UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

JUN 4 2012

REPLY TO THE ATTENTION OF:

Mrs. Patricia Birkholz
Director, Office of the Great Lakes
Michigan Department of Environmental Quality
525 West Allegan
P.O. Box 30273
Lansing, Michigan 48909-7773

Dear Patty:

Thank you for your May 9, 2012 request to remove the "Added Costs to Agriculture or Industry" Beneficial Use Impairment (BUI) at the Binational St. Clair River Area of Concern (AOC) in Michigan. As you know, we share your desire to restore all of the Great Lakes AOCs and to formally delist them.

Based upon a review of your submittal and the supporting data, the U.S. Environmental Protection Agency hereby approves your BUI removal request at the St. Clair River Binational AOC. In addition, EPA will notify the International Joint Commission of this significant positive environmental change at this AOC.

We congratulate you and your staff, as well as the many federal, state, international and local partners who have worked so hard and been instrumental in achieving this important environmental improvement. This improvement will benefit not only the people who live and work in the St. Clair River AOC but all the residents of Michigan, Ontario and the Great Lakes basin as well.

We look forward to the continuation of this important and productive relationship with your agency and local coordinating committees as we work together to fully restore all of Michigan's AOCs.

If you have any further questions, please contact me at (312) 353-4891, or your staff may contact John Perrecone, at (312) 353-1149.

Sincerely,

Chris Korleski, Director
Great Lakes National Program Office

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cc: Dan Wyant, Director, MDEQ
Frank Ruswick, MDEQ, Office of Great Lakes
John Riley, MDEQ, Office of Great Lakes
Rick Hobrla, MDEQ, Office of Great Lakes
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STATE OF MICHIGAN
OFFICE OF THE GREAT LAKES
LANSING

RICK SNYDER
GOVERNOR

PATRICIA BIRKHOLZ
DIRECTOR

May 9, 2012

Mr. Chris Korleski, Director
Great Lakes National Program Office
United States Environmental Protection Agency
Region 5
77 West Jackson Boulevard (G-17J)
Chicago, Illinois 60604-3507

Dear Mr. Korleski:

I am writing to request the United States Environmental Protection Agency (U.S. EPA), Great Lakes National Program Office's (GLNPO), concurrence with the removal of the Added Costs to Agriculture or Industry Beneficial Use Impairment (BUI) from the St. Clair River Area of Concern (AOC). The Michigan Department of Environmental Quality (MDEQ), Office of the Great Lakes (OGL) has assessed the status of the BUI in accordance with the state's *Guidance for Delisting Michigan's Great Lakes Areas of Concern*, and recommends that the BUI be removed from the list of impairments in the St. Clair River AOC.

Enclosed, please find documentation to support this recommendation, including the BUI Removal Recommendation document prepared by MDEQ staff and the BUI assessment report. The St. Clair River Binational Public Advisory Council (BPAC) submitted a letter supporting this recommendation, which is included with this package. The proposed BUI removal was public noticed via the Mich-RAP listserv, the MDEQ Calendar, and the MDEQ AOC program web site. No written comments were received in response to the public notice period, which ran from April 23, 2012 to May 7, 2012. The reason for the 15-day public notice period was to accommodate a request by the BPAC to strive for final concurrence in time for a planned Binational announcement scheduled for June 7, in Ontario. Your concurrence in advance of that date would be greatly appreciated by the BPAC.

We value our continuing partnership in the AOC Program and look forward to working with GLNPO in the removal of additional BUIs in the near future. If you need further information concerning this request, please contact Mr. John Riley, OGL, at 517-335-4122, or you may contact me.

Sincerely,

Patricia Birkholz
Director
517-335-4056

Enclosures
cc: Ms. Patty Troy, St. Clair River BPAC
Mr. John Perrecone, U.S. EPA
Mr. Dan Wyant, MDEQ
Mr. Frank Ruswick, OGL
Mr. Richard Hobrla, OGL
Mr. John Riley, OGL

# Removal Recommendation
# Added Costs to Agriculture or Industry Beneficial Use Impairment
# St. Clair River Area of Concern

## Issue

The Michigan Department of Environmental Quality (MDEQ), Office of the Great Lakes, Areas of Concern (AOC) program requests concurrence with this recommendation to remove the Added Costs to Agriculture or Industry Beneficial Use Impairment (BUI) from the St. Clair River AOC. The recommendation is being made with the support of the St. Clair River Binational Public Advisory Council (BPAC), and United States Environmental Protection Agency (US EPA) Great Lakes National Program Office AOC staff. This request is in accordance with the process and criteria set forth in the *Guidance for Delisting Michigan's Great Lakes Areas of Concern* (Guidance) (MDEQ, 2008). A recent assessment (attached to this document) by Environmental Consulting & Technology, Inc. (ECT) demonstrates that the restoration criteria for this BUI have been met and provides the foundation for this recommendation.

