

**From:** [Michael Murray](#)  
**To:** [Great Lakes \(CDC\);](#)  
**Subject:** Comments on ATSDR 244 (Great Lakes AOCs)  
**Date:** Monday, June 30, 2008 7:32:12 PM  
**Attachments:** [ATSDR-AOCs-NWF-Comments.pdf](#)

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Dear ATSDR,

Please accept the attached comments from the National Wildlife Federation on the document ``Selected Information on Chemical Releases Within Great Lakes Counties Containing Areas of Concern (AOC) (Public Comment Draft 2008)".

Michael Murray

National Wildlife Federation

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June 30, 2008

Ms. Olga Dawkins  
ATSDR  
Division of Toxicology and Environmental Medicine  
1600 Clifton Road, NE.  
MS F-32  
Atlanta, Georgia 30333

Re: ``Selected Information on Chemical Releases Within Great Lakes Counties  
Containing Areas of Concern (AOC) (Public Comment Draft 2008)''

Dear Ms. Dawkins,

On behalf of the National Wildlife Federation ("NWF"), I am submitting comments on the report, ``Selected Information on Chemical Releases Within Great Lakes Counties Containing Areas of Concern (AOC) (Public Comment Draft 2008)'' ("Draft AOC Report"). Working with our state affiliates and other groups, NWF has long promoted efforts to protect and restore water quality throughout the Great Lakes region and beyond, including through the Great Lakes Water Quality Agreement (GLWQA). These efforts have included a number of activities, including identifying limitations in emissions inventories, promoting pollution prevention programs (including for point source dischargers), and promoting the cleanup and restoration of contaminated sites, including Areas of Concern (AOCs).

We appreciate the efforts the Agency for Toxic Substances and Disease Registry (ATSDR) has undertaken in producing the Draft AOC Report on chemical releases within Great Lakes counties containing AOCs. Restoration of AOCs is one of eight key issue areas identified through the Great Lakes Regional Collaboration Process (GLRC), in which NWF has been heavily involved.<sup>1</sup> We do believe the Draft AOC Report can be improved in several ways, including in more accurately characterizing the binational policy context, a more complete description of methodological approach and limitations, and recognition of other related research on these issues, as summarized below.

1. The Draft AOC Report should accurately characterize the policy context.

The Executive Summary of the Report (first paragraph) references the International Joint Commission (IJC) as "the binational organization that works to implement the Great Lakes Water Quality Agreement (GLWQA) between the U.S. and Canada." In fact, the first paragraph of Article II of the GLWQA states the following:

"The purpose of the Parties is to restore and maintain the chemical, physical, and biological integrity of the waters of the Great Lakes Basin Ecosystem. In order to achieve this purpose, the Parties agree to make a maximum effort to develop programs, practices

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<sup>1</sup> Great Lakes Regional Collaboration, including Strategy report, available <http://www.glrc.us/>

and technology necessary for a better understanding of the Great Lakes Basin Ecosystem and to eliminate or reduce to the maximum extent practicable the discharge of pollutants into the Great Lakes System.”<sup>2</sup>

Thus, the principal actors in implementing programs to meet the goals of the GLWQA are the Parties (the governments of the U.S. and Canada), rather than the IJC. Article VII of the GLWQA notes that the IJC “shall assist” in implementation of the GLWQA, including through collection, analysis and dissemination of data, tendering of advice and recommendations, provision of coordinating assistance, and reporting. ATSDR should ensure that the purpose and implementation process of programs through the Great Lakes Water Quality Agreement are correctly specified in the Executive Summary and any other relevant locations in the Draft AOC Report.

In addition, the third paragraph of the Executive Summary states that the GLWQA “defines ‘critical pollutants’ ...”, but provides a narrative definition that does not capture the exact definition of the term in the GLWQA.<sup>3</sup> We recommend that ATSDR either provide the full definition as written in the GLWQA, or rephrase the sentence to paraphrase rather than imply an exact definition.

In addition, the second sentence of the third paragraph of the Executive Summary references “12 categories of critical pollutants.” The Draft AOC Report later discusses 11 critical pollutants. The Great Lakes Water Quality Board identified 11 “critical pollutants” in 1985, and the GLWQA notes that the “Parties, in cooperation with State and Provincial Governments and the Commission, shall designate Critical Pollutants for the boundary waters of the Great Lakes System or for a portion thereof.”<sup>4</sup> Presumably, the reference to “critical pollutants” in the Executive Summary of the Draft AOC Report is to the 11 critical pollutants identified by the Water Quality Board in 1985, and if so, this should be indicated, with the appropriate reference. In addition, assuming this interpretation is correct, we suggest a minor wording change, to replace “categories” of critical pollutants with “classes”.

2. The Draft AOC Report should ensure that a full description of the methodological approach followed is provided, reasons for changes from earlier drafts are presented, and rationale for and limitations of chosen data sets is indicated.

The Methods and Data section of the Draft AOC Report (i.e. Section 1.3 and subsequent sections), would benefit by a more thorough explanation of the goal of the project. For example, the Draft AOC Report notes that information on both previous public health assessment products for the region, as well as additional compiled chemical release and other data are provided (Chapter 1, introductory section, fourth paragraph). Both of these elements should be briefly described in Section 1.3 and subsequent sections.

