleet Account - Bus Purchase + Outfit	($104,086)		($197,428)	
Transfer to Minor Capital			($22,448)	
Sub Total A	$0	$171,046	$33,302	$118,202
Unconditional Transit Grant				
Balance Carry Over from Previous Year			$16,912	$50,736
Interest on Previous Year's Balance				xxxx
Funds Received	$0	$16,912		
Unconditional Transit Grant - 2007 Ontario Budget			$40,023	
Transfer to Para Transit Operating Budget			($6,199)	
Transfer to Minor Capital				($13,525)
Sub Total B	$0	$16,912	$50,736	$37,211
Capital Transit Grant				
Balance Carry Over from Previous Year				$0
Interest on Previous Year's Balance				
Provincial Transit Allocation for Capital - 2007 Fall Economic Statement	$0			$101,473
Interest on Previous Years Capital Transit Allocation				
Transfer into City Fleet Reserve				($60,187)
Sub Total C	$0			$41,286
Total = Sub Total A+B+C	**$0**	**$187,958**	**$84,038**	**$196,699**
Capital Budget				
	2005 *actual*	2006 *actual*	2007 *actual*	2008 *projected*
Bus # 1	$78,288			
Bus # 2	$78,288			
Bus # 3				$90,280
Bus # 4			$197,428	
Out Fit Bus				
Para Bus # 1				
Para Bus # 2				
Para Bus # 3				
Gross Capital Cost	$156,576	$0	$197,428	$90,280
Source of up to 1/3 MTO Bus Replacment Subsidy	($52,489)		$0	($30,093)
Funding Required For Bus Purchase	$104,087	$0	$197,428	$60,187
Funding For Minor Capital & Customer Service Standard				
Funding Required for Bus Shelters			$22,448	$13,525
Additonal Required Financing	$104,087	$0	$219,876	$73,712
Transfer from Capital Grant				($60,187)
Transfe from Unconditonal Transit Grant				
Transfer from Gas Tax - bus purchase + outfit	($104,087)		($219,876)	
Transfer from Minor Capital				($13,525)
City Capital Cost on Taxes	**$0**	**$0**	**$0**	**($0)**

2007 Conventional Transit

	TOTAL RIDES				REVENUE	TRANSFERS				TOTAL BOARDINGS
	RED	BLUE	Green	TOTAL		RED	BLUE	Green	TOTAL	
JAN	2,425	4,060		6,485	$7,169	797	759		1,556	8,041
FEB	2,229	3,874		6,103	$10,722	794	702		1,496	7,599
MAR	2,618	4,624		7,242	$14,634	925	835		1,760	9,002
APRIL	2,217	3,923		6,140	$14,138	875	706		1,581	7,721
MAY	2,536	4,761		7,297	$10,832	960	859		1,819	9,116
JUNE	2,470	4,263		6,733	$13,828	815	745		1,560	8,293
JULY	2,171	3,758		5,929	$9,626	683	581		1,264	7,193
AUG	2,449	3,843		6,292	$9,262	783	680		1,463	7,755
SEPT	1,629	2,069	1,317	5,015	$9,110	491	451	486	1,428	6,443
OCT	1,761	2,285	1,825	5,871	$9,494	502	381	646	1,529	7,400
NOV	1,737	2,336	1,885	5,958	$7,565	476	352	637	1,465	7,423
DEC	1,678	2,098	1,866	5,642	$16,041	390	321	576	1,287	6,929
TOTAL	25,920	41,894	6,893	74,707	$132,421	8,491	7,372	2,345	18,208	92,915

2008 Conventional Transit

	TOTAL RIDES				REVENUE	TRANSFERS				TOTAL BOARDINGS
	RED	BLUE	Green	TOTAL		RED	BLUE	Green	TOTAL	
JAN	1,699	1,946	1,723	5,368	$6,118	445	324	560	1,329	6,697
Jan free week	940	1,012	1,158	3,110						3,110
FEB	2,100	2,321	2,061	6,482	$9,438	551	482	775	1,808	8,290
MAR	2,347	2,548	2,231	7,126	$8,615	623	432	676	1,731	8,857
APRIL	2,392	2,924	2,345	7,661	$16,822	602	531	763	1,896	9,557
MAY	2,363	2,857	2,084	7,304	$9,984	568	521	707	1,796	9,100
JUNE	1,740	2,099	1,488	5,327	$8,625	437	350	490	1,277	6,604
June free week	1,246	1,317	1,174	3,737						3,737
JULY 1 to 19	1,561	1,735	1,385	4,681	$0	404	291	423	1,118	5,799
AUG	0	0	0	0	$0				0	0
SEPT	0	0	0	0	$0				0	0
OCT	0	0	0	0	$0				0	0
NOV	0	0	0	0	$0				0	0
DEC	0	0	0	0	$0				0	0
TOTAL	16,388	18,759	15,649	50,796	$59,602	3,630	2,931	4,394	10,955	61,751

2007 Para Transit Satistics

	Registered Passengers		Total Passengers	Passenger Revenue	Escorts	Total Riders Passengers & Escorts
	wheel chair	walkers				
JAN	628	724	1,352	$2,344	233	1,585
FEB	571	739	1,310	$2,184	176	1,486
MAR	658	893	1,551	$2,648	240	1,791
APRIL	692	866	1,558	$2,406	253	1,811
MAY	725	875	1,600	$2,777	311	1,911
JUNE	673	841	1,514	$2,599	263	1,777
JULY	603	727	1,330	$1,991	232	1,562
AUG	721	749	1,470	$2,145	326	1,796
SEPT	584	764	1,348	$2,547	198	1,546
OCT	675	921	1,596	$2,578	245	1,841
NOV	731	940	1,671	$3,132	256	1,927
DEC	612	758	1,370	$2,394	235	1,605
TOTAL	7,873	9,797	17,670	$29,745	2,968	20,638

%	%
Brockville	Elizabethtown
80.96%	19.04%

2008 Para Transit Satistics

	Registered Passengers		Total Passengers	Passenger Revenue	Escorts	Total Riders Passengers & Escorts
	wheel chair	walkers				
JAN	677	795	1,472	$2,298	251	1,723
FEB	602	733	1,335	$2,416	226	1,561
MAR	598	714	1,312	$2,441	233	1,545
APRIL	680	847	1,527	$2,364	255	1,782
MAY	682	874	1,556	$2,288	260	1,816
JUNE	623	770	1,393	$2,389	264	1,657
JULY			0			0
AUG			0			0
SEPT			0			0
OCT			0			0
NOV			0			0
DEC			0			0
TOTAL	3,862	4,733	8,595	$14,196	1,489	10,084

%	%
Brockville	Elizabethtown
84.58%	15.42%

August 1, 2008

REPORT TO OPERATIONS COMMITTEE - AUGUST 11, 2008

2008-123-08
BROCKVILLE SPORT & RECREATION ADVISORY GROUP - COMMUNITY DEVELOPMENT POSITION PAPER ON SPORT, RECREATION AND TOURISM

DAVID MORGAN, DIRECTOR
PARKS & RECREATION
DAVID C. PAUL, DIRECTOR
ECONOMIC DEVELOPMENT

RECOMMENDATION

THAT Council endorse ***Schedule A*** being a proposal to create an umbrella organization to assist the development of sport and recreation opportunities for residents and visitors to Brockville; and

THAT staff be directed to organize a community sport and recreation focus group representing a cross section of business and residents involved in the delivery of special events, sport, tourism and community development, and

THAT this committee uses the attached position paper to organize the necessary principles and protocols associated with successfully establishing such a body for Brockville.

PURPOSE

To provide a position paper for Council consideration on establishing and promoting sport and recreation activities for residents of and visitors to the City of Brockville while enhancing facilities and participation in special events, sport tourism and recreation programs.

BACKGROUND

City Council is increasingly being approached for both financial and technical support associated with the hosting and promotion of sporting and recreational events. The introduction in recent years of higher level signature sporting events such as the Senior Winter Games, the IIHF World Juniors, Can Am Slo-Pitch Championships and other existing events such as the Shorty Jenkins Classic advocates the need to establish a position paper on the subject and the identification of actions to better assess its importance and related contribution to both the social and economic fabric of our City.

The Parks and Recreation Department and the Economic Development office have included this activity in their 2008 work plans. The focus on the Economic Development is aligned to Sports Tourism with its related economic benefits, while the Parks and Recreation Department has a mandate to review both the impacts on sporting activities

for residents as well as the need for on-going assessment and improvements to infrastructure. The department is an advocate for healthy lifestyles, sport and recreation facility services, event management and program development.

A favourable endorsement from Council on the recommendation and associated proposal would provide both encouragement and direction for City staff and community volunteers to complete the necessary due diligence towards an establishment of a Brockville Sport and Recreation Advisory Group.

ANALYSIS/OPTIONS

The development of a position paper for Council's consideration is timely based on the following points:

- The growing industry trends in sport tourism.
- Identifiable opportunities for Brockville to secure signature sporting events.
- Well established and recognized sporting organizations that already exist within Brockville.
- The need to identify and prioritize Brockville's strengths in certain sports and our ability to successfully secure additional sanctioned tournaments based both on our competitiveness and state of facility infrastructure.
- Need to extend our shoulder season tourism through the development of sports tourism.
- A recognized need by governments to direct more attention to create an active and healthy population with particular focus on childhood obesity and potential to access funding.
- Need and/or related opportunities associated with developing better hosting services for sporting events through better facilitation and coordination with the existing sporting organizations.
- A need to organize and administer access to funding and sponsorship.

POLICY IMPLICATIONS

Upon completion of the recommendations as proposed in the Brockville Sport and Recreation Advisory Group paper, Council may wish to establish some policy directions concerning the request for funding and technical resources on future sporting activities/events.

FINANCIAL CONSIDERATIONS

There are no direct funds being solicited or required at this time to further the process of establishing this advisory group however this may be a consideration once the committee

is up and running and working towards certain objectives in this service area. A cost associated with researching some elements of the position paper are being expensed through a summer student program within the Economic Development office.

CONCLUSION

Adoption of the attached Brockville Sport and Recreation Advisory Group paper (Schedule A) will enhance the community's capability of pursuing a sports tourism initiative for the community as well as facilitating the education and awareness needs associated with a healthy community.

D. Morgan
Director of Parks and Recreation

D. Paul
Director of Economic Development

D. Cyr
Director of Finance

(on vacation)
B. Casselman
City Manager

BROCKVILLE SPORT ADVISORY GROUP

A Proposal to Create an Umbrella Organization to assist the Development of Sport and Recreation Opportunities for Residents and Visitors to Brockville

Sport and Recreation organizations have been in existence for many years with a purpose to provide and promote amateur sports, training, fitness, sporting competitions and events. Most of these organizations are non profit, completely independent, rely primarily on volunteers (73%) for their operations and have been in existence for more than 20 years. Only 27% of these groups are registered as charitable organizations.

Brockville sport organizations have been active for many years and recently there has been a pent up demand for increased sport tourism, facility development, youth sport opportunities and creating a healthier community for all residents.

Increasingly the City of Brockville has recognized the economic benefit and community services relationship with these kinds of organizations and the significant impact they have on the development of youth, community wellness, business development, economic spin off and other factors. Sport Tourism is a new focus and our community has a number of competing interests with similar goals. Sport Tourism is one term that is being used today to capture the sport movement taking place and there seems to be a sense of need to get more organized to take advantage of this movement. While it makes sense to be pro active and look for ways to support this phenomenon we should be careful not to invent an organization that may stifle all the great things that are happening independently but rather develop a strategy that will support this growth.

The mission of Brockville Sport Advisory Group (BSAG) could be to promote sport and recreation activities for residents and visitors to the City of Brockville. We are committed to enhancing facilities and participation opportunities in a number of sectors which include:

1. Developing Physical Literacy for our Youth. Childhood obesity and rising inactivity among children threatens the future health of Canada and the problem needs to be addressed now. To create an active and healthy population, children need a sound foundation of movement and sport skills to build on later in life.

2. Special Event and Tournament Promotion. Communities across Ontario and Canada are waking up to the reality that sport event promotion is big business, creates economic wealth, encourages volunteerism and attracts visitors and business to your community. This is not new, however it is now being recognized as an important tourism and economic engine for any community if done well.

3. Sport Program and Facility Development. BSAG could recognize and promote the importance of maintaining and enhancing facilities that will encourage participation for teams and individual recreation participants and elite athletes.

There are a number of organizations involved in the delivery of these kinds of services in the Brockville community and in some instances, there are competing interests. A Brockville Sport Advisory Group may assist in the collaboration and development of these various agencies to improve and enhance the importance of their objectives. A Sport Advisory Group can provide a coordinated approach (quasi governance type body) to assist and support sport development in all sectors. These sectors could include tournaments, programs, coaching, training, facility infrastructure and skills training.

A Brockville Sport Advisory Group would go beyond a mandate of something called sport tourism and serve all interests in the field of sport and recreation with a primary goal to improve quality of life for residents and visitors and to get people more active. The group's focus could be on things like:

- advocacy
- facility infrastructure
- fairness
- access
- grant support
- research and development
- marketing and promotions

I don't believe the mandate for this group needs to be focused on running events or managing sport organizations but rather an enabler and resource system to support local initiatives like the Can Am Slow Pitch Championships.

A Brockville Sport Advisory Group mandate would go beyond and support important issues like childhood obesity and rising inactivity among children which threatens the future health of Canada. The problem needs to be addressed now if we are to prevent a generation of children from growing up with chronic health problems[1]. There are many agencies we can partner with to overcome this

[1] Developing Physical Literacy

challenge including Every Kid in our Community, Brockville Sport, boards of education, City Council, fitness agencies, Ministry of Health Promotions, etc.

Lifelong participation in sport and physical activity significantly contributes to the quality of life for all Ontarians. Ontario's youth are significantly becoming more overweight and of equal concern is the finding that slightly over half the adult population in Ontario is physically inactive[2].

One might suggest that Brockville could become recognized as a community where people become more active as they age.

There is a need for the City of Brockville to provide leadership in ensuring that all youth, regardless of their socio-economic status, have opportunities to participate in sport. Evidence suggests that young people involved in sport and leisure are far less likely to get involved in negative activities such as abuse, violence and crime.

RECOMMENDATION:

1. A Brockville Sport Advisory Group be established consisting of no more than seven representatives from the community. This can be done on a formal level with City Council.

2. The Sport Advisory Group should consider a mandate for infrastructure improvements, advocacy, fairness, grant resources, access, marketing and promotions.

3. The Sport Advisory Group select the following events to case study and complete a steam model economic impact study:

    - Can Am Slow Pitch Championship
    - Winter Fest 2009
    - IIHF World Juniors

4. Address the provincial document Active 2010 and report on the local impact.

5. Complete the local sport and facility inventory.

6. Investigate a model for marketing and promotions related to Sport Tourism and the relationship to our local sport organizations and events.

David Morgan
03 June 2008

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[2] Jim Watson, Minister Health Promotion: Active 2010

30JULY08
REPORT TO OPERATIONS COMMITTEE – AUG 11, 2008

2008-124-08
REYNOLDS PARK – RISK ASSESSMENT AND RECORD OF SITE COMPLETION

C.J. COSGROVE, P.ENG.
DIRECTOR OF OPERATIONS
P.E. RAABE, P.ENG.
MUNICIPAL ENGINEER

RECOMMENDATION

THAT XCG Consultants Ltd. be retained to undertake a Risk Assessment and prepare a Record of Site Condition for the Reynolds Park property; and

THAT the estimated fee of $78,258 be charged to account C7011-WSPD.

PURPOSE

To retain a consultant to undertake a Risk Assessment and file a Record of Site Condition (RSC) for the Reynolds Park property. A RSC is required prior to redeveloping the property for park use.

