



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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September 29, 2011

Mr. John Perrecone, RAP/AOC Program Manager
Great Lakes National Program Office
United States Environmental Protection Agency, Region 5
77 West Jackson Blvd.
Chicago, IL 60604

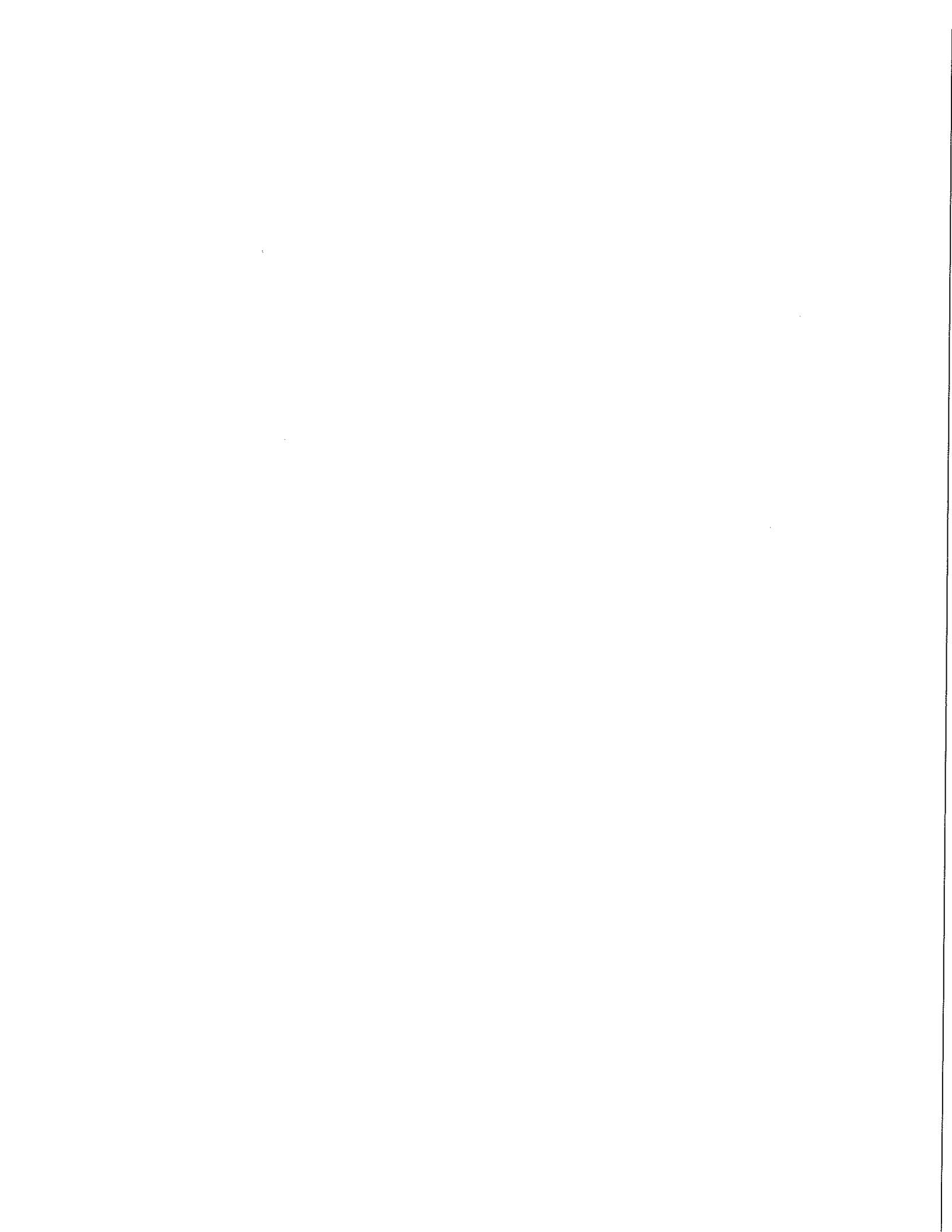
Dear John,

On behalf of Indiana Department of Environmental Management Commissioner, Thomas Easterly, I am pleased to submit to you the attached recommendation to remove the "Added Cost to Agriculture & Industry" Beneficial Use Impairment (BUI) from the Grand Calumet River/Indiana Harbor Ship Canal Area of Concern (AOC). For the reasons set forth in the attached document, we respectfully request that you accept the recommendation and remove the aforementioned BUI from our AOC.

Please let me know if you have any questions. Thank you.

Sincerely,

Hala Kuss, Director
Northwest Regional Office
Indiana Department of Environmental Management





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Recommendation to U.S. EPA to remove the “Added Cost to Agriculture or Industry” Beneficial Use Impairment from the Grand Calumet River/Indiana Harbor Ship Canal Area of Concern

Overview

The Grand Calumet River/Indiana Harbor Ship Canal Area of Concern (AOC) lists “added costs to agriculture or industry” as one of 14 beneficial use impairments (BUI). This BUI, as outlined in the Great Lakes Water Quality Agreement, is related to water treatment by agriculture and industry prior to use due to poor quality. The target for removal of this BUI in the Grand Calumet River/Indiana Harbor Ship Canal AOC initially focused on increased shipping costs due to light loading of barges caused by high levels of sedimentation in the river. However, the International Joint Commission (IJC) intended this BUI to focus on increased costs for treating water for industrial and agricultural uses. Therefore, IDEM, with support from its CARE committee and concurrence from U.S. EPA, revised the target to focus on whether there are additional costs to agriculture and industry arising from water quality issues.