## Background

The St. Clair River serves as an international boundary between the United States and Canada and connects Lake Huron to Lake St. Clair. The river flows approximately 40 mi (64 km) in a southerly direction from the outflow of Lake Huron to Lake St. Clair. Prior to entering Lake St. Clair, the river divides into several channels creating an extensive delta known as the St. Clair Delta/St. Clair Flats. The boundary of the St. Clair River AOC includes the entire river from the Bluewater Bridge (connecting Port Huron and Sarnia) to the southern tip of Seaway Island, west to St. John's Marsh and east to include the north shore of Mitchell's Bay on Lake St. Clair in Ontario (OMOE and MDNR, 1991).

On the US side of the AOC, Akzo Salt (now Cargill), a food grade salt processor, temporarily shut down its water intake from the St. Clair River due to a spill in 1989 resulting in additional costs to the company, according to the Stage 1 Remedial Action Plan (RAP). This was the basis for listing the Added Costs to Agriculture or Industry BUI in the St. Clair River AOC (OMOE and MDNR, 1991).

## Removal Criteria

According to the *Guidance,* the current restoration target for this BUI, as adopted in the 1995 Stage 2 RAP, is:

- No plant shutdowns attributable to water quality over a 2 year period.
- No added costs for the disposal of contaminated sediments.

## Assessment Results

ECT completed the *St. Clair River Area of Concern Assessment of the Added Cost to Agriculture or Industry BUI Report* (ECT, 2012) in cooperation with the Friends of the St. Clair River Watershed. The report examines only the US side of the AOC. Its findings were that no plant shutdowns attributable to water quality issues occurred over a two-year period, and that there were no added costs to agriculture or industry for the disposal of contaminated sediments. The full report, documenting the assessment methodology and results, is attached to this document.

**Recommendation**

Based upon review of the assessment findings, and with the input of the BPAC and EPA and MDEQ staff, removal of the Added Costs to Agriculture or Industry BUI from the St. Clair River AOC is recommended. The assessment was shared and discussed with the St. Clair River BPAC on March 29, 2012. The BPAC submitted a formal letter of support for removal of the BUI dated April 9, 2012.

This proposed action was public noticed for 15 days via posting to the Mich-RAP listserv and listing in the MDEQ Calendar. Supporting documents were posted on the MDEQ's AOC program web page for public review and comment from April 23 through May 7, 2012. No written comments were received during that time, other than an expression of support for the removal from the US EPA.

**References**

ECT Environmental Consulting & Technology, Inc. 2012. St. Clair River Area of Concern Assessment of the Added Cost to Agriculture or Industry BUI Report. March 29, 2012.

Michigan Department of Environmental Quality. 2008. *Guidance for Delisting Michigan's Great Lakes Areas of Concern,* revised. MI/DEQ/WB-06/001.

Ontario Ministry of the Environment and Michigan Department of Natural Resources. 1991. The St. Clair River Area of Concern Environmental Conditions and Problem Definitions, Stage 1 Remedial Action Plan.

Prepared by: John Riley, AOC Coordinator
Great Lakes Management Unit
Office of the Great Lakes
Michigan Department of Environmental Quality
May 9, 2012

# ST. CLAIR RIVER AREA OF CONCERN ASSESSMENT OF THE ADDED COST TO AGRICULTURE OR INDUSTRY BUI REPORT

***Prepared for:*** Friends of the St. Clair River Watershed

***Prepared by:***

ECT
Environmental Consulting & Technology, Inc.
2200 Commonwealth Blvd. Suite 300
Ann Arbor, MI 48105

***March 29, 2012***

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# 1.0 INTRODUCTION

The Stage 1 RAP (OMEE and MDNR, 1992) identified *Added Cost to Agriculture or Industry* as an impaired Beneficial Use (BU) in the St. Clair River Area of Concern (AOC). Within the U.S. portion of the AOC, one specific reason for listing this BU as impaired was the shutdown of the Akzo Salt (now Cargill) water intake due to a spill in February of 1989. This temporary shutdown resulted in additional costs to the company.

