1. holistic water curriculum 2. action-based water learning 3. proactive water management 4. banning bottled water 5. keeping water systems public 6. water as a human right 7. investing in innovation 8. youth employment opportunities

The Ripple Effect Ontario
Youth Statement on Conserving and Protecting Ontario Water

April 22, 2010
Early Edition

United Nations Association in Canada
Association canadienne pour les Nations Unies

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The United Nations Association in Canada (UNA-Canada) has been engaging youth and community members on the issues that concern them for over 64 years. With a historic presence throughout Ontario, we have been privileged to work together with the province's youth on drinking water issues in their communities.

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Ripple Effect Ontario youth participants

Hamilton: Deanne Durward, Jacob Houpt, Kai Fan, and Si Chen.

Peterborough: Sam Morrell, Lynzii Taibossigai, Wilbert Ngumbullu, and Kristeen McTavish.

Youth4Water (Toronto): Jae Hong Kim, Pia Johnson, Hana Elmisry, Zahrah Munas, Stella Adewolu, Shiré Brandi, and Ameera McIntosh.

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Youth Statement on Conserving and Protecting Ontario Water

We, who represent the youth of Ontario, know the importance of protecting our drinking water sources. We are passionate about protecting this essential resource and have compiled this Youth Statement on Conserving and Protecting Ontario Water.

We provide the following recommendations in support of the Government of Ontario's efforts to conserve and protect our water.

1. We call on the Ontario government to integrate a holistic water curriculum into the education system.

This holistic water curriculum should:

- Introduce students to a theoretical framework for understanding the relevant characters (governments, environmental NGOs, businesses), concepts and theories related to water and environmental education.
- Integrate Aboriginal knowledge, recognizing that Aboriginal perspectives enable interconnected, appreciative, respectful, responsible and harmonious ways of ensuring the health of our waters for generations to come.
- Begin from a place of love and respect for the environment.
    - By "love for the environment" we mean valuing and having gratitude for all of Nature and its ecological and societal importance.
    - By "respect for the environment" we mean realizing the interconnections between people and nature and the responsibility people have to be good environmental stewards.
- Explore local environmental issues such as learning about local watersheds, the source of our drinking water, and local native plants and species.
- Use action-based learning which teaches conservation measures which learners and teachers can learn to apply in their daily lives, such as turning off the tap while brushing your teeth and drinking from a public water source.
- Explore experiential learning with students, which is learning about water beyond the formal classroom setting, through activities such as community water walks, testing local water and planting trees along the water.

We encourage the Ministry of the Environment and the Ministry of Education to work together with NGOs, community groups—including Aboriginal communities—and youth to create and implement this curriculum in Ontario public schools. We also recognize Ontarians' collective responsibility to educate themselves and voice their concerns to the government for more holistic water education in schools, as well as their responsibility to actively participate in making these changes happen.

Why there is a need for greater integration of water in the Ontario curriculum

- Based on our research, we have found that a large majority of Ontario citizens—especially youth—are inadequately informed about water issues and the source of their drinking water. We are concerned that without the public having a certain level of understanding about water issues, it will become more difficult for water to be protected, conserved and prioritized.
- The issue of protecting the environment is one of the greatest challenges that young people will face in their lifetime and they require the knowledge and skills to live more sustainably with the Earth and water.
- The myth that there is an abundance of water in Canada and that all people have access to clean drinking water gives a false sense of security and gets in the way of people conserving water.
- We need to create a culture of water conservation in Ontario. Conserving water saves energy, and helps ensure our future source of water. Conservation is our individual and collective responsibility.

2. We support increasing the action-based water learning available to the Ontario public at large, including education for communities, businesses, government and non-governmental entities on methods for conserving water at home and in the workplace on a daily basis.

Water learning should aim to increase responsibility:

- *At the individual level*, so that everybody takes responsibility for their own water use and for what they put down the drain.
- *At the corporate level*, to ensure that corporations are educated on the impacts of contaminants in our water and are taking responsibility for their actions.
- *At the government level*, to support more community groups such as *The Ripple Effect* to work in the community, engaging the public in active participation and education to better conserve and protect the source of our water.

