BEFORE THE ILLINOIS POLLUTION CONTROL BOARD								
IN TH	HE MATTER OF:	)						
EFFL CHIC AND PROF	ER QUALITY STANDARDS AND UENT LIMITATIONS FOR THE CAGO AREA WATERWAY SYSTEM THE LOWER DES PLAILNES RIVE POSED AMENDMENTS TO 35 Ill. Code Parts 301, 302, 303 and 304	,	R08-9 (Rulemaking – Water)					
	NOTI	CE OF FILI	<u>NG</u>					
TO:	: John Therriault, Assistant Clerk Illinois Pollution Control Board James R. Thompson Center 100 West Randolph Street, Suite 11-500 Chicago, IL 60601							
PLEASE TAKE NOTICE that I have filed today with the Illinois Pollution Control Board Midwest Generation L.L.C.'S Response to Motion for a Hearing on the Impact of the Litigation Before the United States Supreme Court Relating to the Migration of Asian Carp Through the Chicago Sanitary and Ship Canal, copy of which is herewith served upon you.								
Dated	l: January 21, 2010							
		MIDWEST	GENERATION, L.L.C.  un M. Kruff Susan M. Franzetti					
NIJM 10 So Chica	M. Franzetti IAN FRANZETTI LLP Buth LaSalle Street, Suite 3600 ago, IL 60603							

#### **SERVICE LIST R08-09**

Marie Tipsord, Hearing Officer Illinois Pollution Control Board 100 West Randolph St Suite 11-500

Chicago, IL 60601

Frederick Feldman

Ronald Hill Louis Kollias Margaret Conway

Metropolitan Water Reclamation District

100 East Erie St Chicago, IL 60611

Roy Harsch

Drinker Biddle & Reath LLP

191 N. Wacker Dr.

**Suite 3700** 

Chicago, IL 60606-1698

Claire Manning

Brown Hay & Stephens LLP 700 First Mercantile Bank Bldg

205 S. Fifth St

Springfield, IL 62705-2459

Katherine Hodge Monica Rios

Hodge Dwyer Zeman 3150 Roland Avenue

Springfield, IL 62705-5776

Charles Wesselhoft

James Harrington Ross & Hardies

150 N. Michigan Ave

Chicago, IL 60601-7567

Robert VanGyseghem

City of Geneva 1800 South St

Geneva, IL 60134-2203

Deborah J. Williams Stefanie N. Diers

Illinois EPA

1021 North Grand Avenue Springfield, IL 62794-9276

Keith Harley

Elizabeth Schenkier

Chicago Legal Clinic, Inc. 205 West Monroe Street

4<sup>th</sup> Floor

Chicago, IL 60606

Frederick Keady

Vermillion Coal Company

1979 Johns Drive

Glenview, IL 60025

James Eggen

Director of Public Works & Utilities

City of Joliet

921 E. Washington St

Joliet, IL 60431

W.C. Blanton

Blackwell Sanders LLP

4801 Main St

Suite 1000

Kansas City, MO 64112

Kay Anderson

American Bottoms

One American Bottoms Road

Sauget, IL 62201

Jack Darin

Sierra Club

70 E. Lake St

Suite 1500

Chicago, IL 60601-7447

Jerry Paulsen Cindy Skrukrud McHenry County Defenders 132 Cass Street Woodstock, IL 60098

Matthew Dunn
Office of the Attorney General
Environmental Bureau North
69 West Washington Street
Suite 1800
Chicago, IL 60602

Bernard Sawyer Thomas Granto Metropolitan Water Reclamation District 6001 W. Pershing Rd Cicero, IL 60650-4112

Fredric Andes Erika Powers Barnes & Thornburg 1 North Wacker Dr Suite 4400 Chicago, IL 60606

Lisa Frede Chemical Industry Council of Illinois 1400 E. Touhy Avenue, Suite 110 Des Plaines, IL 60018