BACKGROUND

The Environmental Protection Act requires that a RSC must be filed prior to a change in property use from commercial or industrial to a residential or parkland use. If a property is currently unused, it is deemed to have the property use to which it was most recently put. Therefore, for the purpose of determining whether the filing of an RSC is necessary, the Reynolds Park property is considered an industrial property.

The person filing a RSC must certify that any contamination of the soil and groundwater on a property is below the allowable limits, or that there is an acceptably low level risk of adverse impacts to people or the environment due to the contamination being above the allowable limits.

Phase I and Phase II Environmental Site Assessments (ESA's) of the Reynolds Park property from the 1990's identified the presence of coal and ash containing metals and hydrocarbons in excess of the soil quality criteria, as well as a smaller amount of soil contaminated with petroleum hydrocarbons. This is not unexpected given the previous property use as a coal storage yard, and a former service station being located nearby.

In addition, the soil and groundwater quality standards have been changed to become more stringent since the 1990's. A review of the test results of the 1990's samples show that additional hydrocarbons and metals are above the current allowable limits.

There are two options that can be followed to permit the filing of a RSC for the Reynolds Park property. First, the contaminated material could be removed and disposed of at an approved location. Given the estimated quantities of material involved, this could cost

between $500,000 and $1,000,000. Alternatively, given the nature of the contamination and the proposed use of the property, a Risk Assessment could be prepared, identifying risk assessment measures as necessary, to confirm that any risk from the proposed use of the property with the contaminated material remaining in place would be at an acceptable level. Considering the estimated cost to remove and dispose of the contaminated material, and the nature of the contamination in relation to the proposed use of the property, the Risk Assessment option is being pursued.

ANALYSIS

A Request for Proposals was issued to three Eastern Ontario firms known for their expertise in Risk Assessments. The scope of work included: updates to the Phase I and Phase II ESA's to meet the new standards, preparation of the Risk Assessment, and preparation and filing the RSC.

The proposals are summarized as follows:

1. XCG Consultants Ltd.	$78,258
2. Golder Associates Ltd	$99,050
3. Global Tox/Thompson Rosemount Group	$120,410

Following a review of the proposals and checking of references, it is recommended that the XCG Consultants Ltd. be retained to undertake this project.

It is anticipated that the RSC will be filed in January 2010, assuming that the Ministry of the Environment review of the Risk Assessment will take approximately eight months.

POLICY IMPLICATIONS

Council approval is required for this contract as per the Purchasing By-Law (090-2005).

FINANCIAL CONSIDERATIONS

There are sufficient funds in Account C7011-WSPD, which will have a balance of approximately $92,000, following the redistribution of an incorrectly coded invoice, to complete this project.

C.J. Cosgrove, P.Eng.
Director of Operations

P.E. Raabe, P.Eng.
Municipal Engineer

D. Cyr
Director of Finance

B. Casselman
City Manager

30JULY08
REPORT TO OPERATIONS COMMITTEE – AUG 11, 2008

2008-125-08
PROPOSED TERMS OF REFERENCE FOR THE PREPARATION OF AN ASSESSMENT REPORT AND SOURCE PROTECTION PLAN: CATARAQUI SOURCE PROTECTION AREA

C.J. COSGROVE, P.ENG.
DIRECTOR OF OPERATIONS
M.M. PASCOE MERKLEY
DIRECTOR OF PLANNING

RECOMMENDATION

THAT Council endorse the June 30, 2008 Proposed Terms of Reference for the Preparation of an Assessment Report and Source Protection Plan for the Cataraqui Source Protection Area.

PURPOSE

To provide Council feedback on the proposed Terms of Reference to the Cataraqui Source Protection Committee.

BACKGROUND

The Clean Water Act was enacted to protect public health by ensuring that clean and plentiful sources of drinking water are available now and in the future. Local plans to protect source water are to be put in place to guide governments, businesses and property owners in reducing or eliminating threats to drinking water sources.

The City of Brockville is located within the Cataroqui Source Protection Area, one of nineteen source protection areas across the province. The Cataraqui Region Conservation Authority (CRCA), plus a member from the Township of Frontenac Islands, has been designated as the Source Protection Authority, and is responsible for the creation of the area Source Protection Plan. The Cataraqui Source Protection Committee, including a provincially appointed chair plus 15 others appointed to represent various community sectors, reports to the Source Protection Authority and will directly oversee the preparation of the Source Protection Plan. Peter Raabe, Municipal Engineer, is one of the municipal representatives on the Committee.

The Committee, supported by CRCA staff, have prepared a proposed Terms of Reference for the creation of the Source Protection Plan (Attachment 1). The Terms of Reference has gone through an initial public review and review by municipal staff. The Committee is now seeking final comments and endorsement from the public and municipalities.

ANALYSIS

The Terms of Reference identifies two components to the work:

1. An Assessment Report that identifies and prioritizes risks to drinking water sources based on technical, scientific data.

2. A Source Protection Plan that outlines policies to address the risks identified in the Assessment Report.

The scope of the work includes the drinking water systems listed in Appendix C-1. The technical studies forming the Assessment Report are listed in Appendix D. A listing of potential policies and policy tools that are available to be incorporated in the Source Protection Plan is discussed on Page 9 of the proposed Terms of Reference. Appendix F-1 illustrates the schedule for the work. Appendix F-5 presents the project budget, which is entirely funded by the Province. All work will be conducted by CRCA staff or consultants retained for specific purposes.

The proposed Terms of Reference is considered a reasonable and balanced approach to meet the intent of the Clean Water Act, and it is recommended that the Terms of Reference be endorsed as presented.

POLICY IMPLICATIONS

None

FINANCIAL CONSIDERATIONS

There is no financial involvement by the City in the preparation of the Source Protection Plan. The financial impacts of implementing the Source Protection Plan are unknown at this time.

C.J. Cosgrove, P.Eng.
Director of Operations

M.M. Pascoe Merkley
Director of Planning

D. Cyr
Director of Finance

(Vacation)
B. Casselman
City Manager

DRINKING WATER SOURCE PROTECTION
ACT FOR CLEAN WATER

CATARAQUI

MEMORANDUM

To: Municipal CAOs and Clerks
Cataraqui Source Protection Area

Date: June 30, 2008

From: John C. Williamson, Chair, Cataraqui Source Protection Committee

File: SPP 2-5, 5-1

RE: REQUEST FOR MUNICIPAL COMMENTS AND COUNCIL ENDORSEMENTS PROPOSED TERMS OF REFERENCE – DRINKING WATER SOURCE PROTECTION

We are writing to solicit comments from your municipality about our proposed Terms of Reference for local drinking water source protection activities under the Ontario *Clean Water Act, 2006.* We would also much appreciate a resolution of endorsement from your Council. This request is our formal notice per Section 9(b) of the *Act.*

The Cataraqui Source Protection Committee has revised its proposed Terms of Reference to reflect comments received on the draft it published in April and discussions at the consultation sessions it hosted in May. The revised document (enclosed) will be posted on the Cataraqui Region Conservation Authority (CRCA) website at www.cataraquiregion.on.ca in late July. As required by regulation, comments from municipalities and the public are due on or before **Wednesday August 27, 2008**. Please send your comments (and Council resolutions) to:

Mr. Robert Morrison, Chair
Cataraqui Source Protection Authority

c/o
Rob McRae MCIP, RPP
Project Manager, Source Water Protection
Cataraqui Region Conservation Authority
1641 Perth Road P.O. Box 160 Glenburnie ON K0H 1S0
(613) 547-6474 fax / robmcrae@cataraquiregion.on.ca

The Cataraqui Source Protection Authority (CRCA Board plus a representative from the Township of Frontenac Islands) will meet in September to review the proposed ToR and any comments that have been received. The Source Protection Authority is responsible for submitting these items (without amendment) to the Minister of the Environment, along with its own comments, by October 20th.

We look forward to the successful completion of an Assessment Report and a Source Protection Plan for the Cataraqui watersheds. If you have any questions or comments, or if you would like additional copies, please contact Rob McRae, Project Manager, at the above-noted address. Thank you for your ongoing assistance with drinking water source protection.

Yours truly,

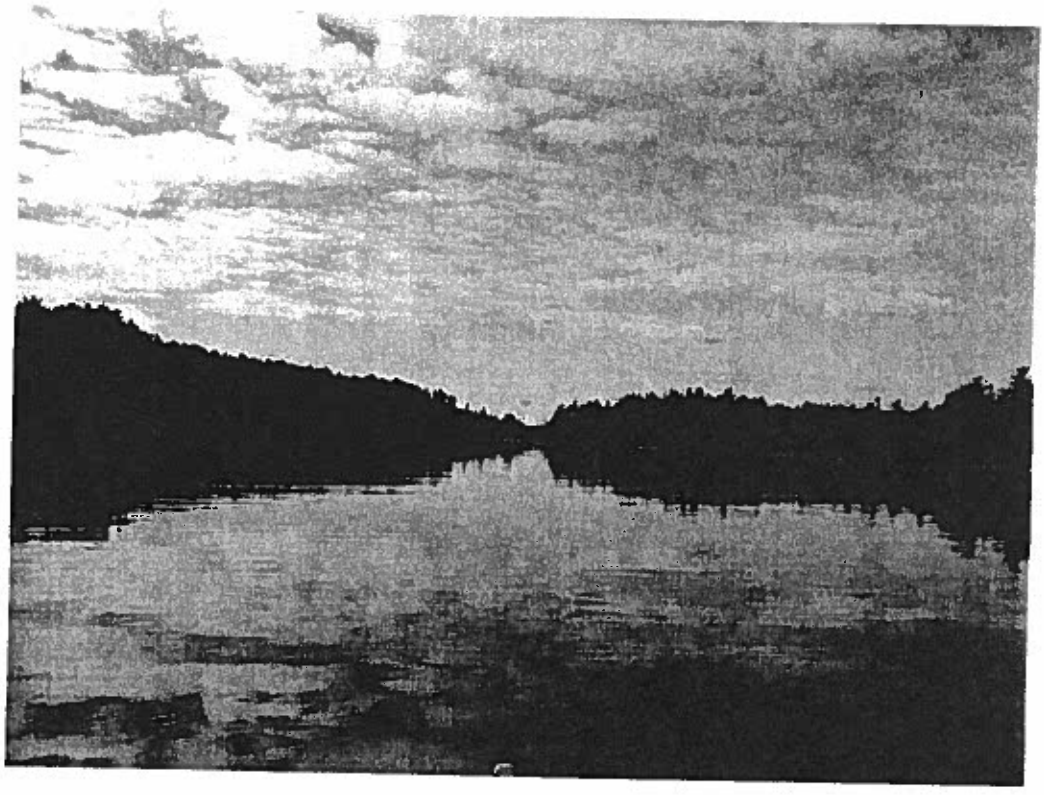
John C. Williamson
Chair, Cataraqui Source Protection Committee

(w/ encl.)

DRINKING WATER SOURCE PROTECTION
ACT FOR CLEAN WATER

CATARAQUI
Source Protection Area

Proposed Terms of Reference for the Preparation of an Assessment Report and a Source Protection Plan: Cataraqui Source Protection Area



Cataraqui Source Protection Committee

June 30, 2008

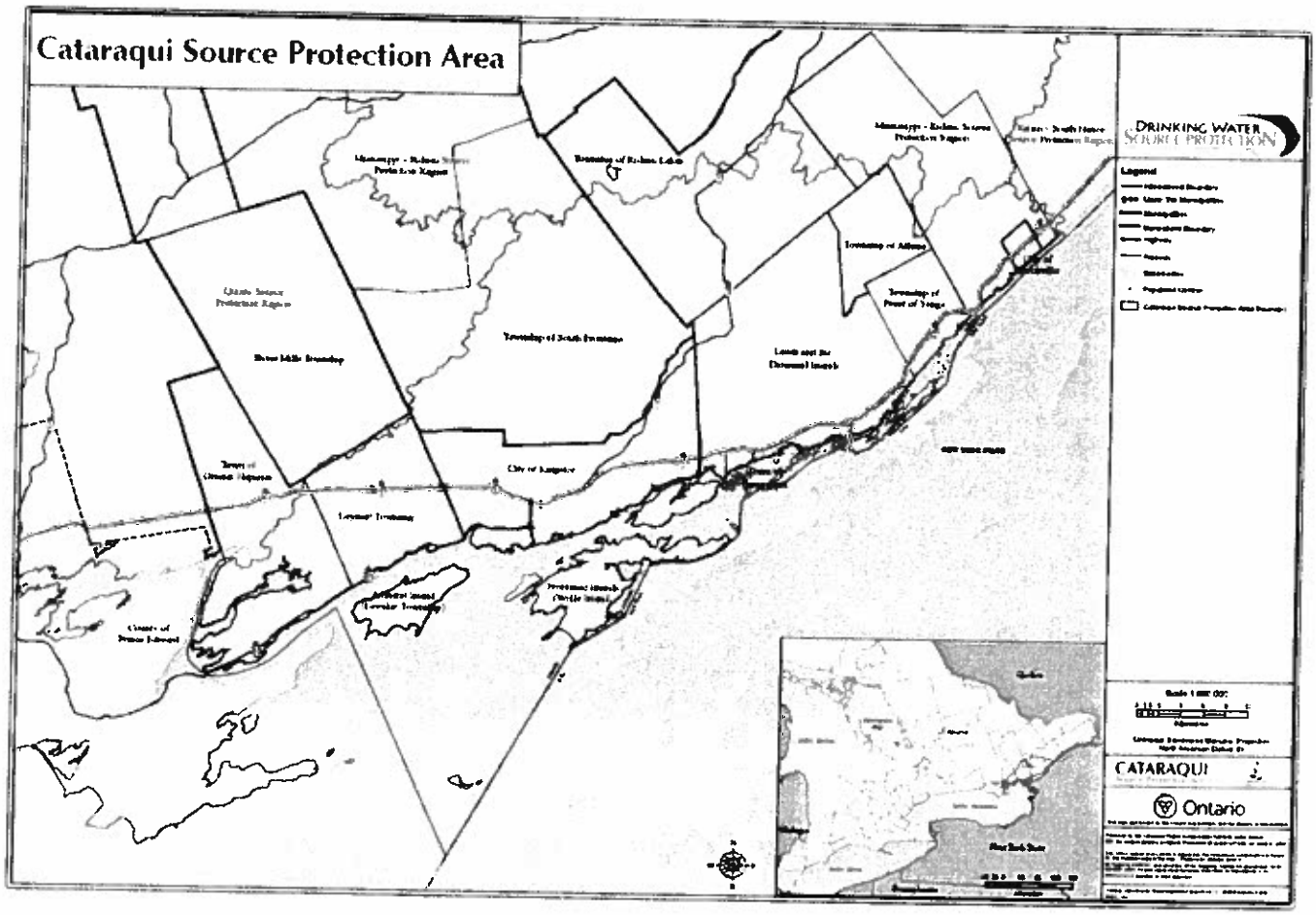
Table of Contents

Executive Summary

Ontario's *Clean Water Act, 2006* was passed to prevent another drinking water contamination tragedy like the one that occurred at Walkerton. Its purpose is to protect public health by ensuring that clean and plentiful sources of drinking water are available now and in the future. Local plans to protect source water will be put in place to guide actions by all levels of government, businesses, property owners, and others to reduce or eliminate threats to our drinking water sources.

To accomplish this goal, 19 source protection areas or regions have been established across Ontario. The Cataraqui Source Protection Area has been established in southeastern Ontario. It includes the jurisdiction of the Cataraqui Region Conservation Authority (CRCA) plus the Township of Frontenac Islands and some additional areas along the St. Lawrence River.