In 1997, although the RAP Implementation Annex (Ontario Ministry of the Environment, 1998) recommended that the status of this BU be changed from "impaired" to "not impaired" because there had been no water treatment plant closures or associated interruptions in water supply to industrial users between 1994 and 1997, no such action was taken. Lastly, the 2005 RAP Progress report (Environment Canada, 2005) further noted that the Beneficial Use Impairment (BUI) also requires current review based on recent chemical spills to the St. Clair River.

According to the Michigan Department of Environmental Quality's Guidance for Delisting (MDEQ 2008):

*This BUI will be considered restored when the locally-derived restoration target for this BUI, approved by the Four-Agency Management Committee, which oversees shared U.S. and Canadian AOCs, is met. The current target for this BUI, as adopted in the 1995 Stage 2 RAP, is:*

- *No plant shutdowns attributable to water quality over a 2-year period.*
- *No added costs for the disposal of contaminated sediments.*

In order to assess the current status of this BUI, water intake permit holders were identified and solicited to complete a quick survey to determine if any plants had experienced shutdowns within the last two years and/or any added costs associated with disposal of sediments.

# 2.0 METHOD OF ASSESSMENT

The Michigan Department of Environmental Quality (MDEQ)'s Water Use Program provided a list of all large quantity withdraws (over 70 gallons per minute) from the U.S. side of the St. Clair River, including industrial and municipal users (Table 1).

**Table 1: Facilities with Permitted Water Withdraws**

| TYPE | FACILITY NAME |
|---|---|
| Industrial | DTE – St. Clair Power Plant |
| | DTE – Belle River Power Plant |
| | DTE – Marysville Power Plant |
| | Cargill, Inc. |
| | Dunn Paper Inc. |
| | E. B. Eddy Paper Inc. (now Domtar) |
| Municipal | Algonac Water Filtration Plant |
| | East China Water Treatment Plant |
| | Marine City Water Treatment Plant |
| | Marysville Water Treatment Plant |
| | Port Huron Water Filtration Plant |
| | St. Clair Water Treatment Plant |

Two distinct surveys were developed to solicit information from industrial and municipal facilities as additional information collected from municipal facilities could be utilized in evaluation of the *Restrictions on Drinking Water* BUI. Blank surveys are provided in Appendix A. Facilities were contacted via phone to identify appropriate contact personnel and surveys were distributed via email and/or facsimile. Responders were able to complete the survey via an online web survey or by filling out a form and returning via email or facsimile. Follow-up calls and emails were conducted for three months until all of the surveys were returned.

## 3.0 DISCUSSION

Surveys from industrial and municipal facilities were reviewed in the context of the *Added Cost to Agriculture or Industry* and *Restrictions on Drinking Water* BUIs. Key findings are detailed below.

### 3.1 INDUSTRIAL FACILITIES

Six industrial facilities have active permits for large quantity water withdraws on the U.S. side of the St. Clair River, including three power plants, two paper manufacturing facilities and one salt production facility. It should be noted that the Marysville Power Plant was permanently shut down in 2011. The survey response for this facility reflects the fact that there is no longer an active water withdraw at this location and is therefore not included in the discussion of survey responses below.

The survey asked industrial facilities to describe how water from the St. Clair River was used and if the facility had specific requirements for the quality of water used. Table 2 summarizes the responses to these questions.

**Table 2: Industrial Survey Responses**

| FACILITY | WATER USE | WATER QUALITY REQUIREMENTS |
|---|---|---|
| Belle River Power Plant (DTE) | Non-contact cooling water & general service water | Yes |
| St. Clair Power Plant (DTE) | Non-contact cooling water & general service water | Yes |
| Cargill, Inc. | Cooling water & source water | No |
| Dunn Paper, Inc. | Process & cooling water | Yes |
| Domtar (formerly EB Eddy Paper) | Process water | Yes |

As Cargill, Inc. indicated that there are no specific requirements for quality of the water used from the St. Clair River, the remaining survey questions were not applicable. Without specific standards for the quality of water used, there is no associated “added cost” to their facility for use of water from the St. Clair River.