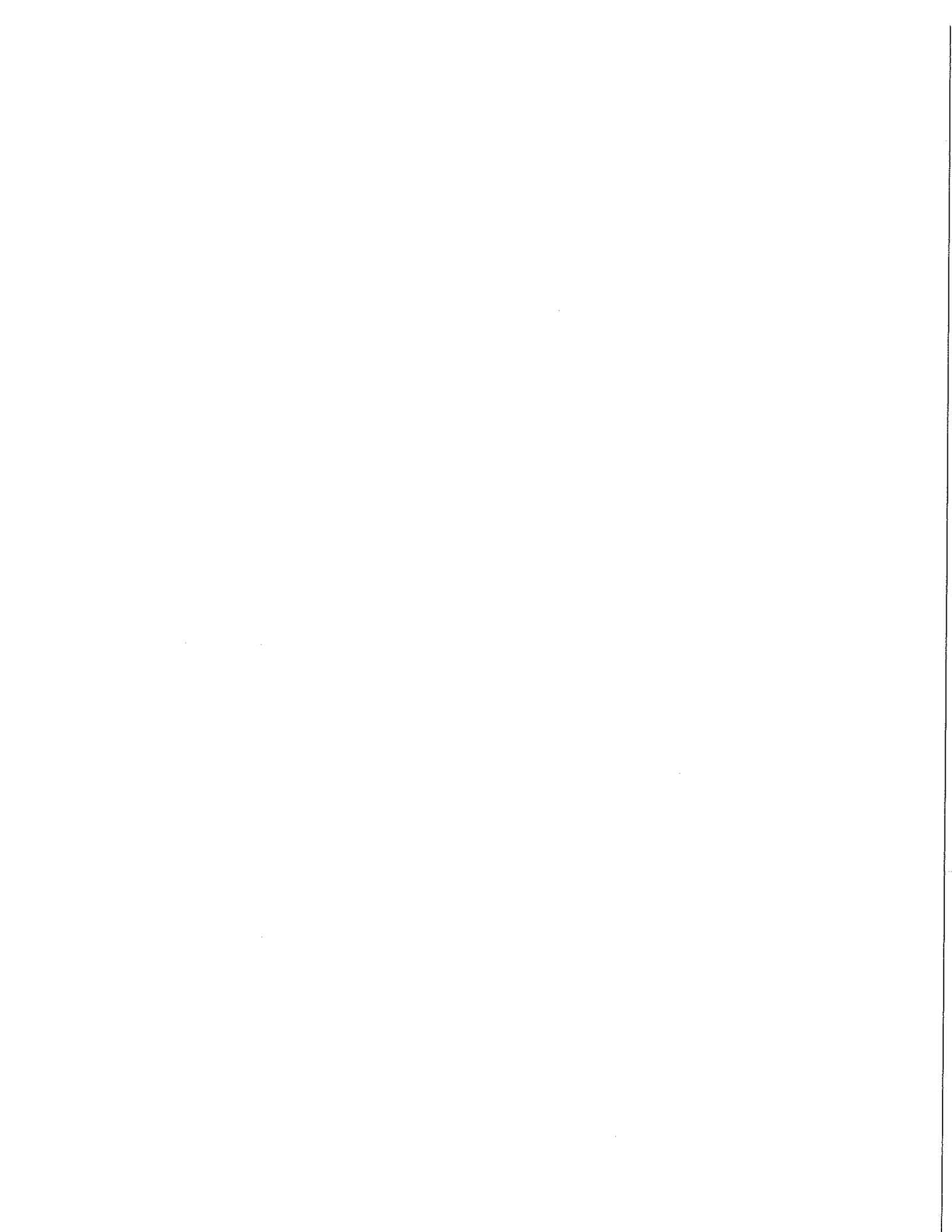
In reviewing this beneficial use in light of the revised target, it is evident that this beneficial use is not impaired because industrial and energy production water users are not required to treat the water prior to use. Given these facts, the BUI should be removed from the BUI list for the Grand Calumet River/Indiana Harbor Ship Canal Area of Concern.

Background

Annex 2 of the Great Lakes Water Quality Agreement defines “impairment of beneficial use” as “a change in the chemical, physical, or biological integrity of the Great Lakes system sufficient to cause any of the 14 use impairments or other related uses covered by Article IV such as the microbial objective for waters used for body contact recreational activities.”¹

The Grand Calumet River Area/Indiana Harbor Ship Canal Area of Concern lists “added costs to agriculture or industry” as one of 14 beneficial use impairments. Per the IJC, this BUI was intended to be used:

¹ Beneficial Use Impairments web page, International Joint Commission
<http://www.ijc.org/rel/boards/annex2/buis.htm>



*"When there are additional costs required to treat the water prior to use for agricultural purposes (i.e. including, but not limited to, livestock watering, irrigation and crop-spraying) or industrial purposes (i.e. intended for commercial or industrial applications and noncontact food processing)."*²

According to the IJC guidelines, the BUI could be removed:

"When there are no additional costs required to treat the water prior to use for agricultural purposes (i.e. including, but not limited to, livestock watering, irrigation and crop-spraying) and industrial purposes (i.e. intended for commercial or industrial applications and noncontact food processing)."

As adopted by the Indiana Department of Environmental Management, the target for the removal of this BUI is as follows:

"No additional costs (due to human activities within the AOC) are necessary to treat water from the AOC prior to agricultural, commercial or industrial use."