Each area or region has two groups collaborating to implement the provisions in the *Act*. Locally, the first is the Cataraqui Source Protection Authority ("SP Authority"). This is composed of 17 members of the CRCA plus a member from the Township of Frontenac Islands. The second group is the Cataraqui Source Protection Committee ("Committee"). This includes a provincially appointed chair, 15 others appointed by the SP Authority to represent various community sectors, plus three non-voting members representing the SP Authority, public health units, and Ontario's environment ministry. All members, including the chair, are residents of the Source Protection Area. The SP Authority administers the process; the Committee conducts research and develops the proposed source protection plan in consultation with local communities.



The Committee has written this document, called "Terms of Reference" (ToR), as its proposed work plan and budget for development of an assessment report and a source protection plan. It defines the scope of research and planning, assigns roles and responsibilities, establishes timelines and estimates funding and is subject to public comment. The ToR must ultimately be approved by the Minister of the Environment. It may subsequently be amended to reflect new regulatory obligations or technical information. Depending on the scale of the amendment(s) it may be necessary to open the revised document to the general public for comment.

The Committee's mission statement, included in the ToR, stresses cooperation with local communities and Ontario's government to protect water quality and quantity. This happens through consensus-based decisions reached in an open and consultative manner. Consultation will involve the region's 200,000 residents in all or part of 12 municipalities in three counties spanning 3,600 square kilometres of the Source Protection Area.

The Cataraqui Source Protection Area is geographically complex. It includes 12 major watersheds draining into Lake Ontario or the St. Lawrence River. About three-quarters of the area's residents live in areas served by municipal residential drinking water systems. Outside these areas, a significant number of private systems are at risk from bacterial contamination and other threats.

The ToR outlines specific considerations for future research about source water within the Cataraqui Source Protection Area. The primary goal is to protect the source water for all twelve of the municipal residential drinking water systems. Vulnerable groundwater areas on the broader landscape are also being considered. Other drinking water systems may be included (under certain conditions) by either the Minister of the Environment or by a municipality.

Initial research about local drinking water threats and issues is expected to be complete by 2010. Work on the source protection plan will begin in 2009 by examining existing policies and programs; a proposed plan must be submitted to the province by 2012. The province covers the cost of the research and planning. Up to $5.7 million is budgeted for local activities.

1.0 Introduction

The Clean Water Act, 2006 enables many communities across Ontario to create and carry out plans that will help to protect local *drinking water* sources. Each *source protection plan* will be approved by the Ontario Minister of the Environment. There are two major components to the work:

1. Produce an **assessment report** - a technical document, based on available scientific data, that identifies *risks* to drinking water sources within *vulnerable areas* and that assigns priority to those risks; and

2. Develop a **source protection plan** - a policy document (based on the findings in the Assessment Report, existing legislation, regulations, and programs, and best practices from other jurisdictions) that outlines policies to address risks to drinking water sources.

Some of the specific tasks that are required to prepare the above-noted documents include:

- Project management to ensure that the work is completed on time, on budget, and within a defined scope;
- Ongoing communication and consultation with local communities;
- The collection, organization, analysis, and secure storage of information about sources of drinking water and *watersheds*;
- Technical studies that will define areas of interest around sources of drinking water and identify risks to them;
- The development and evaluation of policies to address risks to drinking water sources and ensure that our progress is monitored over time.

The Cataraqui Source Protection Committee (SPC) has prepared these *Terms of Reference* (ToR) to guide the local drinking water source protection work that will occur within the Cataraqui Source Protection Area from 2009 to 2012. The ToR document is intended to define the scope of our research and planning work, assign roles and responsibilities, establish timelines, and estimate funding requirements for those four years. Terms that are defined in the Glossary are shown in *italics* when they are first used in the document.

We have prepared proposed ToR in accordance with the detailed requirements of the Clean Water Act, 2006 and Ontario Regulation 287/07. We have examined and discussed the comments that were received on draft versions, and we have strived to reflect them wherever possible.

This document is based on our current understanding of the provincial source protection initiative, which will continue to evolve as the Ontario government releases new regulations and technical standards. Updates to this document may become necessary over time, as additional regulations are released, new technical information becomes available, and/or where there are marked changes needed to our work plan.

Cataraqui Source Protection Committee Mission Statement

The Cataraqui SPC has prepared the following Mission Statement to communicate its intended purpose and role:

The overall objective of the Cataraqui Source Protection Committee in partnership with local communities and the Ontario government, is to protect the quality and quantity of present and future sources of drinking water in the Cataraqui Source Protection Area. We will work with others to gather technical knowledge on which well-informed, consensus-based decisions can be made in an open and consultative manner. We will aim to propose policies in the Cataraqui Source Protection Plan that are appropriate, effective, and economical for local communities. We will make use of the available science to assess drinking water threats and issues and where there is uncertainty we will be mindful of the precautionary approach.

2.0 Background

2.1 Clean Water Act Context

The Government of Ontario passed the Clean Water Act, 2006 to support a new drinking water *source protection* initiative across settled areas of the province. The Act was introduced as part of the government's response to the contaminated water tragedy at Walkerton in 2000, and serious drinking water problems in other locations. Its purpose is to protect public health and safety by helping to maintain (or in some cases restore) clean and plentiful *source water*. Source water is untreated water that is found in underground aquifers and surface water lakes and rivers and that is used to supply a *drinking water system*. Source protection is the first key barrier in the multi-barrier approach to safe drinking water which also includes water treatment, distribution, testing, and corrective action.

The Clean Water Act, 2006 requires that the quality and quantity of source water be protected through actions by all levels of government, conservation authorities, businesses, community organizations, and individuals. Information about potential risks to source water is being recorded in a series of watershed-based *assessment reports*. Examples of potential risks include the overuse of water, spills, and ongoing pollution from a wide range of sources (see Section 4.0 below). The term *drinking water threat* is used to describe the known or potential cause of a problem; for example, a faulty septic system that is contaminating the groundwater. The assessment reports will include a risk assessment that will assign priority to specific threats. Measures to address those threats in an effective manner will be outlined in watershed-based source protection plans. The source protection plan for the Cataraqui Source Protection Area will be developed by the Cataraqui SPC with public consultation, and the plan will be submitted to Ontario's Minister of the Environment for review and approval.

The current priority for the Ontario's source protection initiative is to identify, assess, and protect the source water that is used by municipal residential drinking water systems; in other words, those systems that are owned and/or operated by a municipality and that provide potable water to a village, town, or city. The source water for existing and planned municipal residential systems must be considered within a source protection plan. Vulnerable areas will be defined around the source water for these systems through the delineation of surface water *intake protection zones* and groundwater *wellhead protection areas*. Our attention to drinking water risks will focus on these vulnerable areas.

The Clean Water Act, 2006 does allow for the consideration of source water in some other locations. First, there is ongoing research to identify *highly vulnerable aquifers* and *significant groundwater recharge areas* on the broader landscape. These are also classified as vulnerable areas in which risk assessment work may occur.

In addition, the Minister of the Environment or a municipal council may propose that the source water for certain 'other' drinking water systems be 'elevated' into the scope of work (this process is discussed

below in Section 3.2). Unless they are subject to these 'elevation' provisions, individual private intakes and wells are not directly included within Ontario's source protection initiative. Some users of private facilities may benefit through work that is completed on the broader landscape. For example, the avoidance of chemical spills into the St. Lawrence River will help to prevent the contamination of all downstream intakes, whether they serve one private residence or an entire community.

The Ontario drinking water source protection initiative requires consideration for existing Great Lakes agreements, among them:

- The Great Lakes Water Quality Agreement (1978, as amended) between Canada and the United States of America;
- The Great Lakes Charter (1985, as amended) amongst the provinces and states in the Great Lakes Basin;
- The Canada – Ontario Agreement Respecting the Great Lakes Basin Ecosystem (2002, as amended), and
- The Great Lakes – St. Lawrence Sustainable Water Resources Agreement (2005, as amended).

Great Lakes agreements will be considered as part of efforts in the Cataraqui Source Protection Area. The Act also enables the Minister to set targets relating to the use of the Great Lakes as a source of drinking water.

The initial set of source protection plans must be submitted to the Ontario Ministry of the Environment by 2012. They will include local policies to eliminate "significant" drinking water threats to the source water that is used to supply the drinking water systems under consideration. Other policies will aim to prevent lesser threats from becoming significant in part by directing on-going monitoring programs for specific threats and issues.

Land use planning decisions made under the Ontario Planning Act will need to conform to source protection policies that speak to significant drinking water threats, and will need to have regard to source protection policies regarding other threats. Municipalities will therefore need to reflect the approved source protection plan(s) for their area in their official plans and zoning by-laws. They will also have the ability to enact risk management by-laws that provide for the development and enforcement of risk management plans on specific properties. The source protection plans will also be implemented using various tools (see Section 4.0 below). We anticipate that many of the policies in the plans will build on existing actions. The implementation work will include monitoring of local progress, and the publication of annual reports to the community and the province.

2.2 Cataraqui Source Protection Area

Ontario Regulation 284/07 created nineteen *source protection areas* and *source protection regions* across the province. The Cataraqui Source Protection Area in southeastern Ontario includes the jurisdictional area of the Cataraqui Region Conservation Authority (CRCA), plus the Township of Frontenac Islands and other lands and waters along the St. Lawrence River to the International Boundary (see Appendix 'A'). We are located at the outlet of Lake Ontario, and therefore have an interest in water quantity and quality issues across a large upstream area in the Great Lakes Basin.

Compared to other source protection areas or regions, the Cataraqui can be considered to be 'medium-sized' when factors such as geographic area (about 3,600 square kilometres of land), resident population (about 200,000 people), the number of municipalities (12) and the number of municipal residential drinking water systems (12) are considered. It is also a diverse area, as described in Section 2.2.1 below. Following approval of the ToR, there will be one assessment report and one source protection plan

prepared under the Clean Water Act, 2006 for the Cataraqui area. By comparison, some of the smaller source protection areas in Ontario include only one or two municipal residential drinking water systems, while some of the larger and more complex areas include over fifty municipalities and numerous municipal residential systems.

2.2.1 Description of the Area

The Cataraqui Source Protection Area is characterized by its relative geographic complexity. It includes twelve individual major watersheds (with each one being greater than 50 square kilometres in size) that drain to either Lake Ontario or the St. Lawrence River. The Area includes about 1,000 kilometres of shoreline along these water bodies, when the shoreline around the numerous islands in the Lake and River is included.

The largely rural landscape features shallow soils and exposed and fractured bedrock that is vulnerable to contamination from the surface. The Frontenac Axis bisects the Area; this is a ridge of Precambrian rock that crosses the St. Lawrence River to connect Algonquin Park with the Adirondack Mountains. There are almost 200 inland lakes either on or adjacent to the Frontenac Axis. A World Biosphere Reserve has been identified in this vicinity by the United Nations. It includes part of the Rideau Canal National Historic Site (a World Heritage River) and the scenic Thousand Islands in the St. Lawrence River.

The Cataraqui area includes all or part of twelve municipalities in three counties (see Appendix 'B'). Although many residents live within the City of Kingston, there are many other distinct and prosperous communities such as Amherstview, Brockville, and Gananoque. Agriculture, industry, tourism, and recreation are key local economic activities.

Our drinking water sources include Lake Ontario and the St. Lawrence River, inland lakes and rivers, and groundwater. There appears to be a relative abundance of water resources to meet current drinking water needs in the Cataraqui area. However, low water conditions do result in localized shortages, and the full extent of climate change impacts on water quantity (and quality) within the Cataraqui area remains uncertain at this time.

About three quarters of the Cataraqui area residents live in an area that is served by a municipal residential drinking water system. As outlined in Appendices 'C-1' and 'C-2', nine of the twelve municipal residential drinking water systems are supplied by surface water, while three of those systems are supplied by groundwater. All other Cataraqui area residents obtain their drinking water using private intakes and wells in unserviced villages and hamlets, and in rural areas. Under the Clean Water Act, 2006, such systems may be 'elevated' for inclusion within Ontario's source protection initiative subject to eligibility criteria (see Section 3.2 below).

Unfortunately, source water quality problems, such as bacteria in groundwater and excess phosphorous in surface water, exist throughout the Cataraqui area. A recent survey of private wells in the western part of the Source Protection Area found that about 40 per cent of the wells that were sampled had levels of contamination by bacteria that exceeded health parameters (Trow Associates Inc. for CRCA, 2007). This suggests that the groundwater may be contaminated in portions of the Source Protection Area. The Bay of Quinte (at the west end of the Source Protection Area) was identified in 1986 by the International Joint Commission as an Area of Concern due to water quality problems and habitat loss. Work under a Remedial Action Plan over the past two decades has resulted in improved conditions in the Bay. We can learn from the Remedial Action Plan experience as we move forward with drinking water source protection.

2.2.2 *Local Program Coordination*

The source protection planning process in the settled parts of Ontario is being coordinated by two types of local entities established under the Act in 2007: *source protection authorities* and *source protection committees*:

- The **Cataraqui Source Protection Authority** is composed of the 17 members of the CRCA Board, plus one additional member from the Township of Frontenac Islands. It is responsible for ensuring that the process remains 'on time and on budget', and that draft documents are made available at appropriate times to municipalities, the public, and the Ontario Ministry of the Environment.

- **The Cataraqui Source Protection Committee** is composed of a provincially appointed Chair (Mr. John C. Williamson of Inverary), plus 15 other members who were appointed by the Source Protection Authority from the community. There are five members who represent municipalities, five who represent economic sectors such as agriculture, industry, and tourism, and five who represent other interests such as environmental organizations and the general public. The Source Protection Committee also includes three non-voting representatives from: (1) the Cataraqui Source Protection Authority, (2) Kingston Frontenac Lennox & Addington Public Health and the Leeds, Grenville & Lanark District Health Unit, and (3) the Ontario Ministry of the Environment. The SPC will work closely with local communities to develop the assessment and planning documents required under the Act.

2.2.3 *Involved Parties*

Although the Cataraqui Source Protection Authority and Committee are responsible for coordinating the source protection planning process, there are many others that contribute much needed information, guidance, and cooperation. Interested parties are welcome to share information, ask questions/make comments or attend meetings during the planning process. The potential role(s) of some of the other involved parties is described in the list below:

- First Nations – provide traditional knowledge of water resources and watersheds, comment on proposals;
- Local researchers – partner/cooperate to identify and fill data and knowledge gaps;
- Municipalities – provide data/comments and incorporate source protection policies in official plans, zoning by-laws and other land use planning documents;
- Non-governmental organizations – provide information and comments;
- Public utilities – provide data/comments and revise emergency planning documents, as required;
- Private landowners – participate in risk assessments and incorporate best management practices to protect municipal/residential drinking water sources;
- Provincial/federal ministries – provide data and/or guidance and funding;
- Transportation agencies – provide information on potential threats and help to implement policies and practices to protect drinking water; and
- United States and New York agencies – collaborate with and implement policies complimentary to those required to protect the drinking water intakes in Lake Ontario and the St. Lawrence River.

It should be noted that a coordinated approach to reach the involved parties will be used whenever possible. For example, contact with United States and New York authorities will likely be made in concert with the Raisin-South Nation Source Protection Committee and the Ontario Ministry of the Environment.

3.0 Scope of Assessment Report Work

The key objective of the assessment report is to identify and prioritize risks to the quality and amount of water that is available for drinking. Appendix 'D' outlines the types of technical studies that have been or will be undertaken to achieve this objective. The technical work is being undertaken by qualified professionals, and it will normally be subject to a peer review by others before it is endorsed by the Cataraqui Source Protection Committee for inclusion in the Cataraqui Assessment Report. This section of the ToR document discusses the scope of the assessment report work (i.e. which sources of drinking water will be considered in the Cataraqui Source Protection Area). Topics discussed below include: the source water for municipal residential drinking water systems; the potential inclusion of 'other' drinking water systems; and Area-wide groundwater vulnerability.