3. We commend the Ontario government for taking a proactive and inclusive approach to the management of water through the multi-barrier, community-based *Clean Water Act*.

The Ontario government has the ability to reinforce the multi-barrier approach to source water protection across government ministries, departments and projects to ensure that all communities in Ontario have access to safe drinking water. Priority should be placed on rural and Aboriginal communities which are currently under "boil water advisories" and do not have access to safe drinking water. Protecting and conserving water and the environment should be a cross-cutting element in all government affairs, and not the sole responsibility of the Ministry of the Environment.

4. We encourage the movement to eliminate the sale of bottled water in Ontario public schools and university campuses and to promote the use of tap water as the main source of drinking water instead. We urge the Government of Ontario to support this movement.

Bottled water serves a function where water is not potable; it is not a substitute for municipal water that is safe to drink. The Ontario government has a responsibility to build trust around our public water systems, which currently many citizens do not trust. In addition, the use of re-usable, aluminum water bottles in schools, communities, governmental, non-governmental, and corporate working spaces should be encouraged to reduce the amount of eco-threatening plastic in use.

Why we should trust tap water over bottled water

- The Great Lakes Region provides some of the safest and cleanest drinking water in the world (State of the Great Lakes Report, 2009).
- Bottled water is less regulated than Ontario municipal tap water (Clarke, 2005).
- Bottled water companies have a record of depleting water sources and using misleading advertising (Clarke, 2005).
- Plastic bottles are eco-threatening: they release highly dangerous toxic chemicals and contaminants into the air and water when they are manufactured, and again when they are burned or buried, and are becoming the fastest growing form of municipal solid waste in Canada. (Clarke, 2005).
- Bottled water is estimated to be between 240 and 10,000 times more expensive than tap water (Clarke, 2005).
- Keeping water public gives Ontarians a voice in protecting and maintaining the natural resources and public services that we rely upon, thus creating a more transparent, participatory democracy.

References

Clarke, Tony (2005). *Inside the Bottle: An Expose of the Bottled Water Industry.* Ottawa: Polaris Institute.

Environment Canada and the U.S. Environment Protection Agency (2009). *State of the Great Lakes Report*. http://binational.net/solec/sogl2009/sogl_2009_h_en.pdf.

5. The ownership, distribution, pumping, treatment and filtration of municipal water systems should remain public to ensure accountability and transparency to Ontario citizens, and so that safe drinking water is accessible to all. We believe that the Government of Ontario is responsible for ensuring this.

6. Water should be recognized as a human right in Canada.

Article 31 of the *Universal Declaration of Human Rights* states:

"Everyone has the right to clean and accessible water, adequate for the health and well-being of the individual and family, and no one shall be deprived of such access or quality of water due to individual economic circumstance."

The Government of Ontario, with the responsibility to steward the Great Lakes, should put pressure on the federal government to recognize water as a human right, which it currently does not. This is imperative in order to promote universal access to clean drinking water for all Canadians.

7. We commend the Ontario Water Conservation Alliance and support their call for the Government of Ontario to continue to invest more into new and innovative ways to protect, conserve, treat and re-use water.

The government needs to set an example for the importance of conserving water. All government-run buildings should reduce their water consumption using practices such as recycling water for cooling and heating and using non-potable water in flushing toilets. This is important because conserving water reduces the energy and expenses used to pump, treat and heat water, thus lowering greenhouse-gas emissions and protecting the environment.

8. We advocate for the Government of Ontario to include young Canadians in the employment opportunities available in water development offered through the province's "Open Ontario Plan."

Conclusion. It is apparent that there is the need for intergenerational collaboration on water issues, including projects such as The Ripple Effect Ontario. In order to ensure the protection of this precious resource, it is critical that youth are involved in the political process and dialogue about the future of our water.

The Ripple Effect Ontario youth would like to acknowledge the generous support of our funder, the Ontario Drinking Water Stewardship Program.