Discussion of Added Costs Due to Water Quality at Water Withdrawals Facilities in the Grand Calumet River/Indiana Harbor Ship Canal AOC

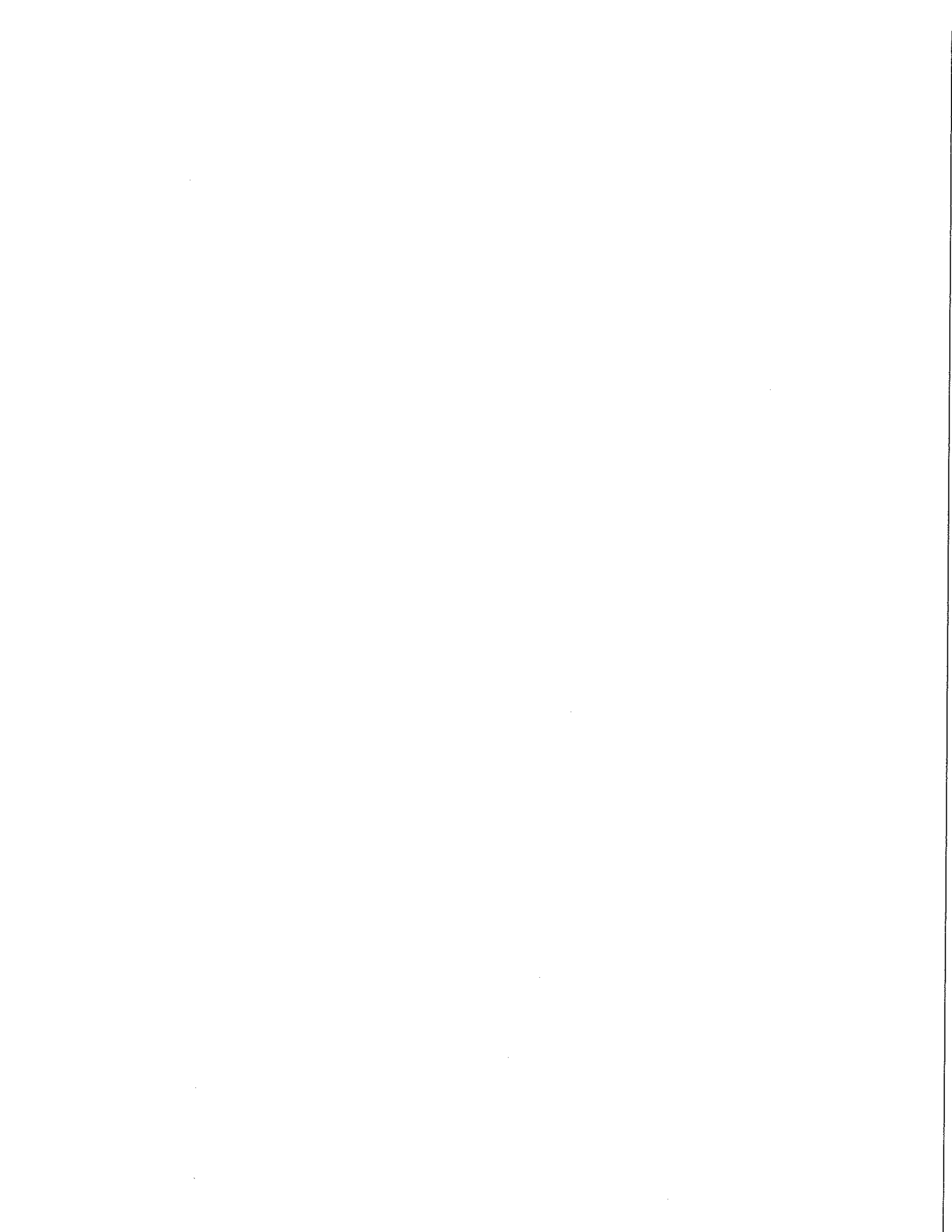
All significant water withdrawals within the State of Indiana must be registered with the Indiana Department of Natural Resources (IDNR). There are currently 26 intake registrations within the Grand Calumet River Area of Concern (See Table 1). The IDNR describes the requirements for registration under state statute:

*"With the enactment of Indiana's Water Resource Management Act (IC 14-25-7) by the 1982 Indiana General Assembly, owners of significant water withdrawal facilities are required to register with the DNR and report water use on an annual basis. A "significant water withdrawal facility," (SWWF), is defined in the statute to mean "the water withdrawal facilities of a person that, in the aggregate from all sources and by all methods, has the capability of withdrawing more than 100,000 gallons of ground water, surface water, or ground and surface water combined in one (1) day." Water use data were first submitted to the DNR for the calendar year 1985. The Water Rights and Use Section currently maintains records (in paper and digital form) of approximately 3,610 active SWWFs, representing about 6,325 ground-water wells and 1,385 surface water intakes. These records include the original registration form, location map, and annual water use report(s) for each facility."*³

Of the 26 registered water withdrawal facilities, 8 are for public supply, 17 are for industrial use, 4 are for energy production, and 1 is miscellaneous. Industrial use is defined as "process water, cooling water, mineral extraction (except coal), quarry dewatering, waste assimilation," energy production is defined as "Power generation, cooling water, coal mining, geothermal, oil recovery," and miscellaneous defined as "Fire

² Beneficial Use Impairments Table, International Joint Commission
<http://www.ijc.org/rel/boards/annex2/buis.htm#table1>

³ Indiana Department of Natural Resources Significant Water Withdrawal Facility Data webpage,
<http://www.in.gov/dnr/water/4841.htm>,



protection, amusement parks, construction dewatering, dust control, pollution abatement, hydrostatic testing, recreational field drainage.”⁴ Public supply water withdrawals are not considered under this BUI. They are considered within the Restrictions on Drinking Water where “treatment needed to make raw water suitable for drinking is beyond the standard treatment used in comparable portions of the Great Lakes which are not degraded.”⁵

While these entities are required to have NPDES permits for their treated wastewater, there is no requirement for industrial, electric power, or miscellaneous environmental permitting prior to use. Furthermore, there is no increased cost to the users of this water prior to use.

“Drinking water, wastewater, storm water and wetlands are managed through IDEM’s permitting program. If your place of business provides drinking water; if you’re planning new or improved drinking water or wastewater service for your customers; if you treat or process wastewater; if you are responsible for controlling storm water run-off at your work site, place of business or in your community; or if you have project plans that involve working in water or wetlands, you may need a permit from IDEM’s Office of Water Quality. Please visit the links here to learn about the various water permit programs we manage and contact our staff to discuss specific requirements. Working with IDEM to obtain the correct permit will help you stay in compliance with environmental regulations. Failing to apply for an IDEM permit or operating without the correct type of permit are violations.”⁶

Kay Nelson, Director of Environmental Affairs for the Northwest Indiana Forum and a CARE Committee member, spoke with representatives of all of the affected facilities regarding their water treatment prior to use. None of the facilities find it necessary to pre-treat the water prior to use to improve quality.