We anticipate that source water assessment work within the Cataraqui area will be administered by the Cataraqui Source Protection Authority. The Clean Water Act, 2006, requires municipalities and other bodies to share records, maps, information, and other relevant documents with the Cataraqui SPC. Private information obtained during the process will be kept in accordance with provincial legislation regarding freedom of information and protection of privacy.

Pending the completion of the necessary assessment work, the Cataraqui SPC will encourage early actions and voluntary programs by municipalities, property owners, and other stakeholders to reduce or eliminate drinking water threats within the Cataraqui area. After the Cataraqui Assessment Report has been approved, consideration may be given to the use of interim risk management plans under Section 56 of the Clean Water Act, 2006 to address significant drinking water threats in wellhead protection areas or intake protection zones.

Part of the Assessment Report will identify recommendations for additional research to help meet long-term data, knowledge, monitoring and reporting requirements. The work necessary to meet these needs could be a cooperative effort between Cataraqui Region Conservation Authority staff and researchers in the community (possibly at local post-secondary institutions such as Queens University, Royal Military College Kingston, and St. Lawrence College) and consultants.

3.1 Municipal Residential Drinking Water Systems

The source water for all municipal residential drinking water systems must be considered in the Cataraqui Assessment Report. The scope of work must include:

- Existing systems that will remain in operation for the next five years. We are not aware of intentions by any local municipalities to close any of the existing systems over the next five years.
- New "planned" systems. "Planned" systems are defined by Ontario Regulation 286/07 as those that have been approved through an Environmental Assessment (EA), or that have been identified as the preferred alterative in a completed EA. We are not aware of any planned systems that meet this definition, although we are aware that municipalities are considering additional systems for the future, along with upgrades to existing ones.

Research has commenced on ten of the twelve existing municipal residential systems; we will consider the need for further research about these systems as study findings and provincial technical standards are released during 2008. There is a need to consider additional studies related to the other two systems, as follows:

Proposed Cana Subdivision Wellhead Protection Area Study

The Cana Subdivision is a small residential neighbourhood in the northeastern part of the City of Kingston near Highway 15. The Subdivision is serviced by water and sewage treatment plants, both of which are owned by the City of Kingston and operated by Utilities Kingston. This groundwater system was the subject of a preliminary wellhead protection area report by Trow Associates Inc. as part of the Western Cataraqui Region Groundwater Study (Trow Associates Inc. for CRCA, 2007). The consultant's preliminary work used a basic method to delineate a protection area around the well. CRCA staff have recommended that a more detailed modelling method be employed in a Phase '2' study by a geoscientist, and also that vulnerability scoring be assigned to the wellhead protection area. This further work will be needed to meet the anticipated provincial technical standards.

Proposed Miller Manor Wellhead Protection Area Study

The Miller Manor in the village of Mallorytown is classified by the Ontario Ministry of the Environment as having a municipal residential drinking water system due to its size and public ownership. Mallorytown is located in the Township of Front of Yonge near Brockville. The Miller Manor is a 17 unit retirement home that is owned and operated by the United Counties of Leeds and Grenville. Drinking water for the Manor is obtained through a well on the property. We anticipate that the source for this well could be assessed through a small-scale wellhead protection area study by a geoscientist. This work will be needed to meet the anticipated provincial technical standards.

3.2 Other Drinking Water Systems

Sections 8 and 10 of the Clean Water Act, 2006 allow municipalities and the provincial Minister of the Environment, respectively, to 'elevate' the source water for 'other' drinking water systems into the scope of work in the proposed Terms of Reference. Within the parameters of Ontario Regulation 286/07, these other systems include: (a) clusters of six or more private intakes and wells, and (b) those that supply public and private facilities such as schools, community centres, health care facilities, children's camps, and trailer parks. Users of these systems are generally protected by the testing and treatment requirements of Ontario's Safe Drinking Water Act, 2002 and other laws and regulations such as the Ontario Water Resources Act.

Without an 'elevation', however, the source water that supplies these other systems may not be directly considered by Ontario's source protection initiative. At this time, there are no municipal council resolutions to elevate any of these other systems for inclusion within the Cataraqui source protection planning process. The Ministry of the Environment has recently cautioned municipalities against elevating other systems until further direction is released by the province on the implications of such elevations. The findings that are forthcoming from ongoing technical studies may also help to determine whether or not a system should be elevated.

Nevertheless, it remains open to municipalities within the Cataraqui area to elevate some of these other systems in order to address known drinking water problems being experienced by their inhabitants at specific locations, or to protect local source water in order to prevent the costs associated with extending municipal servicing into the affected location(s) at a future date. If one or more 'elevations' occur once the Province releases further direction, then these ToR can be amended accordingly.

3.3 Groundwater Vulnerability

The previous groundwater studies covering the Area and draft work to-date on the Cataraqui Groundwater Vulnerability Analysis Report (forthcoming in 2008 by Dillon Consulting Ltd.) suggest that there are highly vulnerable aquifers across a large portion of the Cataraqui area; in these aquifers the groundwater is highly susceptible to contamination from activities on the surface. Similarly and as was previously mentioned, the Western Cataraqui Region Groundwater Study (Trow Associates Inc. for CRCA, 2007, volume 1, page 29) found that about 40 per cent of private wells that were sampled by the author in the western portion of the Cataraqui area were contaminated by bacteria (volume 1, page 29).

The draft Technical Rules for the Assessment Report (Ontario Ministry of the Environment, June 2008) suggest that the water quality risk assessment is to be completed in all highly vulnerable aquifers. The Committee and CRCA staff will work with the Ministry to refine the methods through which the assessment will be completed in the Cataraqui Source Protection Area. In addition, there may be an opportunity for additional 'pilot' research on this issue in the Cataraqui area, working in conjunction with the academic community, municipalities, and public health units.

4.0 Frequently Asked Questions about Source Protection Planning

The parameters for source protection planning in Ontario are outlined in the Clean Water Act, 2006. These general requirements will be supplemented by more specific direction in the forthcoming Source Protection Plan Regulation by the Ontario Ministry of the Environment, which is likely to be released during 2009.

The policies in the Cataraqui Source Protection Plan will address the drinking water threats and issues within vulnerable areas that were included in the Assessment Report. The priority and specific measures for addressing drinking water threats will be based on the outcome of a risk assessment which is expected to identify "significant", "moderate", "low", and "negligible" threats. Many of the measures in the Cataraqui Source Protection Plan are expected to reinforce and/or refine existing actions by government, organizations, and individuals. Existing agreements and programs related to the Great Lakes Basin will be considered. If the Minister of the Environment sets targets for source water in Lake Ontario and/or the St. Lawrence River, then the Plan will also include policies related to achieving those targets. Policies will be developed in collaboration with the adjacent source protection regions, as discussed in Appendix 'E'. We expect that the Plan will also recommend how each policy is to be implemented, and that it will identify potential sources of funding for source protection activities.

The sections below address some frequently asked questions about source protection planning:

What types of local drinking water threats will be identified and assessed within the Cataraqui Source Protection Area?

A drinking water threat refers to an activity or condition that adversely affects, or has the potential to adversely affect, the quality or quantity of water that is or may be used as a source of drinking water. It is anticipated that the Ontario government will release technical standards prescribing various types of threats to be considered within vulnerable areas under the source protection planning process. We anticipate that there will be consideration of:

- *Corridor threats*, such as spills from a railway;
- Point source threats at a specific location, such as leachate from a waste disposal site; and

- Non-point source threats on the broader landscape, such as the runoff of oils and greases from paved surfaces (such as parking lots) within a subwatershed.

The process will include consideration for existing threats (where a land use or activity either occurred in the past or is ongoing), and future ones (where a land use or activity is not currently ongoing, but is permitted under the municipal official plan and zoning by-law).

Which types of policies must be included within a source protection plan?

The Clean Water Act, 2006 requires that each source protection plan include policies regarding:

1. Actions to address drinking water threats, to ensure that significant ones cease to be significant, and that low and moderate threats do not become significant, along with monitoring of drinking water threats;

2. Actions to assist in achieving Great Lakes targets that may be set for the Cataraqui area by the Minister of the Environment under Section 85 of the Act, along with monitoring of the effectiveness of those actions; and

3. The monitoring of drinking water issues (exceedances of quality standards for source water) that are identified in the Assessment Report, as required.

Which tools are available to respond to drinking water threats and issues?

Communities across Ontario will address drinking water threats and issues using a variety of policy tools. They are expected to range from 'soft' tools (such as the posting of information about the proper disposal of hazardous waste) to more stringent ones (such as zoning to prevent the construction of an industrial facility in a vulnerable area). The Cataraqui SPC will work with local communities to develop practical solutions to source water problems. There will be recognition of ongoing risk management measures, the refinement of existing policies and programs, and consideration for a full suite of measures. Some of the tools that are available for use are listed below (in alphabetical order, with reference to relevant sections in the Clean Water Act, 2006):

Awareness and education programs (Section 22);
Provincial instruments (e.g. Permit to Take Water) (Section 43 and 44);
Land purchases by conservation authority or municipality (Section 92);
Land expropriations by a conservation authority or municipality (Section 92);
Municipal activities (e.g. road maintenance practices) (Sections 38 and 39);
Municipal infrastructure (e.g. stormwater management facilities) (Sections 38 and 39);
Municipal official plan policies and zoning by-law provisions (Sections 39 through 42);
Municipal risk management by-laws (Section 58);
Prohibition of activities (Section 57);
Restriction of land uses (Section 59);
Sewage system maintenance inspections (Section 112);
Voluntary stewardship projects (Section 22); and
Voluntary risk management measures (Section 22).

The Source Protection Plan Regulation (expected in 2009) may place parameters around the extent to which each of the tools listed above can be applied.

How will the source protection policies be developed?

A conceptual framework for the planning effort is shown in Appendix 'F-1'. Policy development will begin with a review of the risks to source water, as well as the legislation, policies, programs and procedures that already apply in the Cataraqui Source Protection Area. Protection measures from other jurisdictions will also be considered, along with the policy 'tools' that are available. Initial policy writing will be undertaken by the Cataraqui Region Conservation Authority (CRCA) staff and consultants. There will be ongoing dialogue with the adjacent source protection committees. If a municipality wishes to administer planning work for their drinking water system, then it will prepare draft policies and submit them to the Committee (see Appendix 'F-2').

Working groups established by the Cataraqui SPC will review draft policies. It is currently proposed that there would be at least two working groups: one to address surface water sources and another to address groundwater sources (see Appendix 'F-3'). Additional working groups may be established to address particular topics or sectors where necessary. For example, it may be appropriate for a working group to focus on questions pertaining to implementation, such as responsibility, timelines, and funding sources. A working group may be created as we move forward at the planning stage to review the impacts of source protection plan policies on agricultural (and potentially other) property owners within vulnerable areas.

The working groups will be composed of SPC members and others from public agencies and the community. Each draft policy will be carefully evaluated using a set of criteria that will be developed by the Committee in accordance with provincial guidelines. Local events such as 'roundtables' will be held to gather input prior to the publication of a draft Cataraqui Source Protection Plan.

The Cataraqui SPC will then review draft policies that are proposed by the working groups; we will make use of the policy evaluation criteria during this review. We will strive to include policies in the Cataraqui Source Protection Plan that are appropriate, effective, and economical for local communities. The Committee will set priorities for policy implementation that will result in significant drinking water threats being addressed first. The Source Protection Plan will include policy and by-law examples for municipal consideration such that local municipalities are able to incorporate consistent language and protection for vulnerable areas. It will provide details about how the policies are to be implemented (i.e. water quality and quantity targets, area of interest, timing, responsibility) and the potential source(s) of funding to complete the work.

Our intent is for the planning process to be open and consultative. There will be extensive opportunities for municipalities, community organizations, businesses, and residents to comment on the draft policies. Upon review of those comments, the Committee will submit a proposed Source Protection Plan to the Cataraqui SPA, who will seek further comments from the community. The Ontario Minister of the Environment is responsible for final approval of the Plan.

When will the source protection plan be prepared?

The review of existing policies and programs is proposed to commence in 2009. Formal policy development would then begin in 2010 so that a proposed Plan could be submitted to the Minister during 2012 (see Appendix 'F-4'). The due date for submission of the Cataraqui Source Protection Plan is August 20, 2012.

How much will it cost to complete the Assessment Report and then prepare a Source Protection Plan?

The costs associated with preparing an assessment report and a source protection plan are being paid by the Ontario government. The total cost of the anticipated work in the Cataraqui Source Protection Area, including eight technical studies, the development of plan policies, and consultation, is up to about $5.7

Million. Draft budget estimates for the upcoming April to March fiscal years (2009/10 through 2012/13) are included in Appendix 'F-5'. Additional financial details related to past, present, and future fiscal years are shown in Appendix 'G'. The actual amount of funding that is available in each fiscal year for drinking water source protection will be determined by the Ontario government.

What financial assistance will be made available for property owners?

The Clean Water Act, 2006 does not allow compensation to be paid to affected landowners. However, it has entrenched in law a financial assistance program called the Ontario Drinking Water Stewardship Program. This program currently has funding until 2011 to provide grants to assist private property owners in undertaking 'early actions' to address risks in very close proximity to municipal/residential intakes and supply wells in advance of approved source protection plans. The Cataraqui Region Conservation Authority is administering the program in the local area. More information about the program is available from the Ontario Ministry of the Environment website at:

www.ene.gov.on.ca/en/water/cleanwater/index.php.

5.0 Conclusion

The preparation of Terms of Reference for the Cataraqui Source Protection Area offers a collective opportunity for local communities to consider their drinking water source protection needs, priorities, and long-term objectives. The Cataraqui Source Protection Committee intends to maximize the local benefits of the current provincial initiative.

For More Information

We invite you to visit the following Internet websites for more information about drinking water source protection:

Ontario Ministry of the Environment – Drinking Water Portal
www.ontario.ca/ONT/portal51/drinkingwater

Ontario Ministry of the Environment – Clean Water Act
www.ene.gov.on.ca/en/water/cleanwater/index.php.

Conservation Ontario
www.conservationontario.ca

Cataraqui Source Protection Committee
www.cataraquiregion.on.ca

Glossary

[Note: the abridged definitions in this glossary have been prepared to assist readers of this Terms of Reference document. For additional definitions, please refer to provincial legislation, regulations, and technical standards].

Assessment report means a technical document that is prepared by a source protection committee under Section 15 of the Clean Water Act, 2006 (and a forthcoming regulation) to record its knowledge of a source protection area, and to rank *risks* to *drinking water* within that area. Each report is approved by the Ontario Ministry of the Environment.

Corridor threat means a drinking water threat that has the potential to occur along a linear feature such as a pipeline, railway, sewer line, highway, shipping channel, etc.

Drinking water means (a) water intended for human consumption or (b) water that is required by an Act, regulation, order, municipal by-law or other document issued under the authority of an Act, (i) to be potable, or (ii) to meet or exceed the requirements of the prescribed drinking water quality standards.

Drinking water system means a system of works, excluding plumbing, that is established for the purpose of providing users of the system with *drinking water* and that includes, (a) any thing used for the collection, production, treatment, storage, supply or distribution of water, (b) any thing related to the management of residue from the treatment process or the management of the discharge of a substance into the natural environment from the treatment system, and (c) a well or intake that serves as the source or entry point of raw water supply for the system.

Drinking water threat means an activity or condition that adversely affects or has the potential to adversely affect the quality or quantity of any water that is or may be used as a source of *drinking water*.

Highly vulnerable aquifer (HVA) means an area where (a) water is conveyed through the ground and (b) pollutants on the surface could readily enter the groundwater and contaminate it.

Intake protection zone (IPZ) means the area of land and water that contributes *source water* to a *drinking water system* intake within a specified distance, period of flow time (for example, two hours), and/or watershed area.