Background: The Ripple Effect Ontario and the United Nations Association in Canada

Ripple Effect Ontario was launched in March 2009, building on UNA-Canada's strengths in developing youth engagement in water focused initiatives, under its national umbrella programme ***The Ripple Effect***. ***Ripple Effect Ontario*** is comprised of Youth Advisory Committees in Toronto (Youth4Water), Walkerton (Saugeen Ripples of Change), Hamilton (Ripple Effect Hamilton), Kingston (Ripple Effect Kingston), and Peterborough (Ripple Effect Peterborough). Youth have explored the water-management initiatives enacted as a result of the *Clean Water Act* through research, guest speakers and workshops. Learning in detail about source water protection and watershed management, members have engaged their communities about their local drinking water, to help create a youth voice for water stewardship in Ontario.

Ripple Effect Ontario is a community-based initiative managed by UNA-Canada staff. With the support of their Regional Coordinators and community mentors, these youth have dedicated countless hours to learning about local water and engaging people in their communities.

For the past year, youth involved in the project ventured out to learn about their local watersheds. They discovered about Source Protection Committees and the *Clean Water Act*. Participating in workshops on community-based research methods, youth learned about surveys, interviews, community maps, focus groups and community walks along watersheds. The research process extended beyond conventional research to a more exploratory, experiential learning experience for youth to engage in source water protection and drinking water issues within their respective communities.

History. In 2005 the United Nations declared the "Water for Life" decade to promote efforts to fulfill international commitments made on water and sanitation by 2015. In 2006 the United Nations Development Programme released the Human Development report *Beyond Scarcity: Power, Poverty and Global Water Crisis*.

It is the United Nations Association in Canada's mandate to educate and engage Canadians on international issues of concern to us all. In 2007 UNA-Canada developed the Canada Youth and the Right to Water programme in partnership with youth from Toronto Community Housing Corporation and the Institute at Havergal College to explore issues of local and international importance. A Youth Advisory Committee was formed, comprised of youth participants from both partner institutions. This Youth Advisory Committee, now known as Youth4Water, has active members who reach thousands of youth and community members across the GTA.

While learning about international issues of water scarcity, Youth4Water became aware that despite all of our fresh water in Canada, there are communities which face boil-water advisories and water contamination. They travelled to Walkerton, where they met with youth and community members who shared with them the experience of the *e coli* contamination crisis that the community faced in 2000. It became clear to these youth that in Canada, we too face the issue of access to clean water, and that this growing myth of our abundance often leads us to ignore the challenges we face locally. Building on this experience, with the support of the Ontario Drinking Water Stewardship Program (ODSWP), in March 2009, Ripple Effect Ontario was launched.

In addition to their grassroots work, members of Ripple Effect Ontario have had the opportunity to consider our watersheds from an international perspective. UNA-Canada created and developed a Model International Joint Commission to showcase this valuable bi-national group which is responsible for solving (and heading off) disputes related to shared water resources between Canada and the United States.

In June 2009, members from Ripple Effect Ontario participated in this pilot simulation which was developed to mark the hundred-year anniversary of the Boundary Waters Treaty.

Over the past five years, UNA-Canada's involvement in water issues has demonstrated that there is also a need for more Canadian youth to become active water stewards within their communities. Water is an essential part of our everyday lives and as sustainability becomes our new global and local reality, there are growing pressures for Canada to step up its commitment and investment in protecting our water resources. In communities across Ontario, steps are being taken to protect the drinking water sources (lakes, rivers, streams and underground water sources). However, policy measures alone are not sufficient to mitigate threats to our drinking water. Since water is a shared resource, the involvement of individuals, local communities and civil society is critical in taking an active role to protect water sources within communities.

Youth Statement. In February 2010, Ripple Effect Ontario youth met in Toronto to participate in Thirsty Minds: Youth Roundtable on Ontario Drinking Water. They met with experts, including representatives from the Ontario Ministry of the Environment, to discuss the *Clean Water Act* and source water protection; indigenous perspectives on water; the state of the Great Lakes; the impact of climate change and industry on Ontario water; and opportunities to bridge science with traditional knowledge. Youth from each region presented their key findings from their community-based research and discussed their collective vision for a joint youth statement. This statement is a culmination of these discussions and the youth's activities in local communities.