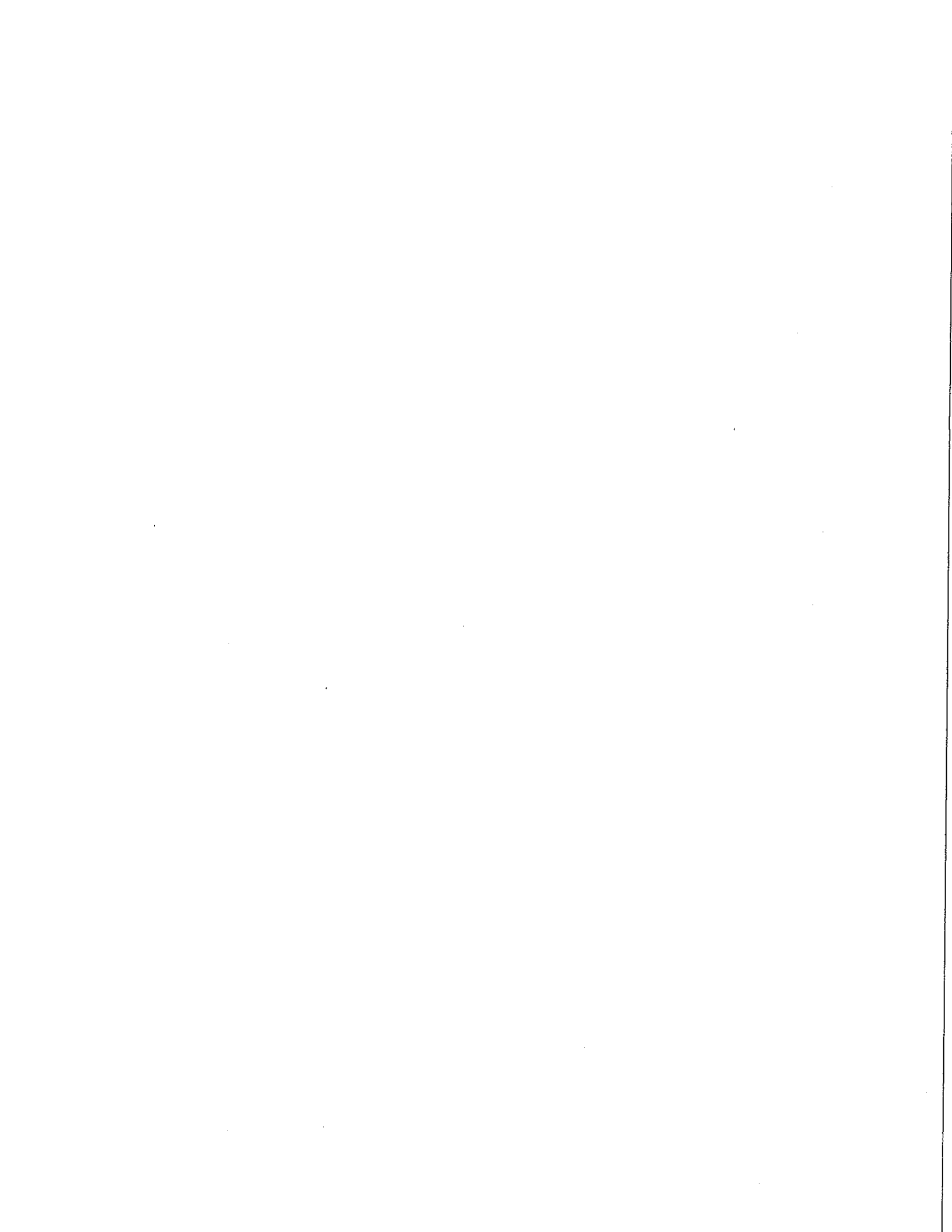
Table 1 Water Withdrawal Intakes within the Grand Calumet Area of Concern

Water Use	FACILITY	SOURCE	WATERBODY
Public Supply	East Chicago Water Department	INTAKE	Lake Michigan
Public Supply	Indiana-American Water Co, Inc	INTAKE	Lake Michigan
Public Supply	Hammond Water Works	INTAKE	Lake Michigan
Public Supply	Hammond Water Works	INTAKE	Lake Michigan
Misc	US Gypsum Company	INTAKE	Indiana Harbor Can

⁴ Indiana Department of Natural Resources, “Metadata Fields Explanation, XX-Fac.dbf,” <http://www.in.gov/dnr/water/files/metadata-wu.pdf>.