Risk means the likelihood of a drinking water threat (a) rendering a drinking water source impaired, unusable or unsustainable, or (b) compromising the effectiveness of a drinking water treatment process, resulting in the potential for adverse human health effects.

Significant groundwater recharge area (SGRA) means an area in which (a) there is a high volume of water moving from the surface into the ground and (b) groundwater serves either as *source water* or the water that supplies a coldwater ecosystem such as a brook trout stream.

Source protection means a program of education, stewardship, planning, infrastructure, and regulation activities that together serve to help prevent the contamination or overuse of *source water*.

Source protection area means those lands and waters that have been defined under Ontario Regulation 284/07 as the "study area" for an *assessment report* and a *source protection plan* under the Clean Water Act, 2006.

Source protection authority means a conservation authority or other person or body that is required to exercise powers and duties under the Clean Water Act, 2006. The Cataraqui Source Protection Authority is composed of the 17 members of the Cataraqui Region Conservation Authority plus one additional member from the Township of Frontenac Islands.

Source protection committee means a group of individuals who have been appointed under the Clean Water Act, 2006 by a *source protection authority* to coordinate *source protection* activities for a *source protection area*. The Cataraqui Source Protection Committee is composed of a provincially appointed Chair (Mr. John C. Williamson of Inverary), plus 15 other members who were appointed by the Cataraqui Source Protection Authority from the community. There are five members who represent municipalities, five who represent economic sectors such as agriculture, industry, and tourism, and five who represent other interests such as environmental organizations and the general public. The Source Protection Committee also includes three non-voting representatives from: (1) the Cataraqui Source Protection Authority, (2) Kingston Frontenac Lennox & Addington Public Health and the Leeds, Grenville & Lanark District Health Unit, and (3) the Ontario Ministry of the Environment.

Source protection plan means a document that is prepared by a *source protection committee* under Section 22 of the Clean Water Act, 2006 (and a forthcoming regulation) to direct *source protection* activities in a *source protection area*. Each plan is approved by the Ontario Ministry of the Environment.

Source protection region means two or more *source protection areas* that have been grouped together under Ontario Regulation 284/07.

Source water means untreated water that is found in groundwater aquifers and surface water lakes and rivers that is used to supply a *drinking water system*.

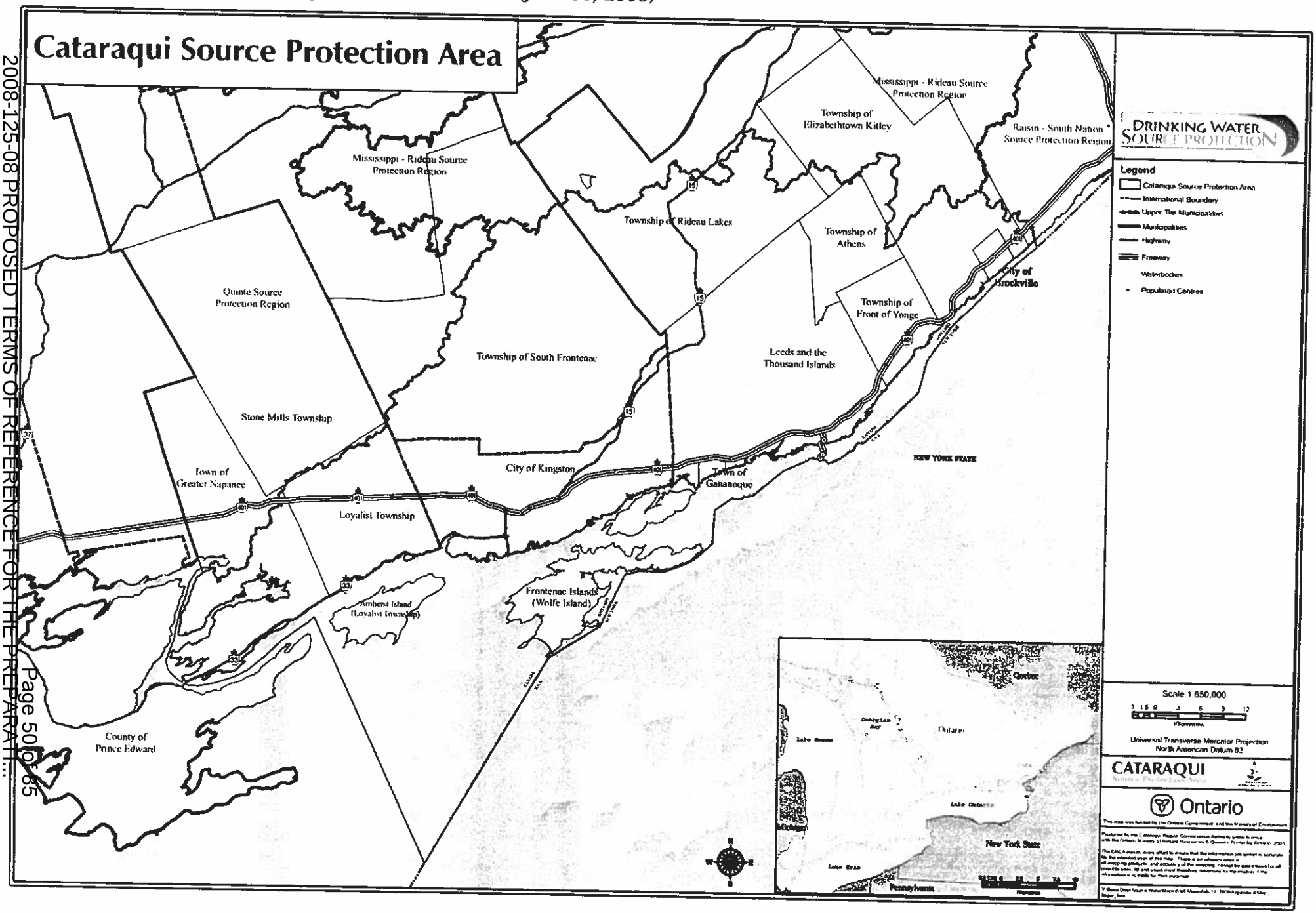
Terms of Reference means the work plan and budget for development of the source protection plan that is subject to public comment and approval by the Ontario Minster of the Environment.

Vulnerable area means (a) a *significant groundwater recharge area*, (b) a *highly vulnerable aquifer*, (c) a *surface water intake protection zone*, or (d) a *wellhead protection area*.

Watershed means the area of land that contributes water to a lake, river, or stream.

Wellhead protection area means the surface and subsurface area surrounding a well that supplies a *drinking water system*, through which contaminants are reasonably likely to move so as to eventually reach the well.

List of Appendices


Cataraqui Source Protection Area
Mississippi - Rideau Source Protection Region
Township of Elizabethtown Kitley
Raisin - South Nation Source Protection Region
Township of Rideau Lakes
Township of Athens
City of Brockville
Township of Front of Yonge
Quinte Source Protection Region
Township of South Frontenac
Leeds and the Thousand Islands
Stone Mills Township
Town of Greater Napanee
City of Kingston
Town of Gananoque
NEW YORK STATE
Loyalist Township
Amherst Island (Loyalist Township)
Frontenac Islands (Wolfe Island)
County of Prince Edward
DRINKING WATER SOURCE PROTECTION
Legend
Cataraqui Source Protection Area
International Boundary
Upper Tier Municipalities
Municipalities
Highway
Freeway
Waterbodies
Populated Centres
Scale 1:650,000
Universal Transverse Mercator Projection
North American Datum 83
CATARAQUI
Ontario
Quebec
Ontario
Lake Huron
Lake Ontario
Michigan
New York State
Pennsylvania

Municipalities in the Cataraqui Source Protection Area

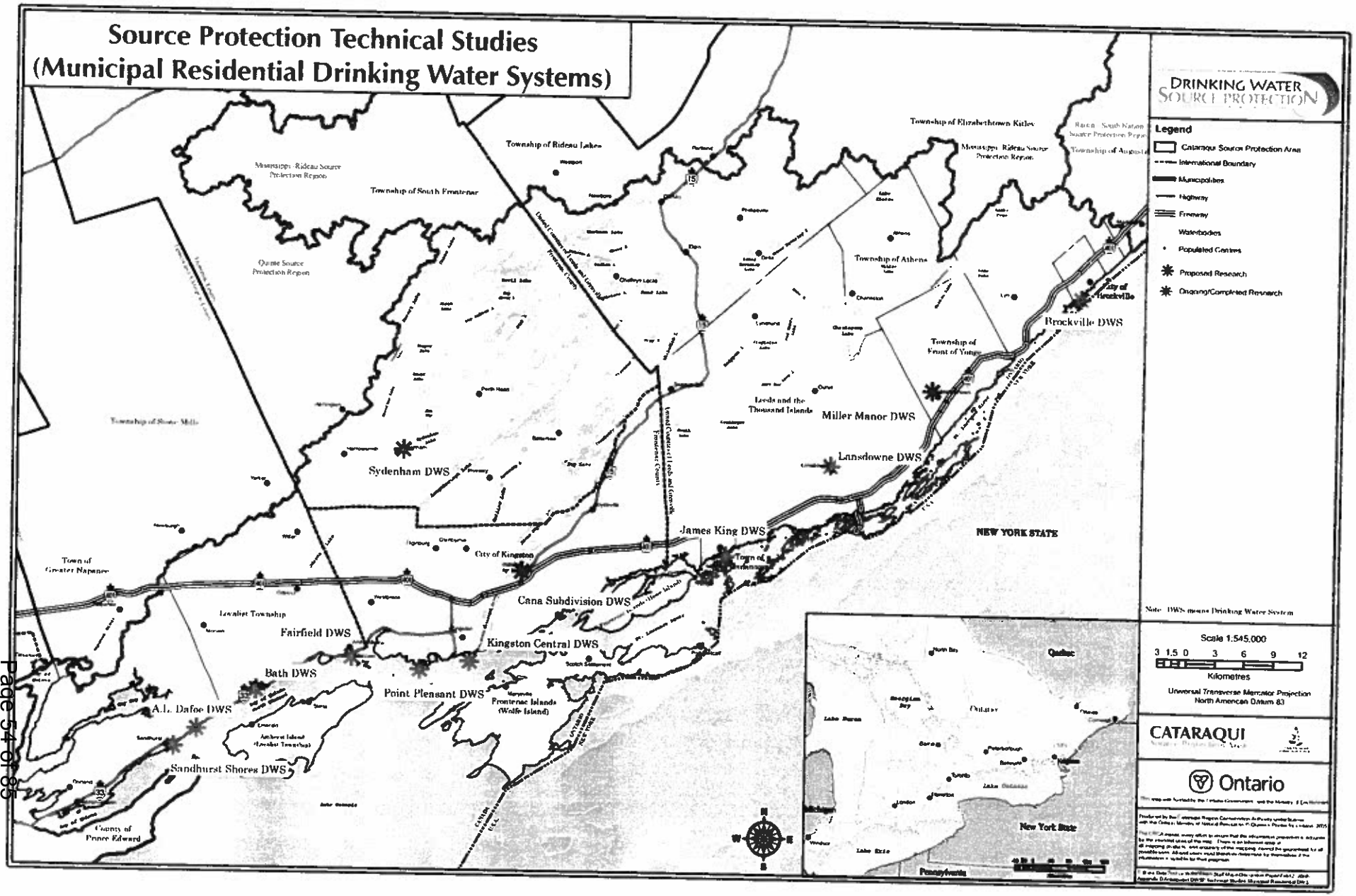
Municipality
Township of Athens
City of Brockville
Township of Elizabethtown-Kitley
Township of Front of Yonge
Township of Frontenac Islands
Town of Gananoque
Town of Greater Napanee
City of Kingston
Township of Leeds and the Thousand Islands
Loyalist Township
Township of Rideau Lakes
Township of South Frontenac

Drinking Water Systems Eligible for Assessment and Planning Work: Cataraqui Source Protection Area[1]

System Number	Drinking Water System Name	Owner	Operating Authority	Source Type
220002226	A.L. Dafoe Water Treatment Plant	Town of Greater Napanee	Greater Napanee Utilities	Surface water
220002217	Bath Water Treatment Plant	Loyalist Township	Loyalist Township	Surface water
220001263	Brockville Water Treatment Plant	City of Brockville	City of Brockville	Surface water
220006053	Cana Well Supply	City of Kingston	Utilities Kingston	Groundwater
220009229	Fairfield Water Treatment Plant	Loyalist Township	Loyalist Township	Surface water
220001254	James W. King Water Treatment Plant	Town of Gananoque	Town of Gananoque	Surface water
220001860	Kingston Central Water Treatment Plant	City of Kingston	Utilities Kingston	Surface water
210001022	Lansdowne Well Supply	Township of Leeds and the Thousand Islands	Ontario Clean Water Agency	Groundwater
260006958	Miller Manor Apartments Well Supply	United Counties of Leeds and Grenville	United Counties of Leeds and Grenville	Groundwater
220001851	Point Pleasant Water Treatment Plant	City of Kingston	Utilities Kingston	Surface water

System Number	Drinking Water System Name	Owner	Operating Authority	Source Type
220003877	Sandhurst Shores Water Treatment Plant	Town of Greater Napanee	Greater Napanee Utilities	Surface water
260069290	Sydenham Water Treatment Plant	Township of South Frontenac	Utilities Kingston	Surface water

1. These drinking water systems are currently eligible for source protection assessment and planning work under Section 15(2)(e) of the Ontario *Clean Water Act, 2006*.


Source Protection Technical Studies
(Municipal Residential Drinking Water Systems)
DRINKING WATER SOURCE PROTECTION
Legend
Cataraqui Source Protection Area
International Boundary
Municipalities
Highway
Freeway
Waterbodies
Populated Centres
Proposed Research
Ongoing/Completed Research
Note: DWS means Drinking Water System
Scale 1:545,000
3 1.5 0 3 6 9 12
Kilometres
Universal Transverse Mercator Projection
North American Datum 83
CATARAQUI
Ontario
Township of Rideau Lakes
Township of South Frontenac
Township of Elizabethtown Kitley
Township of Athens
Township of Front of Yonge
Leeds and the Thousand Islands
Township of Rideau Lakes
Mississippi - Rideau Source Protection Region
Quinte Source Protection Region
Rideau - South Nation Source Protection Region
Township of Augusta
City of Brockville
Brockville DWS
Miller Manor DWS
Lansdowne DWS
Sydenham DWS
James King DWS
NEW YORK STATE
City of Kingston
Town of Greater Napanee
Loyalist Township
Cana Subdivision DWS
Fairfield DWS
Kingston Central DWS
Bath DWS
Point Pleasant DWS
A.L. Dafoe DWS
Frontenac Islands (Wolfe Island)
Amherst Island (Loyalist Township)
Sandhurst Shores DWS
County of Prince Edward
Quebec
Ontario
New York State
Pennsylvania
Lake Huron
Lake Erie
Lake Ontario

Summary of Assessment Report Technical Studies[1]

The following table presents each type of study along with the purpose. The reader may wish to refer to the Glossary for definitions of some of the terms used below.