Research Report

Lead Researcher: Jespal Panesar

The Research Process

The research process attempted to create spaces for youth to engage community members in source water protection issues within their respective regions. The research applied an exploratory and participatory framework, and included the active involvement of community members through activities such as community conversations and walks to foster dialogue and interaction. The research process was both a way to collect information on key issues of source water protection issues in the region, as well as a learning experience for the youth involved in the various research activities.

Research Methodology

Before research began in each of the regions, groups were given an orientation workshop where they learned about basic research techniques. In addition to learning about quantitative research methods such as surveys, which provide numerical data, the regional research groups also learned about participatory and qualitative research methods that would help to foster dialogue and gain insightful information about community perceptions, concerns and thoughts on drinking water. Some of the common research methods used were:

Community/transect walks. Researchers selected a relevant (water-related) area in their community and went on a walk with local residents and experts to better understand the unique water issues at various points along the walk. Participants were asked to record their thoughts and perceptions and the qualitative results were analyzed.

Community conversations (focus groups). Participants were asked to participate in a facilitated discussion on water issues within their region. This was done in various ways, e.g., in informal settings such as at the local café or after a community walk.

Semi-structured interviews. The youth conducted interviews on topics related to drinking water with various members of the community, including residents, local experts (e.g., academics, civil society organizations) and municipal government authorities. Questions were open ended, allowing for participants to provide in-depth answers on their perceptions, experience and knowledge. Interviews were done in a variety of formats, e.g., over the phone, video taped, by email, etc.

Surveys. Several of the youth groups used short surveys (8–10 questions) to attain quantitative data on drinking water issues within their community. In addition to collection numerical data, the surveys also attempted to capture qualitative responses about community perceptions. The surveys were administered in person (paper format) and also completed online using tools such as Google Forms and Survey Monkey. Responses provided a mix of both qualitative and quantitative data. Youth were a key demographic for the survey responses.

Given the diversity of regions involved, prior to conducting research each group had to establish their main research focus (objectives of their research) along with designing, pre-testing and administering the research tools. Groups also analyzed and synthesized the collected information into key findings.

Detailed research findings were presented at a regional roundtable workshop, a gathering of the five youth groups, Ministry of Environment officials and key speakers from civil society organizations. These findings contributed to the creation of the ***Youth Statement on Conserving and Protecting Ontario Water*** presented in this document.

Regional Findings

Having explored and researched water issues within their respective communities, the youth groups collected rich and varied findings reflecting the views, perceptions and concerns of residents within their region. Key research findings for each region have been summarized below.

Saugeen Ripples of Change (Walkerton)

Over the past year, Walkerton area youth, as a part of Ripples of Change (RoC) have been researching and collecting data on the topic of "Perceptions of Walkerton Drinking Water." RoC engaged with the community through informal interviews with local experts, hosting a water-themed movie night with discussion, interaction with the local Source Water Protection Committee and a transect (community) walk with local high school students. 100 surveys were also distributed to community members including youth, adults and seniors. Surveys were anonymously filled out online, or on paper to reach as many demographic groups as possible. All survey respondents gave strong qualitative and quantitative results. RoCs key findings were:

There remains a lack of trust in local drinking water.

A large portion of the Walkerton community is not satisfied with the state of Walkerton's water. Ten years after the tragic events of the Walkerton water crisis, local residents do not trust municipal drinking supplies. Residents are passionate about water issues, but a significant group, including youth, are virtually uninformed on protection, treatment processes or even the source of Walkerton's drinking water. Residents are aware of potential risks and contaminants, but feel that they have no way of reporting or fixing the problem. Almost all survey respondents relayed the need for more education on protecting drinking water.

Survey Response about bottled water use:

14% of those who were surveyed believe bottled water is a safer choice than tap water, and 14% do not know which is safer. Residents feel as though they should be able to strongly trust tap water but still, 10 years after the Walkerton water crisis, many do not.

"Citizens, (including business, industry, agriculture, etc.) need to be educated on the impact that their practices (what they put down the drain, on the ground and out their back door) have on their water sources."
- Walkerton Resident

Greater governance is needed for source water protection in Walkerton.