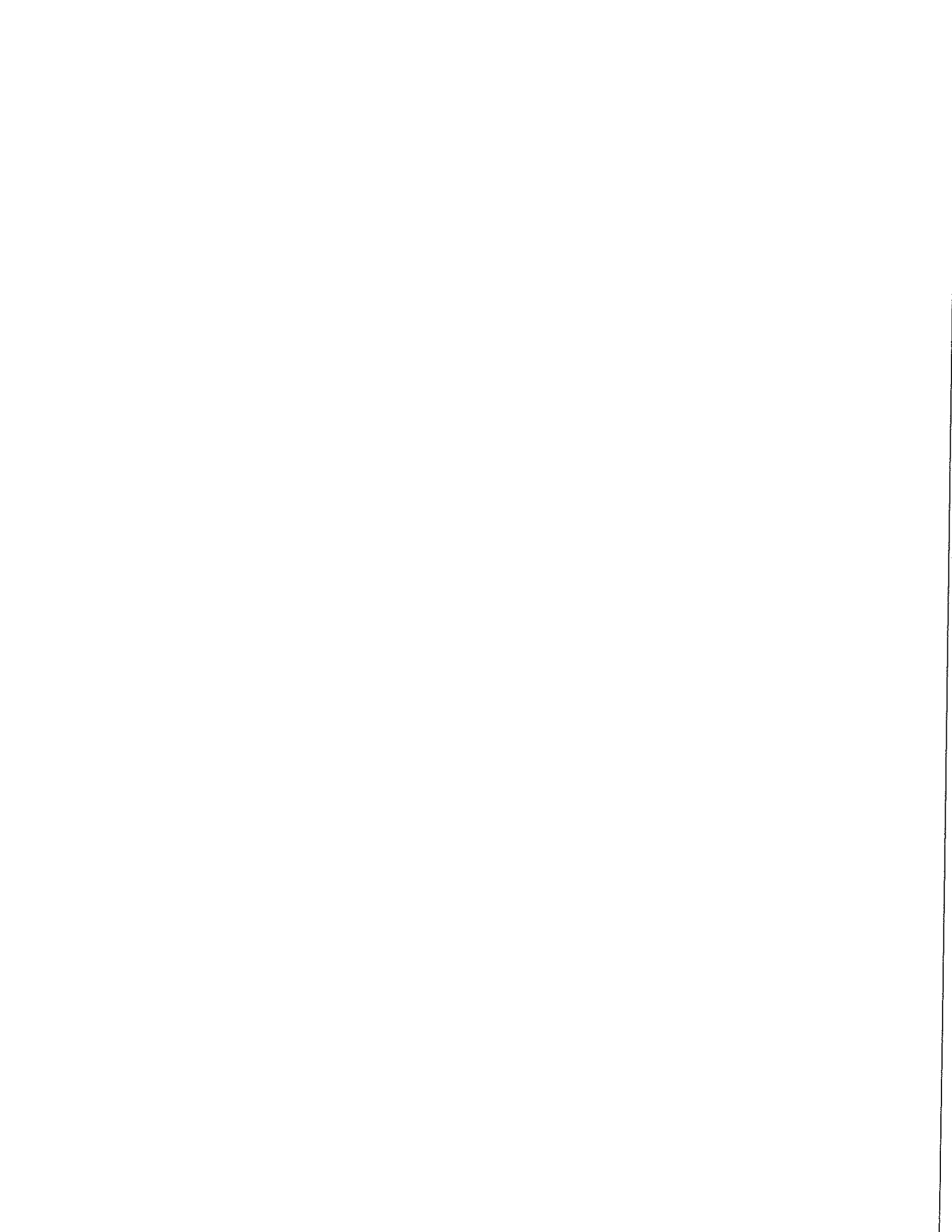
⁵ Beneficial Use Impairments Table, International Joint Commission, <http://www.ijc.org/rel/boards/annex2/buis.htm#table1>

⁶ Indiana Department of Environmental Management Water Permits webpage, <http://www.in.gov/idem/4221.htm>, Accessed August 9, 2011.



Water Use	FACILITY	SOURCE	WATERBODY
Industrial	US Steel Corporation	INTAKE	Lake Michigan
Industrial	US Steel Corporation	INTAKE	Lake Michigan
Industrial	US Steel Corporation	INTAKE	Lake Michigan
Industrial	US Steel Corporation	INTAKE	Lake Michigan
Industrial	US Steel Corporation	INTAKE	Lake Michigan
Industrial	Carmeuse Lime Incorporated	INTAKE	Lake Michigan
Industrial	ArcelorMittal	INTAKE	Indiana Harbor Can
Industrial	ArcelorMittal	INTAKE	Indiana Harbor Can
Industrial	ArcelorMittal	INTAKE	Indiana Harbor Can
Industrial	ArcelorMittal	INTAKE	Indiana Harbor Can
Energy Production	ExxonMobil Hammond Terminal	INTAKE	Lake George Canal
Energy Production	NiSource	INTAKE	Lake Michigan
Energy Production	State Line Energy LLC	INTAKE	Lake Michigan
Industrial	BP Products North America Incorporated	INTAKE	Lake Michigan
Industrial	BP Products North America Incorporated	INTAKE	Lake Michigan
Energy Production	BP Products North America Incorporated	INTAKE	Indiana Harbor Can
Industrial	Cargill Incorporated	INTAKE	Lake Michigan
Industrial	Unilever	INTAKE	Lake Michigan
Industrial	Cargill Incorporated	INTAKE	Wolf Lake
Industrial	ArcelorMittal	INTAKE	Lake Michigan
Industrial	ArcelorMittal	INTAKE	Lake Michigan

Public water supplies are not subject to this BUI. They would be covered under the drinking water restrictions BUI. In any case, the public water supply treatment facilities for East Chicago, Hammond, and Indiana-American Northwest do not have to treat influent water differently or to a greater extent than do other public water supply systems in the Great Lakes region near the Grand Calumet River AOC, and thus have no added costs under this BUI.