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<sup>2</sup> Great Lakes Water Quality Agreement, available at [http://www.ijc.org/en/activities/consultations/glwqa/GLWQA\\_e.pdf](http://www.ijc.org/en/activities/consultations/glwqa/GLWQA_e.pdf)

<sup>3</sup> See Great Lakes Water Quality Agreement, Annex 2, Section 1.

<sup>4</sup> See Great Lakes Water Quality Agreement, Annex 2, Section 5.

Concerning the newer chemical release data (i.e., discussion in Section 1.3), the Draft AOC Report should distinguish between different types of data considered. In particular, it would be helpful early on in this section to distinguish between numeric ambient data (e.g., some of the data provided through the ATSDR Hazardous Waste Site Assessment Data), actual release data (e.g., through the Toxics Release Inventory (TRI) and the National Pollutant Discharge Elimination System databases), and programmatic data (e.g., Impairments of Beneficial Use data, which is obviously based on some type of ambient data).

In addition, the Draft AOC Report appropriately identifies some limitations with TRI data, but could also indicate that there are other data sources that could be pursued in identifying chemical releases in or near AOCs, including the U.S. EPA National Emissions Inventory.<sup>5</sup>

The Draft AOC Report should also include a section summarizing changes made, and rationale, from earlier drafts. For example, the July 2007 draft included general findings from Health Resources and Services Administration Community Health Status Reports in summarizing health assessment products for relevant hazardous waste sites, while these findings are not included in the Draft AOC Report. Although this effort was not designed to be a rigorous epidemiological study of potential health impacts of contaminants in Great Lakes AOCs, we believe including findings of the Community Health Status Reports (in particular assuming there is some potential biologically plausible association between exposure and effect) could help guide future research into these issues.

3. The Draft AOC Report should acknowledge other research efforts examining the relationship between chemical releases and health outcomes in the Great Lakes, including in the context of an overall assessment of critical pollutants.

While recognizing ATSDR-supported research efforts, the Draft AOC Report minimizes reference to independent studies assessing relationships between chemical releases or exposures and health outcomes in the Great Lakes region. Numerous studies have been published in the past two decades examining aspects of these issues, including, for example,

- A pilot study on mortality, hospitalizations, and congenital anomalies in Canadian AOCs<sup>6</sup>
- Findings of increased incidences of thyroid disorders, morbidity from diseases of the genital tract, and endometriosis in certain age groups of women living near three New York AOCs<sup>7</sup>
- Finding that anglers (in particular Asian-Canadians) consuming fish from Ontario AOCs had higher mercury levels than those in anglers consuming fish from other areas<sup>8</sup>

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<sup>5</sup> See an assessment of three air release inventories in the Great Lakes states in Murray, M. and Holmes, S.A., 2004, Assessment of Mercury Emissions Inventories for the Great Lakes States, *Environmental Research*, 95:282-297.

<sup>6</sup> Gilbertson M., Brophy J. 2001. Community health profile of Windsor, Ontario, Canada: Anatomy of a Great Lakes area of concern. *Environmental Health Perspectives* 109:827-843.

<sup>7</sup> Carpenter D.O., Shen Y., Nguyen T., Le L., Lininger L.L.. 2001. Incidence of endocrine disease among residents of New York areas of concern. *Environmental Health Perspectives* 109:845-851.

<sup>8</sup> Cole D.C., Kearney J., Sanin L.H., Leblanc A., Weber J.P. 2004. Blood mercury levels among Ontario anglers and sport-fish eaters. *Environmental Research* 95:305-314.

While acknowledging the limitations of the assessment done for the Draft AOC Report, ATSDR should acknowledge findings of epidemiological studies in the region (and elsewhere), as well as general epidemiological principles (e.g., strength of association, biological plausibility, etc.) in providing an overall assessment. The Agency should also consider whether all the data to date (including beyond the assessment done for the Draft AOC Report) justifies the position that “it is currently impossible at this time to define ‘the threat to human health from critical pollutants’ found in the Great Lakes basin...”, as is done in the Executive Summary.

In addition, two sections in the Conclusions (Section 7.1, sixth paragraph, and Section 7.2, second bullet) incorrectly state that Pennsylvania’s Presque Isle Bay does not currently have any fish consumption advisories. The 2008 advisory brochure from Pennsylvania in fact indicates that a one meal per month PCB advisory is in place for the Bay for eight fish species.<sup>9</sup>

In summary, we appreciate the opportunity to comment on the report “Selected Information on Chemical Releases Within Great Lakes Counties Containing Areas of Concern (AOC) (Public Comment Draft 2008)”, but believe the document can be improved, and hope that the Agency for Toxic Substances and Disease Registry takes the above comments into account in finalizing this important document.

Sincerely,

Michael Murray, Ph.D.  
Staff Scientist

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<sup>9</sup> Commonwealth of Pennsylvania, 2008 Fish Consumption, Public Health Advisory, <http://www.fish.state.pa.us/fishpub/summary/sumconsumption.pdf>