Study	Purpose
Watershed Characterization	• Describe the natural features, land use, and settlement of the twelve major watersheds, along with the sources of drinking water, water use, water quality, and known water-related problems in Cataraqui Source Protection Area, mainly by using existing information.
Water Budget	• Answer four questions: – Where is the water? – How does the water move? – What and where are the stresses on the water? – What are the trends? • Conduct more detailed research about specific sources of drinking water as warranted
Groundwater Vulnerability Analysis	• Identify and delineate vulnerable areas called "wellhead protection areas" around eligible[2] supply wells. Assign scores for each area to signify its vulnerability and account for uncertainty. • Identify and delineate other vulnerable groundwater areas on the broader landscape called "highly vulnerable aquifers" and "significant groundwater recharge areas". Assign scores for each area to signify its vulnerability and account for uncertainty.
Surface Water Vulnerability Analysis	• Identify and delineate vulnerable areas called "intake protection zones" around eligible[2] intake pipes. • Assign scores for each intake and zone to signify its vulnerability and to account for uncertainty.
Threats Inventory and Issues Evaluation	• Identify and evaluate "issues" (i.e. documented water quality problems) that have impacted or may impact eligible drinking water sources. • Inventory "pathways" (such as a sewer pipe) along which contaminants could more easily travel to an eligible drinking water source. • Inventory existing and future drinking water "threats" in the vulnerable areas. Calculate a "hazard score" for each threat to prioritize them.
Water Quality Risk Assessment	• Rank drinking water threats for each parcel of land in a vulnerable area.
Water Quantity Risk Assessment	• Evaluate the longer-term sustainability of eligible[2] surface water intakes and well supplies in the context of the local watershed, as warranted.
Assessment Report	• Summarize all findings about vulnerable areas and risks to eligible[2] drinking water sources.

Notes:

1. Independent peer reviewers have and will be engaged to ensure the technical work is sound and consistent with Provincial requirements.
2. Eligible drinking water intakes and wells in the Cataraqui Source Protection Area are listed in Appendix 'C-1' to these Terms of Reference.

Matters Requiring Consultation with Neighbouring Source Protection Committees and American Agencies

As shown on the map in Appendix 'A', the Cataraqui Source Protection Area is bordered to the west by the Quinte Source Protection Region, to the north by the Mississippi-Rideau Source Protection Region, to the east by the Raisin – South Nation Source Protection Region, and to the south by New York State in the United States of America. At this time we are aware of the following matters that will necessitate consultation with other source protection committees (SPCs) and American agencies:

(1) Shared Municipalities

There is a need for a coordinated approach to communications, information management, technical assessment work, and source protection planning in municipalities that are shared between two or more source protection committees. This approach will build on an established record of open communication and sharing amongst the Eastern Ontario SPCs and conservation authority staff. Six of the twelve municipalities that have area within the Cataraqui also fall into one or more of the adjacent source protection regions. We will strive to coordinate our efforts across watershed boundaries where possible, recognizing that this will facilitate implementation activities by the municipalities.

(2) Information Management

The source protection committees in Eastern Ontario will need to understand how information related to drinking water source protection is being organized and stored by municipalities and source protection authorities who are undertaking assessment and planning work. They will also need to create protocols for sharing it with others in the community. Under the umbrella of legislation and regulations, there may be opportunities to develop shared local approaches to information management.

(3) Regional Groundwater Flow, Significant Recharge Areas, and Vulnerability Mapping

There will be a need to discuss both technical findings and policy recommendations related to groundwater with the neighbouring source protection committees. Groundwater resources in Eastern Ontario may flow between surface watersheds, such that the protection of one aquifer is of common interest to two or more source protection committees. For example, geologic formations in the Cataraqui may recharge groundwater aquifers that supply public and private wells in the Mississippi-Rideau.

Significant groundwater recharge areas are being identified as part of the assessment reports in each source protection area. These occur where there is a high volume of water moving from the surface into the ground at a given location, and the receiving aquifer discharges to a coldwater ecosystem and/or a municipal residential drinking water system. It will be helpful to compare mapping of these features across surface watershed boundaries, and then to either eliminate discrepancies or document a rationale for their existence.

Much of the groundwater in the Cataraqui is considered highly vulnerable to contamination from the surface, owing to the shallow overburden and fractures in the bedrock. There will be a need for the source protection committees in Eastern Ontario, which share this condition, to look at how such aquifers are delineated and protected. There may also be opportunities to share lessons learned with the other source protection committees that face this challenge elsewhere in Ontario.

(4a) Lake Ontario – St. Lawrence River Technical Studies and Agreements

The Cataraqui includes portions of the eastern end of Lake Ontario and the upper reaches of the St. Lawrence River. There is a need for the Cataraqui SPC to consult with the Quinte SPC (and others) about matters pertaining to the Lake, and the Raisin-South Nation SPC about matters pertaining to the River. Environmental agencies in New York State will be consulted with regard to our shared interest in Lake Ontario and the St. Lawrence River. This will allow for technical findings about surface water resources to be shared, and for discussions about how proposed source protection policies relate to Great Lakes agreements and targets.

(4b) Bay of Quinte Area of Concern (Quinte Source Protection Committee)

The eastern end of the Bay of Quinte Area of Concern includes area in both the Cataraqui and Quinte. There will be a need for the Committees to work together (and with the Trent Conservation Coalition SPC). Drinking water source protection research and planning may assist the communities around the Bay to achieve the objectives of the Remedial Action Plan for the Area of Concern.

(4c) A.L. Dafoe Drinking Water System (Quinte Source Protection Committee)

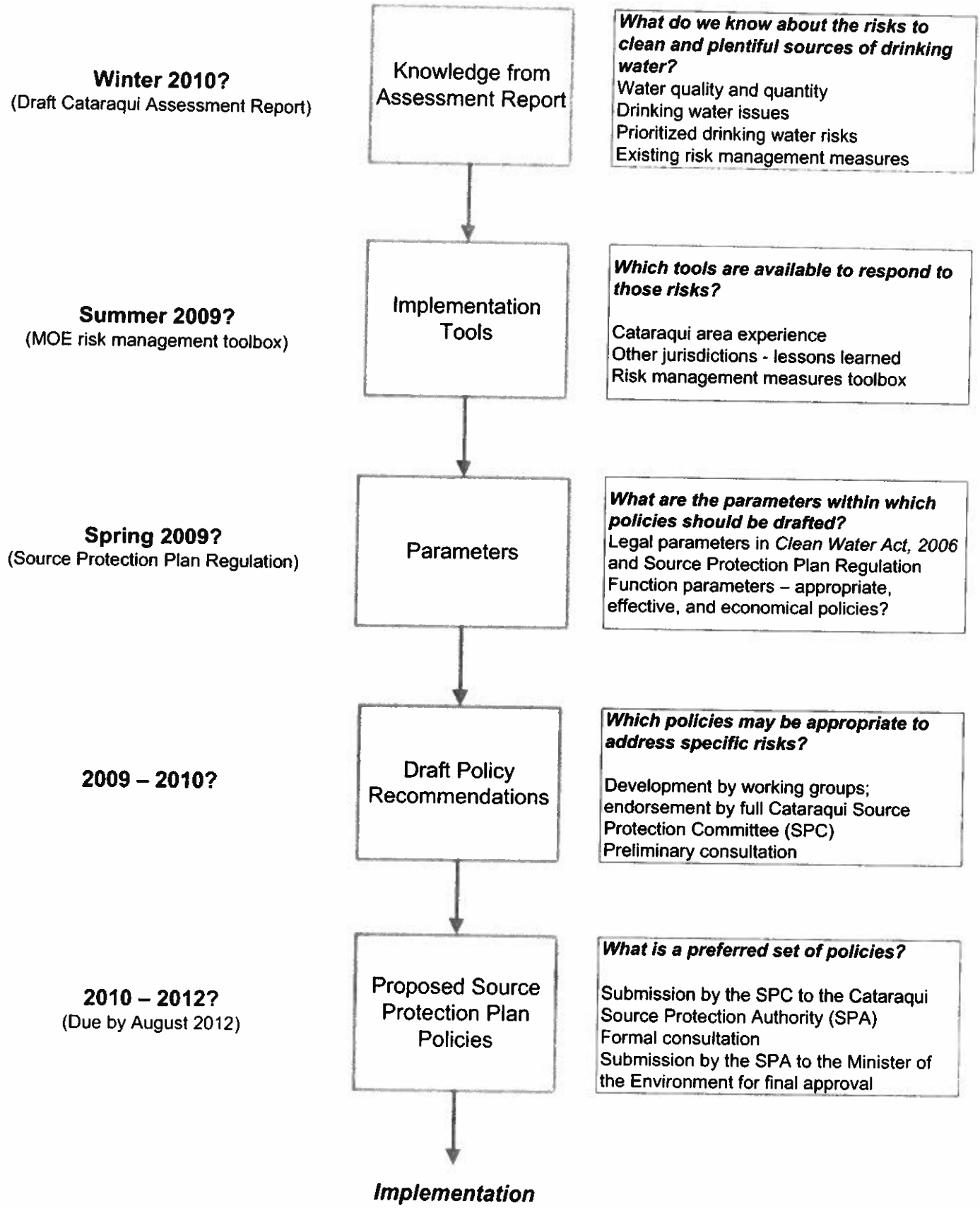
The source water for the A.L. Dafoe Drinking Water System in the Town of Greater Napanee is located along the Adolphus Reach of the Bay of Quinte, within the Cataraqui area. The distribution system for the plant serves about 8,500 residents of the adjacent Quinte region. This source water is presently being examined through the Eastern Lake Ontario – Upper St. Lawrence River Intake Protection Zone Study. The Town is involved through its participation on the Technical Advisory Group for the Study. There will be a need to discuss both technical findings and planning recommendations for this source with the Quinte SPC, perhaps as part of broader discussions about source protection in the Bay of Quinte.

(4d) Emergency Response on the St. Lawrence River (Raisin – South Nation Source Protection Committee)

The entire Cataraqui area ultimately drains to the St. Lawrence River downstream of Brockville, at the boundary of the Raisin – South Nation Source Protection Region. Acute contamination from spills poses a risk to downstream communities such as Maitland and Prescott. The issue of spills to source water is presently being considered through the Eastern Lake Ontario – Upper St. Lawrence River Intake Protection Zone Study. There will be a need to consider existing agreements, policies, and emergency response plans, and to discuss technical findings and planning recommendations with the Raisin – South Nation Source Protection Region. Agencies in New York State may also be interested in discussing this topic. The SPCs will transfer their knowledge about spills to municipalities and other authorities who are responsible for emergency response.

(5) Coordinated Approach to Plan / Policy Development

The Cataraqui Source Protection Committee will work with the adjacent SPCs (and others across Ontario) to share our draft source protection plan policies. For example, we will work together to assess the costs and benefits of various policy alternatives for addressing a risk. Sharing draft policies will help to collectively save time and effort and will likely result in clearer and more effective source protection plans. It will also assist municipalities that fall into two or more source protection areas by contributing to common policy approaches for risks that occur in more than one area.


Winter 2010?
(Draft Cataraqui Assessment Report)
Knowledge from Assessment Report
What do we know about the risks to clean and plentiful sources of drinking water?
Water quality and quantity
Drinking water issues
Prioritized drinking water risks
Existing risk management measures
Summer 2009?
(MOE risk management toolbox)
Implementation Tools
Which tools are available to respond to those risks?
Cataraqui area experience
Other jurisdictions - lessons learned
Risk management measures toolbox
Spring 2009?
(Source Protection Plan Regulation)
Parameters
What are the parameters within which policies should be drafted?
Legal parameters in Clean Water Act, 2006 and Source Protection Plan Regulation
Function parameters – appropriate, effective, and economical policies?
2009 – 2010?
Draft Policy Recommendations
Which policies may be appropriate to address specific risks?
Development by working groups; endorsement by full Cataraqui Source Protection Committee (SPC)
Preliminary consultation
2010 – 2012?
(Due by August 2012)
Proposed Source Protection Plan Policies
What is a preferred set of policies?
Submission by the SPC to the Cataraqui Source Protection Authority (SPA)
Formal consultation
Submission by the SPA to the Minister of the Environment for final approval
Implementation

Responsibility for Administering Assessment and Planning Work

The preparation of the Assessment Report and Source Protection Plan for the Cataraqui Source Protection Area will be coordinated by the Cataraqui Source Protection Committee (SPC) over the next five years. The SPC will be supported by other public bodies who will administer the preparation of draft materials for review by the Committee.

Ontario Regulation 287/07 requires that the Terms of Reference for drinking water source protection indicate which body will be responsible for administering each task. The Cataraqui Source Protection Authority normally performs related administrative functions, with the Cataraqui Region Conservation Authority as its agent. However, under Section 4 of the Regulation, municipalities also have the option of administering tasks that are related to a specific drinking water system.

The Cataraqui SPC consulted with the twelve municipalities in the Source Protection Area about the administration of tasks; the table below reflects their interest at this time for the Cataraqui Source Protection Authority to perform this function.

Document	**Task**	**Administering Body**[1]
Assessment Report	Remaining technical and risk assessment work	Cataraqui Source Protection Authority
	Public consultation on technical findings and risk assessment	Cataraqui Source Protection Authority
	Assessment Report compilation	Cataraqui Source Protection Authority
Source Protection Plan	Policy development	Cataraqui Source Protection Authority
	Public consultation on draft policies	Cataraqui Source Protection Authority
	Source Protection Plan compilation	Cataraqui Source Protection Authority

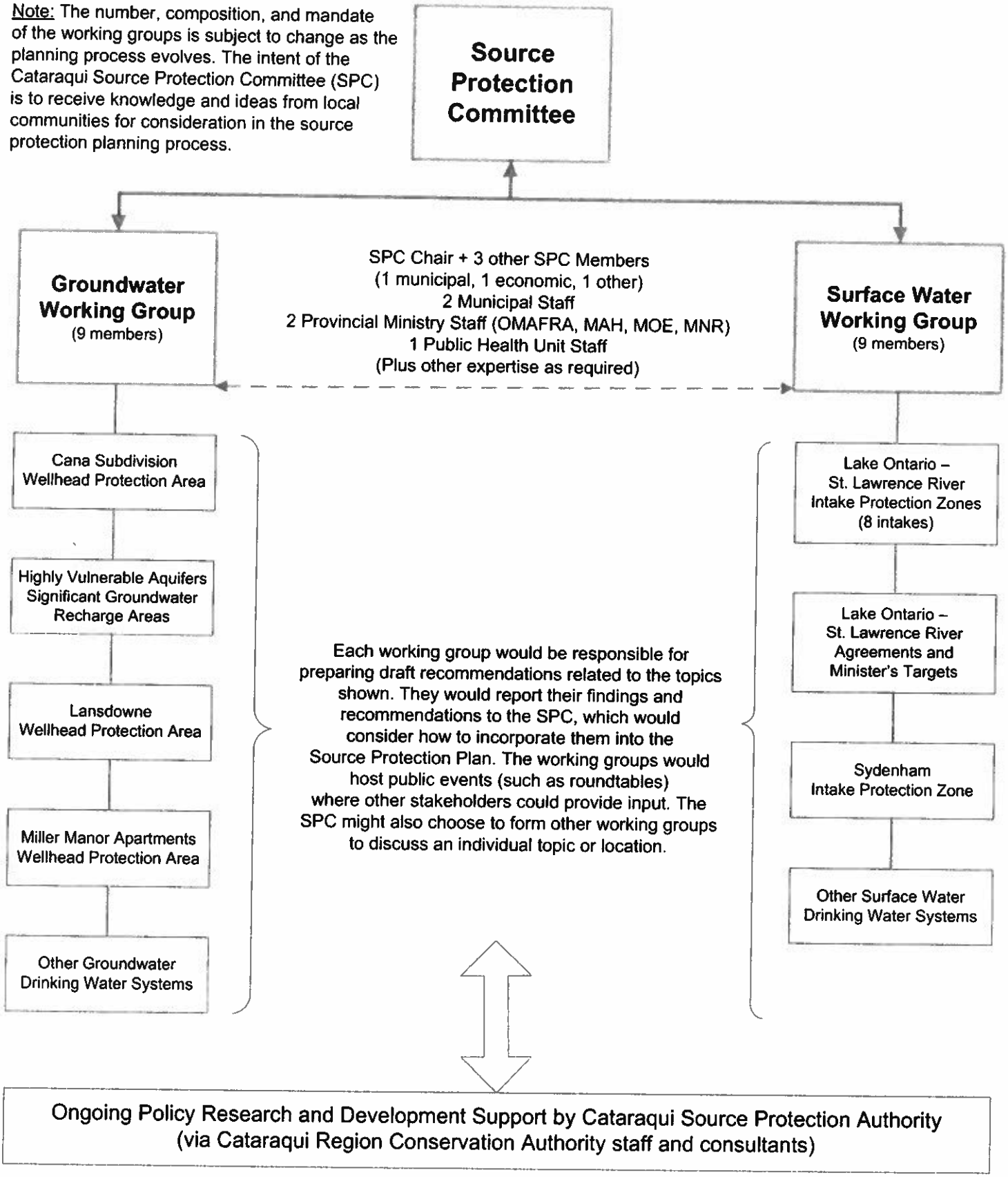
Notes:

1. The Township of Leeds and the Thousand Islands has indicated that it may elect to administer tasks at a future date.

Proposed Working Groups Structure
Cataraqui Source Protection Committee

Proposed June 30, 2008

Note: The number, composition, and mandate of the working groups is subject to change as the planning process evolves. The intent of the Cataraqui Source Protection Committee (SPC) is to receive knowledge and ideas from local communities for consideration in the source protection planning process.