Public Engagement

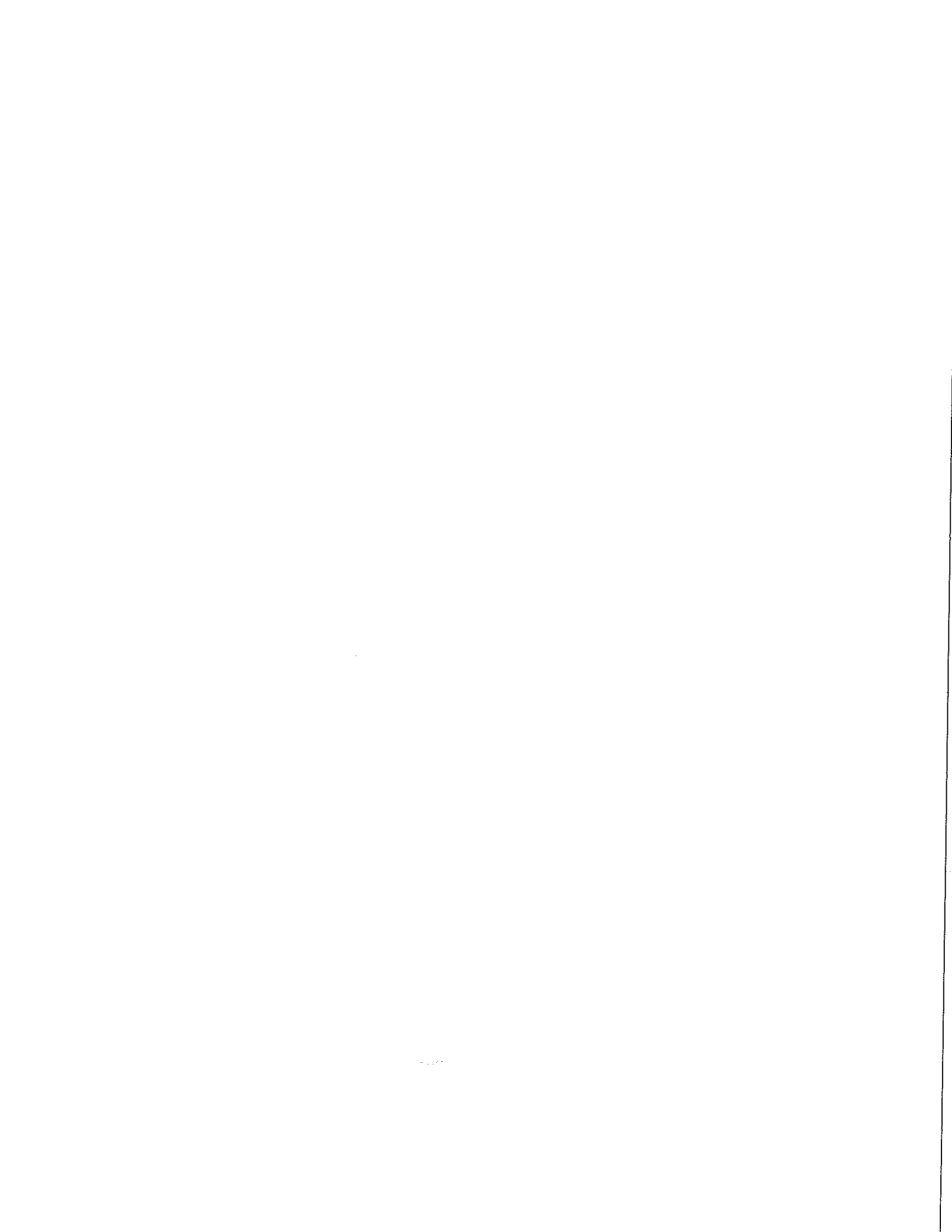
The members of the CARE Committee were provided with an opportunity to review and comment on the BUI removal justification, and all comments received from CARE Committee members were addressed. Additionally, removal of this BUI was discussed at the August 23, 2011 CARE Committee meeting. The CARE Committee voted unanimously to recommend to IDEM Commissioner Thomas Easterly that he seek EPA approval for removal of this BUI based on the foregoing justification. (See the attached CARE Committee meeting summary and the list of meeting attendees).

IDEM disseminated the Proposed BUI Removal Recommendation for public comment by posting it in "Public Notices" page of the IDEM website and by sending it to the individuals that are on the Northwest Indiana Regional Planning Commission Environmental Management Policy Committee e-mail distribution list. IDEM accepted public comment for a 15 day period, beginning on Friday, September 9, 2011 and ending at 10:00 am (Central Standard Daylight Savings Time) on Monday, September 26, 2011. The only comment received was a letter of support for removal of the BUI submitted by the United States Department of the Interior, Fish and Wildlife Service (see attached).

No public meeting was requested.

Recommendation

For the foregoing reasons, IDEM recommends that U.S. EPA remove the "Added Cost to Agriculture or Industry" BUI from the list of impairments for the Grand Calumet River/Indiana Harbor Ship Canal Area of Concern.



CARE Committee Meeting Summary

Meeting Date: August 23, 2011

Meeting Time: 3:00 pm

Meeting Location: IDEM, Northwest Regional Office

Meeting Attendees:

