Great Lakes Commission
des Grands Lacs

**RESOLUTION**

Adopted September 20, 2017

# Addressing Contaminants of Emerging Concern in the Great Lakes Basin

**Whereas,** the waters of the Great Lakes and St. Lawrence River provide a multitude of ecological, social and economic benefits for approximately 40 million Canadian and U.S. residents; and

**Whereas,** the term "Contaminants of Emerging Concern" (CECs) refers to a wide variety of compounds that are present in the Great Lakes and St. Lawrence river basin[1] that are not widely or consistently regulated, such as Polybrominated Diphenyl Ethers (PBDEs), Perfluorinated Compounds (PFCs) pharmaceuticals, 1,4-Dioxane, and microplastic; and

**Whereas,** PBDEs are used as flame retardants in many common consumer products, PFCs are used as firefighting foams and in non-stick cookware, pharmaceuticals typically enter waterways via improper disposal of unused medicines and excretion into waste streams, 1,4-Dioxane is found in a variety of products from paint strippers and varnishes, to deodorant and shampoo, and microplastics in the environment are derived from a myriad of sources including pellets from the manufacturing industry, microfibers shed from clothing, and as a component of commercial and recreational waste streams; and

**Whereas,** the lack of a standard definition for CECs across international boundaries and an inconsistent regulatory environment at the state, provincial, and federal levels creates difficulty in addressing the threat that they pose; and

**Whereas,** there is a high level of uncertainty regarding the potential human health and ecological risks associated with both known CECs and CECs that are yet-unidentified but may be present in the Great Lakes and St. Lawrence river basin; and

**Whereas,** wastewater treatment plants in the U.S. and Canada discharge 4.8 billion gallons of treated effluent into the Great Lakes basin every day, and these wastewater treatment plants are only equipped to remove approximately half[2] of the chemicals that have been identified in sewage; and

**Whereas,** some CECs, including PBDEs and some PFCs (PFOA and PFOS), are considered Chemicals of Mutual Concern (CMCs) under Annex 3 of the Great Lakes Water Quality Agreement (GLWQA) while others, such as microplastics, various pharmaceuticals, and 1,4-Dioxane, are not part of that effort; and

**Whereas,** CECs come in many forms, and microplastics are an example of a CEC that is present in the Great Lakes and St. Lawrence river basin that is not found as an aqueous solution, but as tiny solid fragments of larger broken-down materials; and

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[1] 2011. University of Windsor Department of Civil and Environmental Engineering and International Joint Commission. *Chemicals of Emerging Concern in the Great Lakes Region*. Retrieved from: http://www.ijc.org/php/publications/pdf/ID696.pdf

[2] 2013. International Joint Commission. *More on IJC's Great Lakes Wastewater Treatment Study Removing Chemicals of Emerging Concern.* Retrieved from: http://www.ijc.org/en_/blog/2013/12/11/more_on_IJC_great_lakes_wastewater_treatment_study_cecs/

**Whereas,** while multiple discrete efforts are underway to better understand and address the impacts of some individual CECs, an effort to look more holistically at CECs and their cumulative risks to the Great Lakes and St. Lawrence river basin economy and environment would inform the Great Lakes Commission's ability to respond appropriately on the issue of CECs.

**Therefore, be it resolved,** that the Great Lakes Commission (GLC) recognizes that advancing the understanding of the harmful impacts of CECs and taking precautionary steps to impede their further introduction, spread, and accumulation via all known pathways is critical to protecting the economic and ecological well-being of the Great Lakes-St. Lawrence River region; and

**Therefore, be it resolved,** that the GLC supports using a science-based process to assess risks and to develop binational strategies to take action on CECs that have been listed as CMCs under Annex 3 of the GLWQA, and calls for the expansion of this list to include pharmaceuticals, microplastics, and 1,4-Dioxane; and

**Therefore, be it resolved**, that the GLC applauds the federal actions of the U.S. and Canadian governments geared towards banning the use of microbeads in rinse-off cosmetic products, and urges the U.S. EPA and Environment Canada to implement the recommendation put forth by the International Joint Commission (IJC) to develop a binational plan to prevent microplastics from other known sources from entering the Great Lakes using a combination of science and research, policy, market-based instruments, and education and outreach; and

**Therefore, be it finally resolved,** that the GLC requests that government agencies as well as research institutions: 1) assess whether existing plans, programs and policies are adequate to identify and mitigate the risks posed by CECs and protect the Great Lakes and St. Lawrence River basin and its residents from those risks; and 2) recommend additional efforts including targeted areas of research and the development of policies, technologies, and safer alternative compounds that might be needed to address current and future CECs in the Great Lakes basin.

*Adopted at the 2017 Annual Meeting of the Great Lakes Commission, September 19-20, 2017 in Duluth, Minnesota.*
*The resolution was passed unanimously.*