There were varied views on the degree of additional protection needed for drinking water, and whether the mechanisms needed to ensure appropriate source water protection are in place. Residents praised the work of local drinking source water protection committees, yet they fear that new bylaws are not sufficiently being enforced. Some residents feel that the government still puts too much emphasis on treatment, overlooking the need for source water protection. They feel that policies and actions have been slow to be put in place. Other residents feel that drinking sources can continue to be sufficiently protected, but only if funding is continuously provided, protocols are enforced, and communities are aware of possible threats. Some residents even feel that there is sufficient protection, yet feel that bottled water sources are safer than tap. Even residents who believe there is sufficient protection do not trust tap water.

Chemical pollutants.

Waterways are still being polluted and nitrates are a major concern for the Walkerton area. Those surveyed identified nitrates, *e coli*, chlorine and coliform as possible water contaminants. Landfill runoffs, leaching from storage tanks and agricultural runoffs were considered to be the top three sources of these contaminants by those surveyed. However, although residents are aware of these contaminants, there is little knowledge of how to deal with the issue.

"The key message is to not put the wrong things down the drain such as home cleaning supplies or old medications or any chemicals that will make their way to the lake."

- Mark Cooper
Information Officer for Toronto Water

Youth4Water (Toronto)

Youth4Water (Y4W) is Ripple Effect Ontario's Youth Advisory Committee in the Greater Toronto Area (GTA). Y4W was the first youth group formed under the Ripple Effect programme and has been running for approximately three years. In 2008 Y4W surveyed 469 youth in the GTA on their water knowledge and perceptions. Over the past year Y4W explored drinking water through various activities: interviews with local experts and environmental organizations; researching secondary data (such as key publications and reference materials); organizing a community walk of Ashbridge's Bay Sewage Treatment Plant; and conducting a watertaste test (at York University and a local mall). The key findings are as follows:

More education is needed on the impact of storm water in Toronto and on Lake Ontario.

To learn more about storm water issues, Y4W interviewed local expert Mark Cooper, Information Officer for Toronto Water, and reviewed relevant literature, namely the Wet Weather Flow Mater Plan Implementation reports—a long-term plan aimed at protecting Toronto's waterways. Storm water, especially storm water overflows (excessive water which is the result of heavy rainfalls or melting snow), have a significant impact on water quality. Often storm water overflows carry debris, salt, pesticides and other pollutants that go untreated directly into Toronto's lakes and streams. Overflows have also been known to cause basement flooding and contribute to aging infrastructure.

Managing storm water overflows is a key concern within Toronto. However, a previous study showed that, although drinking water and lake water quality are primary environmental concerns amongst Toronto's residents, storm water, which directly contributes to water quality, was not a top priority. Mark Cooper highlighted that in order to better manage storm water impacts, Toronto residents need to take responsibility and understand what is poured down the drain. He noted that greater education and awareness is needed in this regard (e.g., check for car leaks, stoop and scoop animal waste, avoid dumping pharmaceuticals down the drain).

Apart from the need for education on storm water issues, more education is needed on drinking water issues in general, particularly for youth. This is reflected in a 2008 survey Y4W conducted on youth perceptions of water in the GTA, which showed that 42.6% of youth did not know where Toronto's drinking water comes from and less than half of the youth (44.7%) recall ever taking a class where water issues were taught.[1]

[1] Alcorn, Lauren; Heal, Bryan (2009). *Report on a survey of youth in Toronto on water knowledge and perceptions*. The United Nations Association in Canada, The Ripple Effect and Youth4Water.

Greater accessibility is needed to enable residents to participate in environmental and efficiency initiatives.

Tenants and those of lower socio-economic backgrounds are often marginalized in environmental movements around water. Educational initiatives are considered to be a critical way to bridge this gap. Moreover, traditionally marginalized communities need alternatives that are inclusive and accessible in order for them to actively participate in environmentally driven initiatives. One such green initiative is the volunteer run *Toronto Balconies Bloom* project, which aims to support communities and residents with balconies to create thriving balcony gardens in Toronto. The organization provides gardening information and a community hub for sharing resources. Since the project aims to grow food, even on a small scale, it is seen as an affordable and accessible way to participate in an environmental initiative and benefit from gardening.