DRINKING WATER SOURCE PROTECTION
ACT FOR CLEAN WATER
CATARAQUI Source Protection Area

Cataraqui Source Protection Area

Appendix F-4 to Proposed Cataraqui Terms of Reference (June 30, 2008)

Proposed Timeline for Assessment Report and Source Protection Plan[1,2]

	Assessment			Planning	
Task / Input	**2008**	**2009**	**2010**	**2011**	**2012**
Assessment Report Regulation and Director's Rules	Reg Rules				
Proposed Terms of Reference	DUE	approval			
Proposed Assessment Report			DUE approval		
Source Protection Regulation and Risk Management Toolbox		Reg Tools			
Review of Existing Legislation, Policies, and Programs					
Proposed Source Protection Plan					DUE approval
Implementation, Monitoring, Reporting, and Review/Updating					

Notes:
1. This timeline is based on the expected dates for release of regulations and standards by the Ontario government.
2. The due dates for each document are based on Ontario Regulation 285/07 (Time Limits)

Appendix F-5 to Proposed Cataraqui Terms of Reference (June 30, 2008)

Drinking Water Source Protection

Summary of Proposed 2009/10 - 2012/13 Budget Estimates[1,2]

Operating and Administrative Activities

Business Plan Section	2008/09	2009/10	2010/11	2011/12	2012/13	Total 2009/10 - 2012/13
	Business Plan / Estimate	*Estimate*	*Estimate*	*Estimate*	*Estimate*	*Estimate*
7.2.1.1 Coordinating and Supporting	$512,500	$461,000	$368,200	$383,500	$163,900	$1,376,600
7.2.1.2 Source Protection Committee	$49,250	$65,800	$77,200	$54,600	$28,000	$225,600
7.2.1.3 Formal Consultation, Communication, and Outreach	$23,500	$20,600	$22,100	$21,200	$25,600	$89,500
7.2.1.4 Information Management	$4,000	$4,100	$4,200	$4,300	$1,900	$14,500
7.2.1.5 Pilot Studies	$50,000	$0	$0	$0	$0	$0
7.2.1.6 Other Tasks for SPP	$0	$90,200	$100,900	$103,400	$47,600	$342,100
Subtotal	**$639,250**	**$641,700**	**$572,600**	**$567,000**	**$267,000**	**$2,048,300**

Technical Activities[3]

Business Plan Section	2008/09	2009/10	2010/11	2011/12	2012/13	Total
7.2.2.1 Water Budget and Water Quantity Risk Assessment	$195,850	$0	$0	$0	$0	$0
SUBTOTAL	**$195,850**	**$0**	**$0**	**$0**	**$0**	**$0**
7.2.2.2 Surface Water Vulnerability Analysis	$45,000	$0	$0	$0	$0	$0
7.2.2.3 Groundwater Vulnerability Analysis[4]	$195,000	$0	$0	$0	$0	$0
7.2.2.4 Threat Inventory and Issues Evaluation	$71,500	$0	$0	$0	$0	$0
7.2.2.5 Water Quality Risk Assessment	$30,000	$195,600	$86,900	$0	$0	$282,500
Subtotal[5]	**$341,500**	**$195,600**	**$86,900**	**$0**	**$0**	**$282,500**
TOTAL	**$1,176,600**	**$837,300**	**$659,500**	**$567,000**	**$267,000**	**$2,330,800**

Notes

1 The Cataraqui SPC intends to submit a draft Source Protection Plan to the MOE by August 20, 2012. Additional planning-related costs (e.g. final revisions, communication) will be incurred after that date.

2 Values in out years reflect potential inflation and salary & benefit adjustments.

3 Does not include assessment or planning work on drinking water systems that may be elevated into the scope of work under Sections 8 and 10 of the Ontario *Clean Water Act, 2006*.

4 Value for 2008/09 reflects approved Business Plan plus other requested technical study funds.

5 Additional MOE technical funds may be requested during 2008/09.

Appendix G to Proposed Cataraqui Terms of Reference (June 30, 2008): Detailed Work Plan Information

Work Plan to Complete the Assessment Report

By Source Protection Area/ Drinking Water System Name	Task	Assigned Lead(s)	Estimated Completion Date	Estimated Cost
Cataraqui Source Protection Area	Coordinating and supporting projects for the assessment report	Cataraqui Source Protection Authority	2010-Mar-31	$2,053,590.00
Cataraqui Source Protection Area	Undertaking communications initiatives for the assessment report	Cataraqui Source Protection Authority	2010-Mar-31	$59,669.80
Cataraqui Source Protection Area	Information management for the assessment report preparation	Cataraqui Source Protection Authority	2010-Mar-31	$82,351.18
Cataraqui Source Protection Area	Undertaking a watershed characterization	Cataraqui Source Protection Authority	2008-Mar-31	$26,225.48
Cataraqui Source Protection Area	Conducting a conceptual water budget	Cataraqui Source Protection Authority	2007-Mar-30	$155,596.14
Cataraqui Source Protection Area	Conducting a tier 1 water budget analysis and stress assessment	Cataraqui Source Protection Authority	2008-Jun-30	$160,726.00
Cataraqui Source Protection Area	Conducting a tier 2 water budget analysis and stress assessment	Cataraqui Source Protection Authority	2008-Dec-31	$195,850.00
Cataraqui Source Protection Area	Delineating and applying vulnerability scores to HVAs	Cataraqui Source Protection Authority	2010-Mar-31	$145,673.58
Cataraqui Source Protection Area	Identifying issues, inventorying threats and assessing hazards in HVAs	Cataraqui Source Protection Authority	2009-Jan-30	$20,000.00
Cataraqui Source Protection Area	Assessing risks in HVAs	Cataraqui Source Protection Authority	2009-Jul-31	$0.00
Cataraqui Source Protection Area	Applying vulnerability scores to SGRAs	Cataraqui Source Protection Authority	2010-Mar-31	$0.00
Cataraqui Source Protection Area	Identifying issues, inventorying threats and assessing hazards in SGRAs	Cataraqui Source Protection Authority	2009-Jan-30	$0.00
Cataraqui Source Protection Area	Assessing risk in SGRAs	Cataraqui Source Protection Authority	2009-Jul-31	$0.00
Cataraqui Source Protection Area	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Cataraqui Source Protection Authority	2009-Jan-30	$87,330.00
Cataraqui Source Protection Area	Assess risk in WHPAs or IPZs	Cataraqui Source Protection Authority	2009-Jul-31	$300,674.00

Cataraqui Source Protection Area	Consultation on the overall proposed assessment report	Cataraqui Source Protection Authority	2010-Mar-31	$20,500.00
Cataraqui Source Protection Area	Other Assessment Report Preparation Task: Operation of the Cataraqui Source Protection Committee.	Cataraqui Source Protection Authority	2010-Mar-31	$133,781.71
Cataraqui Source Protection Area	Other Assessment Report Preparation Task: Additional Tier 2 water quality risk assessment research on specific threats that may pose a high risk and for which there is a high level of uncertainty, concurrent with work on the Source Protection Plan.	Cataraqui Source Protection Authority	2011-Mar-31	$50,000.00
Cataraqui Source Protection Area	Other Assessment Report Preparation Task: Proposd pilot project: appropriate methods to delineate a wellhead protection area around the private wells in a small community.	Cataraqui Source Protection Authority	2009-Sep-30	$50,000.00
Municipal Residential Drinking Water Systems				
A.L. Dafoe Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2008-Aug-29	$32,656.00
Sydenham Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2008-Dec-31	$24,520.00
Sandhurst Shores Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2008-Aug-29	$32,656.00
Point Pleasant Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2008-Aug-29	$32,656.00
Miller Manor Apartments Well Supply	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2009-Jun-30	$65,000.00
Lansdowne Well Supply	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2008-Dec-31	$133,100.00
Kingston Central Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2008-Aug-29	$32,656.00
James W. King Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2008-Aug-29	$32,656.00
Fairfield Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2008-Aug-29	$32,656.00

Cana Well Supply	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2009-Jun-30	$65,000.00
Brockville Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2008-Aug-29	$32,656.00
Bath Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2008-Aug-29	$32,656.00
Sydenham Water Treatment Plant	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Cataraqui Source Protection Authority	2008-Oct-31	$83,070.00
Sydenham Water Treatment Plant	Assess risk in WHPAs or IPZs	Cataraqui Source Protection Authority	2008-Dec-31	$41,850.00

Work Plan to Complete the Source Protection Plan

By Source Protection Area/ Drinking Water System Name	Task	Assigned Lead(s)	Estimated Completion Date	Estimated Cost
Cataraqui Source Protection Area	Coordinating and supporting projects for the source protection plan (SPP)	Cataraqui Source Protection Authority	2012-Aug-20	$915,600.00
Cataraqui Source Protection Area	Undertaking communications initiatives for the source protection plan	Cataraqui Source Protection Authority	2012-Aug-20	$47,000.00
Cataraqui Source Protection Area	Information management for source protection plan preparation	Cataraqui Source Protection Authority	2012-Aug-20	$10,400.00
Cataraqui Source Protection Area	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Cataraqui Source Protection Authority	2012-Aug-20	$85,525.00
Cataraqui Source Protection Area	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Cataraqui Source Protection Authority	2012-Aug-20	$85,525.00
Cataraqui Source Protection Area	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Cataraqui Source Protection Authority	2012-Aug-20	$85,525.00
Cataraqui Source Protection Area	Establishing timelines for policy implementation	Cataraqui Source Protection Authority	2012-Aug-20	$85,525.00
Cataraqui Source Protection Area	Consultation on the overall proposed source protection plan	Cataraqui Source Protection Authority	2012-Aug-20	$21,900.00
Cataraqui Source Protection Area	Other Source Protection Plan Preparation Task: Operation of the Cataraqui Source Protection Committee.	Cataraqui Source Protection Authority	2012-Aug-20	$159,800.00

Detailed Information on Municipal Residential Drinking Water System(s)

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220002226	A.L. Dafoe Water Treatment Plant	Town of Greater Napanee	Greater Napanee Utilities	Surface Water	0
Number of Surface Water Intakes	**Comments**					
1	This drinking water system is supplied by source water in the Cataraqui Source Protection Area but serves residents in the adjacent Quinte Source Protection Region.					

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220002217	Bath Water Treatment Plant	Loyalist Township	Loyalist Township	Surface Water	0
Number of Surface Water Intakes	**Comments**					
1						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220001263	Brockville Water Treatment Plant	City of Brockville	City of Brockville	Surface Water	0
Number of Surface Water Intakes	**Comments**					
1	This water system provides treated water for the Elizabethtown-Kitley Distribution System (DWS # 220007777).					

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220006053	Cana Well Supply	City of Kingston	Utilities Kingston	Groundwater	1
Number of Surface Water Intakes	**Comments**					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220009229	Fairfield Water Treatment Plant	Loyalist Township	Loyalist Township	Surface Water	0
Number of Surface Water Intakes	**Comments**					
1						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220001254	James W. King Water Treatment Plant	Town of Gananoque	Town of Gananoque	Surface Water	0
Number of Surface Water Intakes	**Comments**					
1						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220001860	Kingston Central Water Treatment Plant	City of Kingston	Utilities Kiingston	Surface Water	0
Number of Surface Water Intakes	**Comments**					
1						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	210001022	Lansdowne Well Supply	Township of Leeds and the Thousand Islands	Ontario Clean Water Agency	Groundwater	2
Number of Surface Water Intakes	**Comments**					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	260006958	Miller Manor Apartments Well Supply	United Counties of Leeds and Grenville	United Counties of Leeds and Grenville	Groundwater	1
Number of Surface Water Intakes	**Comments**					
0	This 17 unit residential apartment building is located in Mallorytown, Ontario in the Township of Front of Yonge.					

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220001851	Point Pleasant Water Treatment Plant	City of Kingston	Utilities Kingston	Surface Water	0
Number of Surface Water Intakes	**Comments**					
1	The name of this facility was recently changed from: Kingston West Water Treatment Plant.					

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220003877	Sandhurst Shores Water Treatment Plant	Town of Greater Napanee	Greater Napanee Utilities	Surface Water	0
Number of Surface Water Intakes	**Comments**					
1						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	260069290	Sydenham Water Treatment Plant	Township of South Frontenac	Utilities Kingston	Surface Water	0
Number of Surface Water Intakes	**Comments**					
1	This system came into operation in summer 2006.					

