



GREAT LAKES AND ST. LAWRENCE CITIES INITIATIVE
ALLIANCE DES VILLES DES GRANDS LACS ET DU SAINT-LAURENT

RESOLUTION 19– 2009M

WASTEWATER TREATMENT AND WATER SUPPLY IN THE GREAT LAKES AND ST. LAWRENCE

Submitted by Town of Ajax

WHEREAS, the freshwater resources of the Great Lakes and the St. Lawrence River are the largest source of fresh water in the world and the primary source of drinking water for about 40 million people currently living within the Great Lakes and St. Lawrence Basin; and

WHEREAS, these resources are also essential for boating, fishing, swimming, and other activities important to the quality of life and economic well being of the people; and

WHEREAS, industry and agriculture in the region rely on the resource for their success, and are essential for a strong economy in the area; and

WHEREAS, domestic, commercial, agricultural, and industrial uses in Great Lakes and St. Lawrence communities, which will grow in the decades ahead, will continue to depend upon the quality and quantity of these finite resources to be sustained in the future; and

WHEREAS, there are many point sources of contaminants (industrial outfalls, sewage treatment plants) within and beyond the Basin creating threats to water quality that are conceptually easier to monitor and control than non-point sources (shipping, agriculture, large-scale urban runoff, historically contaminated sediments); and

WHEREAS, the shipping industry, agricultural practices, flows from creeks and storm sewers and, in some cases, untreated sanitary sewer overflows and areas of concern identified decades ago continue to contribute contaminants to our Lake waters; and

WHEREAS, small, medium, and large sewage treatment plants across the basin represent significant point sources of contaminants which can adversely affect the quality of the water if not constructed or operated properly, or if located in an area especially vulnerable to the discharges; and

WHEREAS, some sewage treatment plant outfalls are located near drinking water intakes and beaches, and in certain areas, lake circulation patterns can trap discharged effluent in nearshore waters and contaminate sediments that can act as persistent risks, also presenting a threat to municipal water supplies and to swimmers; and



WHEREAS, many growing communities have constructed very large treatment plants, with encouragement from provincial and federal governments, which have not provided the level of support necessary to operate and maintain the facilities properly; and

WHEREAS, the ecological community of the Great Lakes is changing in response to these increasing levels of environmental stress, resulting in widespread algal growth on lakebeds, carried to shorelines by wind and wave action, where it decomposes, providing visual evidence of declining nearshore water quality from an overabundance of nutrients, such as phosphorus and nitrogen, and changing ecological conditions exacerbated by sewage treatment plants, non-point runoff, and invasive species, such as mussels; and

WHEREAS, as population growth continues and wastewater treatment service areas expand or communities intensify, the volume of discharged treated effluent will continue to increase, introducing more nutrients and contaminants daily into nearshore waters; and

WHEREAS, wastewater composition is becoming more and more complex due to inputs of an increasing array of chemicals from industrial and commercial processes and pharmaceuticals and personal care products; and

WHEREAS, with new sampling and analytical tools, water models and recent advances in wastewater treatment technologies, it is now possible to identify unseen waterborne contaminants in small amounts and better determine the origin of pathogens; and

WHEREAS, water supply plant intakes are often interspersed among sewage treatment plant outfalls on the shorelines of the Great Lakes and St. Lawrence Basin; and

WHEREAS, nuclear plants are also located on these shorelines, sometimes close to water supply plants, as they also depend on the Great Lakes to provide cooling waters for reactors and to receive warmed water outputs; and

WHEREAS, chemical emissions into Lake and River waters from treatment processes in water supply plants need to be managed properly to protect our aquatic resources; and

WHEREAS, the nearshore waters of the Great Lakes have been recently recognized as a distinct zone with limited and slow mixing with the much more voluminous offshore waters, which have been assumed in the past to be available for rapid dilution and assimilation of contaminants; and

WHEREAS, better protection and improvement of the quality of freshwater resources in the Great Lakes and the St. Lawrence River Basin are necessary to sustain the millions of people living within the Basin today and in the future.



NOW, THEREFORE, BE IT RESOLVED, that the Great Lakes and St. Lawrence Cities Initiative encourages federal, provincial and state governments in the United States and Canada to increase their funding for expedited scientific research and development on drinking water and wastewater treatment technology, source water protection strategies, and water quality monitoring and assessment; and

BE IT FURTHER RESOLVED, that the Great Lakes and St. Lawrence Cities Initiative strongly urges the Canadian and United States federal, state, and provincial governments to concurrently invest in the Great Lakes and St. Lawrence communities of today and the future by allocating long-term, sustained funding to acquire the most current drinking water and wastewater infrastructure technology, and to conduct the necessary water quality monitoring, analyses, and assessment within their watersheds and along their shorelines for the purpose of identifying and curbing local point and non-point sources of contaminants entering Great Lakes and St. Lawrence waters and for public education; and

BE IT FURTHER RESOLVED, that the Great Lakes and St. Lawrence Cities Initiative strongly urges the federal governments of Canada and United States to advance source water protection strategies, establish protective environmental standards and require the best available treatment technologies be used for water supply plants - to protect Great Lakes and St. Lawrence communities' drinking water – and for wastewater facilities to protect water quality; and

BE IT FURTHER RESOLVED, that the Great Lakes and St. Lawrence Cities initiative strongly urges the federal, state, and provincial governments of Canada and the United States to allocate the necessary resources to re-evaluate and, where appropriate, improve, monitor using the most meaningful technologies, and enforce the drinking water and wastewater standard to ensure the highest possible compliance rates; and

BE IT FURTHER RESOLVED, that the Great Lakes and St. Lawrence Cities Initiative strongly urges the federal, state, and provincial governments of the United States and Canada to focus their priorities, resources and actions to efficiently and effectively honor longstanding commitments in treaties and agreements to protect, enhance and restore Great Lakes and St. Lawrence water quality and quantity; and

BE IT FURTHER RESOLVED, that the Great Lakes and St. Lawrence Cities Initiative strongly urges the federal, state and provincial governments of Canada and the U.S. to consider the nearshore waters and shorelines of the Great Lakes and St. Lawrence as areas of environmental significance, and establish water quality-related effluent limitations, with appropriate consideration of the need for economic growth and jobs, for localized areas where the condition of the receiving water body, and the size and nature of discharging facilities such as sewage treatment plants, industrial plants, and nuclear plants, are such that generally applicable requirements do not provide adequate protection to water quality, in the Great Lakes Water Quality Agreement and the Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem, accompanied by strong water policies to



highlight their shared commitment to Great Lakes water quality, and to promote effective joint actions with Great Lakes communities to address controllable sources of contaminants, using new and emerging testing methodologies and water treatment technologies.

Signed this 18th day of June, 2009

A handwritten signature in black ink, appearing to read "G. Heartwell", written over a horizontal line.

George Heartwell, Chair
Mayor of Grand Rapids
Great Lakes and St. Lawrence Cities Initiative