Jeffrey C. Fort Ariel J. Tesher Sonnenschein Nath & Rosenthal LLP 7800 Sears Tower 233 S. Wacker Drive Chicago, IL 60606-6404

James L. Daugherty Thorn Creek Basin Sanitary District 700 West End Avenue Chicago Heights, IL 60411

Tracy Elzemeyer American Water Company 727 Craig Road St. Louis, MO 63141 Bob Carter Bloomington Normal Water Reclamation PO Box 3307 Bloomington, IL 61702-3307

Tom Muth Fox Metro Water Reclamation District 682 State Route 31 Oswego, IL 60543

Kenneth W. Liss Andrews Environmental Engineering 3300 Ginger Creek Drive Springfield, IL 62711

Albert Ettinger Jessica Dexter Environmental Law & Policy Center 35 E. Wacker Suite 1300 Chicago, IL 60601

Vicky McKinley Evanston Environmental Board 223 Grey Avenue Evanston, IL 60202

Marc Miller Jamie S. Caston Office of Lt. Governor Pat Quinn Room 414 State House Springfield, IL 62706

Dr. Thomas J. Murphy 2325 N. Clifton St Chicago, IL 60614

Beth Steinhorn 2021 Timberbrook Springfield, IL 62702

Thomas V. Skinner Thomas W. Dimond Kevin Descharnais Mayer Brown LLP 71 South Wacker Drive Chicago, IL 60606

Irwin Polls
Ecological Monitoring and Assessment
3206 Maple Leaf Drive
Glenview, IL 60025

James Huff Huff & Huff, Inc. 915 Harger Road, Suite 330 Oak Brook, IL 60523

Mark Schultz Navy Facilities and Engineering Command 201 Decatur Avenue, Bldg. 1A Great Lakes, IL 60088-2801

Stacy Meyers-Glen Openlands 25 E. Washington, Suite 1650 Chicago, IL 60602 Ann Alexander Natural Resources Defense Council 101 N. Wacker Dr Suite 609 Chicago, IL 60606

Cathy Hudzik City of Chicago Mayor's Office of Intergovernmental Affairs 121 North LaSalle Street, Room 406 Chicago, IL 60602

Traci Barkley Prairie Rivers Networks 1902 Fox Drive, Suite 6 Champaign, IL 61820

Lyman C. Welch Alliance for the Great Lakes 17 N. State St., Suite 1390 Chicago, IL 60602

#### **CERTIFICATE OF SERVICE**

The undersigned, an attorney, certifies that true copies of the foregoing Notice of Filing and Midwest Generation's Response to Motion for a Hearing on the Impact of the Litigation Before the United States Supreme Court Relating to the Migration of Asian Carp Through the Chicago Sanitary and Ship Canal was filed electronically on January 21, 2010 with the following:

John Therriault, Assistant Clerk Illinois Pollution Control Board James R. Thompson Center 100 West Randolph Street, Suite 11-500 Chicago, IL 60601

and that true copies were mailed by First Class Mail, postage prepaid, or sent electronically on January 21, 2010 to the parties listed on the foregoing Service List.

Susan M. Franzetti

#### BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
WALEED OLIVE INVESTIGATION AND ADDRESS OF	)	D00 0
WATER QUALITY STANDARDS AND	)	R08-9
EFFLUENT LIMITATIONS FOR THE	)	(Rulemaking – Water)
CHICAGO AREA WATERWAY SYSTEM	)	
AND LOWER DES PLAINES RIVER	)	
PROPOSED AMENDMENTS TO 35 ILL.	)	
ADM. CODE 301, 302, 303, and 304	)	

MIDWEST GENERATION L.L.C.'S RESPONSE TO MOTION FOR A HEARING ON THE IMPACT OF THE LITIGATION BEFORE THE UNITED STATES SUPREME COURT RELATING TO THE MIGRATION OF ASIAN CARP THROUGH THE CHICAGO SANITARY AND SHIP CANAL