Perceptions about bottled water.

Throughout their research, Y4W learned several key facts about bottled water:

- Bottled water companies do not test water as frequently as public water (which is tested every hour).[2]
- Contaminants like arsenic have been found in bottled water and estrogen-mimicking chemicals are found in the plastic bottle plastic which can hinder water quality.[3]
- Up to three times as much water is needed to manufacture one bottle of water and this process releases greenhouse gas emissions.[4]
- Bottled water costs four times as much as one litre of gas.[5]

To better understand local perceptions of bottled water versus tap water, Y4W conducted a water taste test. Individuals believe that bottled water is "safer" than Toronto tap water. However, few individuals knew about Toronto's stringent water regulations and water treatment processes. There was also a notion that bottled water was somehow increasingly convenient, as opposed to tap water.

Responses from those participating in the water taste test:

"Bottled Water is more convenient simply because you can go and buy it when you're outside your own home, I do not know if all taps have clean water."

"Plastic bottles are bad for the environment, and I know I contribute to it. However, I really did not know that water bottle companies don't have accountability to NOBODY. That is alarming and frightening, and wrong in so many ways."

"Tap water is already provided to me... why must I feel the need to go and pay extra for something that is of less quality and potentially contaminated?"

2 Clarke, Tony (2005). *Inside the Bottle: An Expose of the Bottled Water Industry*. Ottawa: Polaris Institute.

3 Ibid.

4 Ibid.

5 Ibid.

Ripple Effect Hamilton

Ripple Effect Hamilton explored themes of water awareness, water safety, dangers to clean drinking water and public opinion of water throughout their research. In addition to background research on Hamilton, a survey of 200 people was conducted. Eighty percent of respondents were high school students or youth (ages 18-24). A focus on youth respondents was considered to be important since, as one of the researchers explained, "we are the future." Ripple Effect Hamilton also did video interviews of 12 individuals, residents and local water experts. Here is a summary of their findings:

Pollution from industry.

Starting in the 1950s there was a growth in population and manufacturing industries in Hamilton. As well, the development of Hamilton Harbour resulted in little circulation of water between harbour and lake. As industrial development increased, pollutants and sediments from the steel industry and agriculture accumulated in the harbour, resulting in water contamination. In the 1970s, steel companies (Stelco and Defasco) spent millions of dollars to clean the sediment from the harbour.

Perceptions about Hamilton's drinking water.

Although 78% of those surveyed believe that water is safe for drinking, the majority of people (79%) felt that there should be stricter regulations enforced to protect drinking water.

Some of the concerns about drinking water expressed by those who were interviewed and surveyed include:

- The prevalence of lead pipes in Hamilton homes (approx. 25,000) and their possible health effects.
- Chemical and pharmaceutical contaminants in the water.
- Contamination of lake water is a growing concern, due to increasing population and industrial growth.

79% of respondents thought that there should be stricter regulations enforced to protect drinking water.

Survey responses when asked how people felt about drinking water safety in Hamilton:

"I feel uncomfortable with steel industry along the water."

"I don't drink from tap at home because of steel mills dumping."

"Subsequently the good news is that as a result of the Walkerton inquiry and the recommendations that arose form that inquiry, new legislation, tougher legislation has been working its way through the drinking water industry….it's finally come on board, it's taken some time but it's here."

- Carlos Catarino, a public health inspector for the City of Hamilton

Bottled water versus tap water.

Bottled water. Although bottled water is good for emergencies and in situations where there is uncertainty about safe drinking water, the main disadvantages of bottled water are cost and environmental impact. Bottled water is far more expensive relative to municipal water. There are additional costs related to treatment, transportation and marketing of bottled water. As well, there is the cost and environmental impact associated with producing the plastic bottle.

Tap water. Tap water is available on demand. It is very inexpensive to treat when compared to bottled water. As well, municipal water suppliers have stringent regulations on operations, source protection, testing labs, certification and emergency response procedures. The chlorination helps to maintain disinfection as the water travels through the distribution pipes.