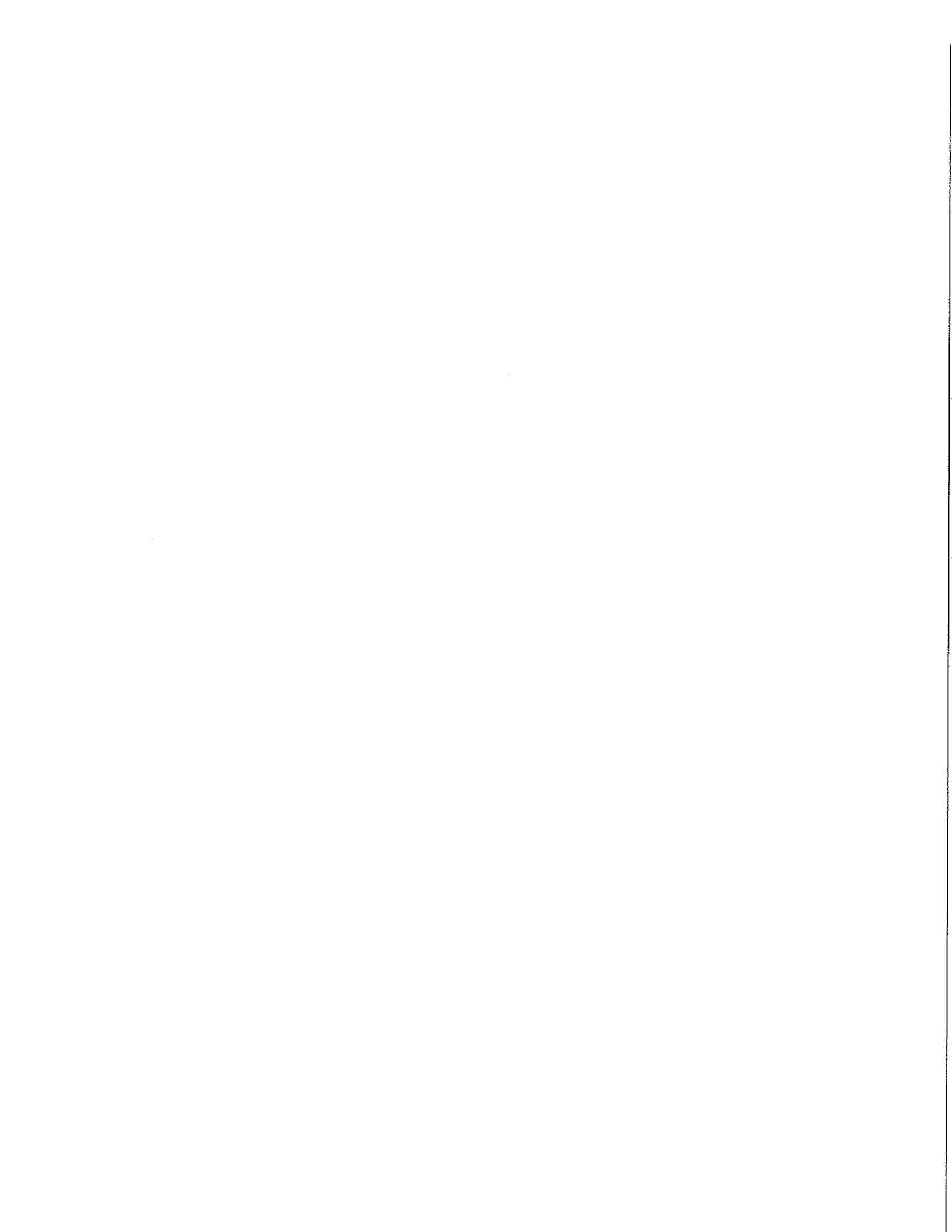
In person: Tom Barnett, Simonne Benoit, Michelle Caldwell, John Fekete, Anne Kominowski, Hala Kuss, Mike Molnar, Dan Sparks, Jim Smith, Jeff Edstrom

By telephone: Kris Krouse, Kay Nelson, John Perrecone, Dan Plath

Meeting Summary:

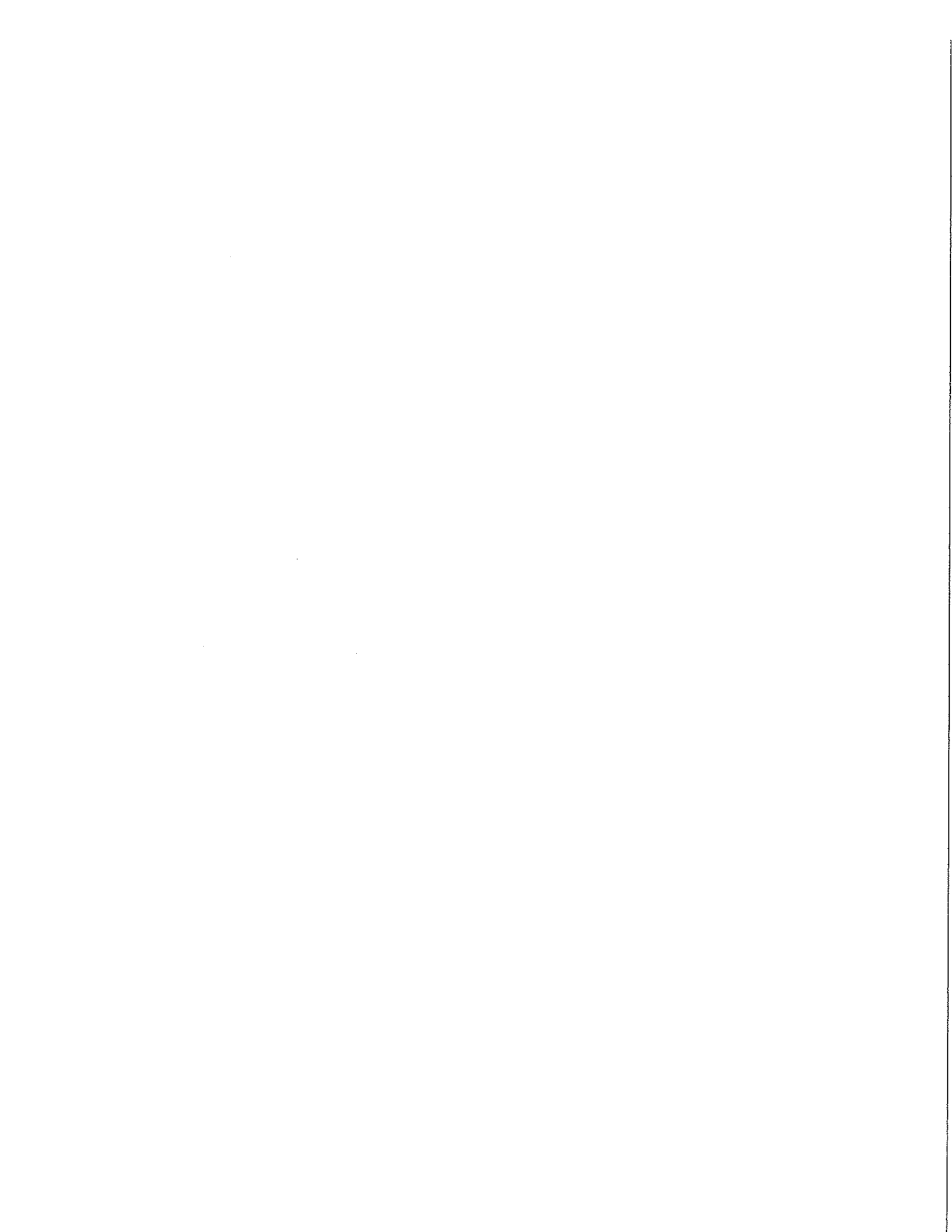
The primary topics of discussion were the memoranda prepared by U.S. EPA contractor, Jeff Edstrom, of ECT, justifying the removal of the "Added Cost to Agriculture & Industry" beneficial use impairment and the "Drinking Water Consumption- Taste & Odor" beneficial use impairment from the Grand Calumet River/Indiana Harbor Ship Canal Area of Concern. The memoranda had been sent electronically to all CARE committee members for review and comment, so all meeting participants had an opportunity to review the memoranda prior to the meeting. Jeff Edstrom walked the meeting attendees through the justifications. All meeting participants were in agreement that the justifications were sound, and that the CARE Committee should recommend to IDEM Commissioner, Thomas Easterly, that IDEM move forward with requesting that U.S. EPA remove the two beneficial use impairments from the Grand Calumet River/Indiana Harbor Ship Canal Area of Concern.