Facilities that answered “yes” to the question about “whether or not the facility had requirements for the quality of water used” were asked a series of questions pertaining to the treatment of water used. The two power plant facilities (Belle River & St. Clair) indicated that some of the water from the St. Clair River is treated prior to use while the paper production facilities (Dunn Paper & Domtar) indicated that all water from river is treated prior to use. All four facilities indicated that the level of treatment required for water withdrawn from the St. Clair River was **not** above and beyond what is typically required for a surface water intake.

Facilities were then asked if water treatment activities required sediment disposal. All four facilities indicated sediment disposal was required and were prompted to respond to additional questions concerning the costs of disposal. The two power plant facilities (Belle River & St. Clair) indicated that they did **not** pay for sediment disposal. The paper production facilities (Dunn Paper & Domtar) indicated that they did pay for sediment disposal but costs were **not** above and beyond what is typically required for sediment disposal.

Therefore, no U.S. industrial facilities experience additional costs associated with water use from the St. Clair River.

The last portion of the survey asked if the facility ever suspended processes due to the quality of water in the St. Clair River. Responses are detailed in Table 3.

**Table 3: Industrial Survey Responses**

| FACILITY | HAS THE FACILITY SHUT DOWN DUE TO WATER QUALITY? | COMMENT |
|---|---|---|
| Belle River Power Plant (DTE) | No | - |
| St. Clair Power Plant (DTE) | No | - |
| Cargill, Inc. | No | - |
| Dunn Paper, Inc. | No | We have the ability to use City water in times of high turbidity |
| Domtar (formerly EB Eddy Paper) | No | If sediment loading is too great for our filtering, we can switch over and purchase water from the City of Port Huron |

Therefore, no plant shut-downs associated with water quality have occurred over the past 2 years.

### 3.2 MUNICIPAL FACILITIES

Although the current delisting target for the *Added Cost to Agriculture or Industry* BUI does not include "no interruption in water supply to industrial facilities" as a specific requirement, it was identified in the 1997 RAP Implementation Annex as a contributing factor. Additionally, the industrial surveys confirmed that two of the U.S. industrial facilities on the St. Clair River have the ability to use municipal water if the sediment loading or turbidity of the river water is too high.

Six municipal water treatment facilities have intakes on the U.S. side of the St. Clair River (Table 1). Each facility confirmed that there has not been an exceedence of potable and palatable water quality standards, post treatment, within the last two years. While all six of the municipal facilities indicated at least one historic closure due to water quality in the St. Clair River (due to chemical spills and/or CSOs), they all noted that the closure did not result in any interruption in service or loss of pressure in the distribution system. Therefore, there has been no disruption of water supply to industrial facilities associated with water quality in the St. Clair River.

## 4.0 SUMMARY AND CONCLUSIONS

The results of the industrial and municipal survey support changing the status of the *Added Cost to Agriculture or Industry* BUI from impaired to unimpaired. Industrial survey responders confirmed:

- *No plant shutdowns attributable to water quality over a 2-year period, and*
- *No added costs for the disposal of contaminated sediments.*

In addition to explicitly meeting the current delisting target for this BUI, the municipal survey responders confirmed no interruption in water service to industrial facilities associated with water quality in the St. Clair River.

## REFERENCES


Environment Canada. 2005. *St. Clair River RAP Progress Report. Volume 1-Synthesis Report: Environmental Conditions and Implementation Actions (1998-2003).*

Michigan Department of Environmental Quality (MDEQ). 2008. *Guidance for Delisting Michigan's Great Lakes Areas of Concern*. Compiled January 2006 by Water Bureau & Office of the Great Lakes. Updated 2008 by Water Bureau.

Ontario Ministry of the Environment (OMEE). 1998. *St. Clair River Area of Concern: Implementation Annex 1997*. February 1998. Revised November 1998.

Ontario Ministry of the Environment (OMEE) & Michigan Department of Natural Resources (MDNR). 1992. *The St. Clair River Area of Concern Environmental Conditions and Problems Definitions: Remedial Action Plan Stage 1.*