Ripple Effect Kingston

Ripple Effect Kingston's research focused on engaging the general public on issues pertaining to water equity, scarcity, pollution in the Kingston region. This was accomplished through public surveys and interviews. The surveys helped quantify the general awareness and concern for water in the Kingston region. Interviews were done with professors from Queen's University, as well as politicians like the Honourable John Gerretsen, Ontario Minister of the Environment. Community members (including members of Aboriginal communities) were interviewed. The group also had a keen interest in gaining the opinions of youth. Some key findings include:

A lack of knowledge about where drinking water comes from.

In the general public, it was found that there is a lack of knowledge about water-related issues such as pollution and equity. It is important to recognize that a lack of knowledge exists as it means that water is essentially taken for granted by many in the community. When asked "where does your drinking water come from?" the vast majority of respondents (60%) had no knowledge of the fact that Kingston water came from Lake Ontario.

Concerns and perceptions about water filtration.

Another issue that was repeated throughout the research was the filtration of city water. This was reflected in many people's distaste with chlorine in the water. Stemming from this concern is the fact that chemical pollutants are not filtered out of municipal water because, as Dr. Stephen Brown of Queen's University suggests, there is a lack of infrastructure to filter chemical contaminants on a large scale.

Misguided views on bottled water.

Based on interviews and surveys, many people considered bottled water safer than tap water, and if they had a choice between a public drinking fountain or a bottle of water the latter would be the most common choice. This links to the general conception that public water is dirty, or not maintained. Again, this can be related to a lack of public education on water-related issues, and even a negative perception of municipal water.

The privatization of water…

"...shouldn't happen. Water is a public resource. I have been adamant about this and will continue to be adamant about this. There may be different ways in which we can deliver water to the people of Ontario, through our municipal systems but certainly it should remain a public resource.... The real issue and question we have is how do we get people to better conserve and to make more efficient use of freshwater sources we have out there and at the same time by not allowing the cost to rise too much and that is probably going to be the debate that is going to take place over the next while."

- The Honourable John Gerretsen, Ontario Minister of the Environment

Ripple Effect Peterborough

Peterborough Ripple Effect initiated their research late in 2009 and, given time constraints, they conducted a smaller scale research project. The group did interviews with local water and environmental experts through email and phone calls, comparing answers as well as pursuing further investigation. A professor from Trent University as well as a member of the Trent Source Protection Committee were interviewed. From talking to various individuals, two main issues were identified with regard to source water protection issues in Peterborough:

Pharmaceuticals are an increasing concern.

Pharmaceuticals are becoming an area of increasing concern in Peterborough (as well as the rest of Canada). All those interviewed agreed that the discovery of new aquatic weed growth at the bottom of the Otonabee River was quite a concern. Although they see no major concerns at the moment related to our water source, in the future contamination from pharmaceuticals may pollute the water; once contaminants from the weed growth are proven this may also be of concern.

Industrialization.

The industrialization currently taking place in Peterborough, such as the Quaker plant and the GE plant, are somewhat of a concern because they are both built close to the river and the pollution they produce effects the environment around them, including the Otonabee River that flows beside the Quaker plant.

Conclusion

Based on the research done by each region, there are several common findings about source water protection across the province:

- It is apparent that there remains a lack of trust in tap water versus bottled water despite the rigourous testing of tap water and the demonstrated environmental impacts of the bottled water industry.
- Much of the views on tap water relate to knowledge and perceptions about municipal water supplies.
- One of the primary environmental concerns voiced by community members across all regions is the effect of those contaminants and pharmaceuticals that cannot be filtered out of the water.

Hence, in many cases community members have voiced a strong opinion that greater water governance is needed, in the form of better infrastructure, stricter regulations, more monitoring at the municipal level and programmes that better support conservation efforts. One of the overarching findings that all regions have identified is that there remains a lack of knowledge and awareness about drinking water and source water protection. In particular, environmental literacy is lacking for youth.

This is why greater education on water sources is one of the key agenda items featured in the **Youth Statement on Conserving and Protecting Ontario Water**.

1. holistic water curriculum 2. action-based water learning 3. proactive water management 4. banning bottled water 5. keeping water systems public 6. water as a human right 7. investing in innovation 8. youth employment opportunities

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