Detailed Work Plan to Complete the Assessment Report

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Coordinating and supporting projects for the assessment report	Cataraqui Source Protection Authority	2005-Jan-03	2010-Mar-31
Comments		**Defined Geographic Area**		**Estimated Cost**
We anticipate that the Cataraqui Assessment Report will be due in January 2010. Two additional months may be required to transition into the source protection planning phase.				$2,053,590.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Undertaking communications initiatives for the assessment report	Cataraqui Source Protection Authority	2005-Jan-03	2010-Mar-31
Comments		**Defined Geographic Area**		**Estimated Cost**
				$59,669.80

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Information management for the assessment report preparation	Cataraqui Source Protection Authority	2005-Jan-03	2010-Mar-31
Comments		**Defined Geographic Area**		**Estimated Cost**
				$82,351.18

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Undertaking a watershed characterization	Cataraqui Source Protection Authority	2005-Jan-03	2008-Mar-31
Comments		**Defined Geographic Area**		**Estimated Cost**
				$26,225.48

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Conducting a conceptual water budget	Cataraqui Source Protection Authority	2005-Jan-03	2007-Mar-30
Comments		**Defined Geographic Area**		**Estimated Cost**
				$155,596.14

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Conducting a tier 1 water budget analysis and stress assessment	Cataraqui Source Protection Authority	2007-Apr-02	2008-Jun-30
Comments		**Defined Geographic Area**		**Estimated Cost**
				$160,726.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Conducting a tier 2 water budget analysis and stress assessment	Cataraqui Source Protection Authority	2008-Jun-02	2008-Dec-31
Comments		**Defined Geographic Area**		**Estimated Cost**
				$195,850.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Delineating and applying vulnerability scores to HVAs	Cataraqui Source Protection Authority	2007-Mar-01	2010-Mar-31
Comments		**Defined Geographic Area**		**Estimated Cost**
The work in 2009/10 would include further consideration of highly vulnerable aquifers based on fieldwork and Ontario Geologic Survey mapping of Karst topography.				$145,673.58

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Identifying issues, inventorying threats and assessing hazards in HVAs	Cataraqui Source Protection Authority	2007-Apr-02	2009-Jan-30
Comments		**Defined Geographic Area**		**Estimated Cost**
				$20,000.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Assessing risks in HVAs	Cataraqui Source Protection Authority	2008-Oct-01	2009-Jul-31
Comments		**Defined Geographic Area**		**Estimated Cost**
				$0.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Applying vulnerability scores to SGRAs	Cataraqui Source Protection Authority	2007-Mar-01	2010-Mar-31
Comments		**Defined Geographic Area**		**Estimated Cost**
				$0.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Identifying issues, inventorying threats and assessing hazards in SGRAs	Cataraqui Source Protection Authority	2007-Apr-02	2009-Jan-30
Comments		**Defined Geographic Area**		**Estimated Cost**
				$0.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Assessing risk in SGRAs	Cataraqui Source Protection Authority	2008-Oct-01	2009-Jul-31
Comments		**Defined Geographic Area**		**Estimated Cost**
				$0.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Cataraqui Source Protection Authority	2007-Apr-02	2009-Jan-30
Comments		**Defined Geographic Area**		**Estimated Cost**
				$87,330.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Assess risk in WHPAs or IPZs	Cataraqui Source Protection Authority	2007-Apr-02	2009-Jul-31
Comments		**Defined Geographic Area**		**Estimated Cost**
				$300,674.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Consultation on the overall proposed assessment report	Cataraqui Source Protection Authority	2008-Apr-01	2010-Mar-31
Comments		**Defined Geographic Area**		**Estimated Cost**
				$20,500.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Other Assessment Report Preparation Task: Operation of the Cataraqui Source Protection Committee.	Cataraqui Source Protection Authority	2007-Nov-15	2010-Mar-31
Comments		**Defined Geographic Area**		**Estimated Cost**
				$133,781.71

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Other Assessment Report Preparation Task:	Cataraqui Source Protection Authority	2010-Apr-01	2011-Mar-31
Comments		**Defined Geographic Area**		**Estimated Cost**
Additional Tier 2 water quality risk assessment research on specific threats that may pose a high risk and for which there is a high level of uncertainty, concurrent with work on the Source Protection Plan.				$50,000.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Other Assessment Report Preparation Task: Proposd pilot project: appropriate methods to delineate a wellhead protection area around the private wells in a small community.	Cataraqui Source Protection Authority	2008-Jun-02	2009-Sep-30
Comments		**Defined Geographic Area**		**Estimated Cost**
				$50,000.00

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
A.L. Dafoe Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2006-Mar-01	2008-Aug-29
Comments		**Defined Geographic Area**		**Estimated Cost**
				$32,656.00

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Sydenham Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2006-Mar-01	2008-Dec-31
Comments		**Defined Geographic Area**		**Estimated Cost**
				$24,520.00

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Sandhurst Shores Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2006-Mar-01	2008-Aug-29
Comments		**Defined Geographic Area**		**Estimated Cost**
				$32,656.00

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Point Pleasant Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2006-Mar-01	2008-Aug-29
Comments		**Defined Geographic Area**		**Estimated Cost**
				$32,656.00

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Miller Manor Apartments Well Supply	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2008-Jun-02	2009-Jun-30
Comments		**Defined Geographic Area**		**Estimated Cost**
				$65,000.00

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Lansdowne Well Supply	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2006-Mar-01	2008-Dec-31
Comments		**Defined Geographic Area**		**Estimated Cost**
				$133,100.00

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Kingston Central Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2006-Mar-01	2008-Aug-29
Comments		**Defined Geographic Area**		**Estimated Cost**
				$32,656.00

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
James W. King Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2006-Mar-01	2008-Aug-29
Comments		**Defined Geographic Area**		**Estimated Cost**
				$32,656.00

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Fairfield Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2006-Mar-01	2008-Aug-29
Comments		**Defined Geographic Area**		**Estimated Cost**
				$32,656.00

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cana Well Supply	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2008-Jun-02	2009-Jun-30
Comments		**Defined Geographic Area**		**Estimated Cost**
				$65,000.00

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Brockville Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2006-Mar-01	2008-Aug-29
Comments		**Defined Geographic Area**		**Estimated Cost**
				$32,656.00

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Bath Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Cataraqui Source Protection Authority	2006-Mar-01	2008-Aug-29
Comments		**Defined Geographic Area**		**Estimated Cost**
				$32,656.00

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Sydenham Water Treatment Plant	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Cataraqui Source Protection Authority	2006-Apr-03	2008-Oct-31
Comments		**Defined Geographic Area**		**Estimated Cost**
				$83,070.00

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Sydenham Water Treatment Plant	Assess risk in WHPAs or IPZs	Cataraqui Source Protection Authority	2006-Apr-03	2008-Dec-31
Comments		**Defined Geographic Area**		**Estimated Cost**
				$41,850.00

Detailed Work Plan to Complete the Source Protection Plan

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Coordinating and supporting projects for the source protection plan (SPP)	Cataraqui Source Protection Authority	2010-Apr-01	2012-Aug-20
Comments		**Defined Geographic Area**		**Estimated Cost**
				$915,600.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Undertaking communications initiatives for the source protection plan	Cataraqui Source Protection Authority	2010-Apr-01	2012-Aug-20
Comments		**Defined Geographic Area**		**Estimated Cost**
				$47,000.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Information management for source protection plan preparation	Cataraqui Source Protection Authority	2010-Apr-01	2012-Aug-20
Comments		**Defined Geographic Area**		**Estimated Cost**
				$10,400.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Cataraqui Source Protection Authority	2009-Apr-01	2012-Aug-20
Comments		**Defined Geographic Area**		**Estimated Cost**
				$85,525.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Cataraqui Source Protection Authority	2009-Apr-01	2012-Aug-20
Comments		**Defined Geographic Area**		**Estimated Cost**
				$85,525.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Cataraqui Source Protection Authority	2009-Apr-01	2012-Aug-20
Comments		**Defined Geographic Area**		**Estimated Cost**
				$85,525.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Establishing timelines for policy implementation	Cataraqui Source Protection Authority	2009-Apr-01	2012-Aug-20
Comments		**Defined Geographic Area**		**Estimated Cost**
				$85,525.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Consultation on the overall proposed source protection plan	Cataraqui Source Protection Authority	2010-Apr-01	2012-Aug-20
Comments		**Defined Geographic Area**		**Estimated Cost**
				$21,900.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Cataraqui Source Protection Area	Other Source Protection Plan Preparation Task: Operation of the Cataraqui Source Protection Committee.	Cataraqui Source Protection Authority	2010-Apr-01	2012-Aug-20
Comments		**Defined Geographic Area**		**Estimated Cost**
				$159,800.00

Summary of Financial Statistics

	Tasks Done by Source Protection Area or Drinking Water System	Estimated Costs for Tasks Under the Assessment Report	Estimated Costs for Tasks Under the Source Protection Plan	Subtotal
	Cataraqui Source Protection Area	$3,541,968	$1,496,800	$5,038,768
Municipal Residential Drinking Water Systems				
	A.L. Dafoe Water Treatment Plant	$32,656		$32,656
	Bath Water Treatment Plant	$32,656		$32,656
	Brockville Water Treatment Plant	$32,656		$32,656
	Cana Well Supply	$65,000		$65,000
	Fairfield Water Treatment Plant	$32,656		$32,656
	James W. King Water Treatment Plant	$32,656		$32,656
	Kingston Central Water Treatment Plant	$32,656		$32,656
	Lansdowne Well Supply	$133,100		$133,100
	Miller Manor Apartments Well Supply	$65,000		$65,000
	Point Pleasant Water Treatment Plant	$32,656		$32,656
	Sandhurst Shores Water Treatment Plant	$32,656		$32,656
	Sydenham Water Treatment Plant	$149,440		$149,440
Total Estimated Costs		**$4,215,758**	**$1,496,800**	**$5,712,558**

August 05, 2008

REPORT TO OPERATIONS COMMITTEE – AUGUST 11, 2008

2008-126-08
TENDER FOR CONTRACT 2008-10
BROCK STREET WATERMAIN
RECONSTRUCTION – PHASE 1

C.J. COSGROVE, P.ENG.
DIRECTOR OF OPERATIONS
P.E. RAABE, P.ENG.
MUNICIPAL ENGINEER

RECOMMENDED

THAT Council accept the tender from Cascone Contracting in the amount of Two Hundred and Thirty-Six Thousand, Five Hundred and Sixty Dollars ($236,560.00) excluding GST for Contract No. 2008-10 for the reconstruction of the Brock Street watermain from Perth Street to Daniel Street plus a Ten Thousand Dollar ($10,000.00) contingency; and

THAT the funds be allocated from account C4030-BROC; and

THAT $35,260.00 be allocated to the project from the Water Management Fund, account W4501-9110-9750, to provide the necessary funding to complete the project based on the low tender.

PURPOSE

The purpose of this report is to secure sufficient funding and to retain the services of a contractor to complete the work required on the Brock Street watermain. The replacement of the watermain will improve fire flow, water quality and structural integrity.

BACKGROUND

This project was approved in the 2008 Capital Budget where it was proposed to replace the existing 1892, 100 mm diameter cast iron watermain on Brock Street from Perth Street to William Street including some minor associated restoration work. However, during the design process it was determined that this original scope of work had to be expanded to include; the replacement of the roadbed structure, the replacement of the concrete curb and gutter, the replacement of the concrete sidewalk, and full replacement of the asphalt roadbed. This expanded work is necessary after determining the existing roadbed is constructed of sand. Current city design standards do not use sand as a roadbed material but rather a combination of granular B and A materials to achieve the necessary strength. Different roadbed material cross sections have differential settlement and expansion rates which cause uneven roads. In addition, the large number of services crossing the street would increase the use of different granular materials resulting in additional bumps. As a result, it was decided to replace the entire roadbed.

The numerous service crossings would also require the significant removal of the curb side sidewalk in a number of locations. Due to the number of cuts and the required

width of the cut, most of the sidewalk and curbing was being removed already. By removing what remains, the grade of the road could be improved thus improving drainage.

It was also discovered that the natural gas line on Brock Street is in close proximity to the watermain making it more difficult for the contractor to complete the work. As a result, the project limits were reduced to where it was estimated the proposed work could be completed within the approved budget. This meant the project would need to be broken into phases with the first phase being proposed to be completed in 2008 and the second phase being included in the 2009 Capital Budget. The project limits, as designed and tendered, extend from Perth Street to Daniel Street with the section from Daniel Street to William Street being proposed for the second phase.

ANALYSIS/OPTIONS

Tenders for the reconstruction of the Brock Street watermain were opened at City Hall on Tuesday, August 5, 2008 at 12:00 p.m.. The following is a summary of the results:

1. Cascone Contracting, Orillia $236,560.00
2. Knapps Paving and Landscaping $245,347.50*
3. Cruickshank Construction, Morrisburg..... No Bid
4. Tackaberry Construction, Athens ..... No Bid
5. Cornwall Construction, Cornwall ..... No Bid
6. Louis W. Bray ..... No Bid

*Corrected tender bid.

Engineer's Estimate ..... $ 201,300.00

In reviewing the tender documents, it became apparent that the unit price for asphalt and the prices associated with the watermain and its fittings were responsible for the difference. Asphalt prices are highly dependent on the price of oil which in the last few months has been at record highs. This is reflected in the unit price of $130 per tonne for asphalt paving for this project where the City's overlay work was awarded at a price of approximately $90 per tonne. Secondly the tender price for the watermain and its fittings are unusually high. This can only be attributed to working in close proximity with the gas line which runs along Brock Street.

Also, the higher than estimated prices can be partially attributed to the high demand for contractors and the fact that this project is on the smaller scale.

The contractor is tentatively scheduled to start in early September 2008 with a completion date of October 17, 2008. In anticipation of award of the contract, City

Public Work's staff is presently working on installing the temporary watermain back feed system to the residents affected by the work.

POLICY IMPLICATIONS

In accordance with the City's Purchasing By-law, the City normally accepts the lowest priced tender bid provided the contractor is deemed capable and competent to undertake the work.

FINANCIAL CONSIDERATIONS

This project was approved in the City's 2008 Capital Budget but does not have sufficient funds to complete the work as follows:

Project Cost

	DESCRIPTION	2008 CAPITAL BUDGET	ESTIMATED FINAL COST	DIFFERENCE
1.	CONSTRUCTION COST	$201,300.00	$236,560.00	($35,260.00)
2.	CONTINGENCY	$10,000.00	$10,000.00	$0.00
3.	ENGINEERING (DESIGN & ADMIN.)	$5,000.00	$5,000.00	$0.00
4.	WATERMAIN BACKFEED	$6,500.00	$6,500.00	$0.00
5.	MOE APPLICATION	$1,200.00	$1,200.00	$0.00
6.	TENDER ADVERTISING	$1,000.00	$589.60	$410.40
	TOTAL	$225,000.00	$260,260.00	($35,260.00)

Project Funding

2008 Capital Budget $225,000.00

In order to proceed with the project and have the work completed, an additional $35,260 will need to be allocated to project. It is proposed that the additional funding be allocated from the Water Management Fund.

CONCLUSION

It is recommended that Council accept the tender from Cascone Contracting for the reconstruction of the Brock Street watermain and that an additional $35,260 be allocated to the project from the Water Management Fund to provide the necessary funding.

C. J. Cosgrove, P. Eng.
Director of Operations

D. Cyr
Director of Finance

P. E. Raabe, P. Eng.
Municipal Engineer

B. Casselman
City Manager

AUGUST 5, 2008

REPORT TO OPERATIONS COMMITTEE – AUGUST 11, 2008

2008-127-08
WATER STREET PARK DEVELOPMENT
CAPITAL PROJECT –
2007 INVOICE CODING ERROR
FILE: F05-26/07

C. COSGROVE
DIRECTOR OF OPERATIONS
D. CYR
DIRECTOR OF FINANCE
L. WHITE
BUDGET OFFICER

RECOMMENDATION

THAT Council authorize the transfer of $16,291.04 from Fiscal Policy Reserve to the Water Street Park Development (Reynolds Park) Capital Project.

PURPOSE

To correct a posting error that occurred in December 2007 when a $16,291.04 invoice for the washing and re-lamping of streetlights was applied against a Capital account instead of an Operating account.

BACKGROUND

When an invoice is received by the Engineering Division for a tendered job, a Progress Certificate is prepared that contains the details of the job as well as the account number to which the job should be charged. In this instance, the account number was incorrect and the expense was charged to a Capital account instead of an Operating account.

While reviewing the expenses to date for the Reynolds Park project, the Municipal Engineer noted that the invoice for the washing and re-lamping of streetlights had been charged to this project in error. Mr. Raabe consulted Finance staff.

ANALYSIS

Finance staff has reviewed the documentation and concur with Mr. Raabe.

This expense was charged as a Capital expense instead of an Operating expense, which resulted in the 2007 year-end surplus for Operating being overstated by $16,291.04. This coding error also reduces the funds available for the Reynolds Park project.

The effects to the 2007 Consolidated Financial Statements are solely in the allocation of

- expenditures on the Statements of Financial Activities between Capital and Operating; and
- Municipal Position – Fund Balances on the Statement of Financial Position.

POLICY IMPLICATIONS

As 2007 year-end has been completed and the Operating surplus has been transferred to Fiscal Policy, Council's authorization is required to redistribute the funds correctly.

FINANCIAL CONSIDERATIONS

This transfer will return $16,291.04 to the Water Street Park Development Capital Project while in turn reducing the funds in the Fiscal Policy Reserve by the same amount.

CONCLUSIONS

The transfer of funds is necessary to ensure there are monies available to continue with Council's direction in regard to the Water Street Park Development Capital Project.

for L. White
Budget Officer

C. Cosgrove
Director of Operations

D. Cyr, Director of Finance

B. Casselman, City Manager