Also presented at the meeting was an overview of the data management system developed by Jeff Edstrom.



CARE Workgroup Meeting August 23, 2011

Signature	Name	Organization	Phone
<i>Tom Barnett</i>	Tom Barnett	IDEM	219.757.0277
<i>Simonne Benoit</i>	Simonne Benoit	Arceion/Mittal	219.391.2380
<i>Michelle Caldwell</i>	Michelle Caldwell	Arceion/Mittal	219.391.2109
<i>Dorreen Carey</i>	Dorreen Carey	IDEM	219.757.0283
<i>John Fekete</i>	John Fekete	City of Gary	219.882-3000
<i>Daniel Goldfarb</i>	Daniel Goldfarb	CARE	219.972.3514
<i>Colin Highlands</i>	Colin Highlands	Wildlife Habitat Council	219.762.4571
<i>Nicole Kamins-Barker</i>	Nicole Kamins-Barker	IDNR	219.921.0863
<i>Anne Kominowski</i>	Anne Kominowski	Save the Dunes	219.879.3937
<i>Kris Krouse</i>	Kris Krouse	IDEM	317.233.0447
<i>Hala Kuss</i>	Hala Kuss	Shirley Heinze Land Trust	219.879.4725
<i>Paul Labus</i>	Paul Labus	IDEM	219.757.0273
<i>Eric Neagu</i>	Eric Neagu	The Nature Conservancy	219.981.9163
<i>Kay Nelson</i>	Kay Nelson	Save the Dunes	312.922.1030
<i>Derek Nimeiz</i>	Derek Nimeiz	NWI Forum	219.763.6303
<i>Deborah Millisap</i>	Deborah Millisap	IDNR	219.928.3997
<i>Mike Molnar</i>	Mike Molnar	USFWS	
<i>John Perrecone</i>	John Perrecone	USFWS	317.233.0132
<i>Dan Plath</i>	Dan Plath	US EPA	312.353.1149
<i>Dr. Mark Reshkin</i>	Dr. Mark Reshkin	NISource	
<i>Dan Sparks</i>	Dan Sparks	IUN Professor Emeritus	219.462.4063
<i>Jim Smith</i>	Jim Smith	USFWS	312.334.4261 x1-219
<i>Ellen Szarfeta</i>	Ellen Szarfeta	IDEM	317.232.3451
<i>Carl Woodrich</i>	Carl Woodrich	IUN	219.980.6696
<i>Jeff Gibson</i>	Jeff Gibson	IDNR	317.232.1291
		<i>ECT</i>	<i>773.484.0254</i>





United States Department of the Interior

Fish and Wildlife Service

Bloomington Field Office (ES)
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273



September 20, 2011

Hala Kuss, Director
Northwest Regional Office
Indiana Department of Environmental Management
8380 Louisiana Street
Merrillville, Indiana 46410

Dear Ms. Kuss:

This regards IDEM's proposal to recommend that U.S. EPA remove the "Added Cost to Agriculture or Industry" beneficial use impairment (BUI) number 12 on the list of impairments for the Grand Calumet River/Indiana Harbor Ship Canal (GCR/IHC) Area of Concern (AOC).

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U.S. Fish and Wildlife Service's Mitigation Policy.

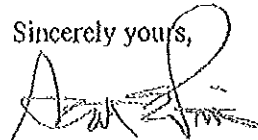
We concur with IDEM that this BUI no longer applies to the GCR/IHC AOC. Along these same lines of analyses conduct to make this determination, we would like to also highlight some additional analysis pertaining to BUI-9 "Restrictions on Drinking Water Consumption or Taste and Odor Problems."

As you state in your analysis to delist BUI-12, "Public water supplies are not subject to this BUI. They would be covered under the drinking water restrictions BUI (BUI-9). In any case, the public water supply treatment facilities for East Chicago, Hammond, and Indiana-American Northwest do not have to treat influent water differently or to a greater extent than do other public water supply systems in the Great Lakes region near the Grand Calumet River AOC, and thus have no added costs under this BUI." For this reason alone, BUI-9 could also be proposed for delisting. We enclose a review of the history of surface water contamination as it relates to drinking water impairments that we prepared 15 years ago for this AOC. The historical facts confirm that drinking water intakes in Lake Michigan were adversely impacted by this AOC in the 1960s and 1970s. These facts may have been sufficient to justify including this BUI when the GCR/IHC AOC was first designated. However, this AOC has made significant improvements since the 1960s and BUI-9 is no longer needed.



It is our hope that this information will help in your future efforts to delist BUI-9 as we continue to make progress in restoring the GCR/IHC. For further discussion, please contact Dan Sparks of my staff at (812) 334-4261 ext. 1219.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Scott E. Pruitt', with a large, stylized flourish extending from the end of the signature.

Scott E. Pruitt
Field Supervisor