Midwest Generation L.L.C. ("Midwest Gen") hereby submits its response to the Citgo Petroleum Corporation and PDV Midwest, LLC Motion for a Hearing on the Impact of the Litigation before the United States Supreme Court Relating to the Migration of Asian Carp through the Chicago Sanitary and Ship Canal ("Citgo Motion for Hearing"). Midwest Gen supports Citgo's Motion for Hearing based on the significant, recent developments relating to the Asian Carp's migration into the waters that are the subject matter of this rule-making proceeding. In granting Citgo's request for a hearing, the Illinois Pollution Control Board should allow the presentation of testimony and other evidence relating to the issues raised by the migration of Asian Carp into and through not only the Chicago Area Waterway System (CAWS), as requested in Citgo's motion, but also regarding its migration into and through the Lower Des Plaines River (LDP) waters to which this rule-making applies. For the reasons set forth below, Midwest Gen maintains that it will be materially prejudiced by the failure to hold an additional hearing on the migration of the Asian Carp into the UAA waters.

1. Through its motion, Citgo has appropriately and accurately brought to the Board's attention many of the significant developments that have recently occurred relating to the migration of the Asian Carp up into the LDP and through the Chicago Sanitary and Ship Canal ("CSSC"). Although over thirty days of hearings have been held in this rule-making, there has been little or no mention of the problems posed by the migration of the Asian Carp or of the response actions that have been or are planned to be taken to prevent its migration into Lake

Michigan. The absence of such testimony is largely attributed to the fact that so much has changed so quickly in the past two months regarding the presence and continuing migration of the Asian Carp within the UAA waters at issue in this proceeding. Clearly, it is not due to any lack of due diligence on the part of MWGen, Citgo or any of the other active participants in this hearing that this information has not been previously presented to the Board. MWGen has been an active and diligent participant in this rule-making through its presentation of witnesses and its questioning of several of the witnesses presented by the Agency and other interested parties..

- 2. Based on the limited hearing testimony by the Illinois Environmental Protection Agency's (hereinafter "Illinois EPA" or "Agency") witnesses on the issue of invasive species, it does not appear that the effects on aquatic life that are likely to result from the migration of the Asian Carp were considered by the Agency in its deliberations leading up to the filing of this rule-making in October 2007. Early on, the Agency's witness Robert B. Sulski testified that the Agency took the invasive species electrical barrier (the "Electric Barrier") into consideration only when it made its decisions on recreational use. (Testimony of Robert B. Sulski, January 29, 2008 Hearing Transcript at p. 83). There is no evidence that the Agency considered the effects on aquatic life due to the migration of Asian Carp through the Lower Des Plaines up to the location of the Electric Barrier in the Chicago Sanitary and Ship Canal. Similarly, there is no evidence that the Agency considered the potential ramifications of the Asian Carp's migration through the Electric Barrier into the CAWS. Previously, the absence of such consideration may have been excused because it was arguably an exercise in speculation on the effects of events that might never occur. But, as made evident by the recent developments described in Citgo's Motion, that time has come and gone; past speculation has regrettably now become today's reality. In December 2009, a bighead Asian Carp was found in the CSSC. See December 8, 2009 Asian Carp Rapid Response Workgroup Press Release, a copy of which is attached as Exhibit A; see also http://www.asiancarp.org/rapidresponse/images/CarpBarrierMapweb.jpg (last accessed January 21, 2010). Because the Asian Carp's presence in U.S. waters is a humancaused condition, it is appropriately considered in this UAA rule-making pursuant to the terms of the federal UAA regulation. See 40 C.F.R. § 131.10(g)(3).
- 3. The reality of the migration of the Asian Carp into the LDR and CAWS is a matter that clearly warrants further review and consideration in this rule-making. This can and should be accomplished through the granting of a hearing for the presentation of sworn testimony and

supporting documentary evidence. As discussed further below, there is important information concerning both the Asian Carp's migration into the UAA waters along with the scientific and legal issues these facts give rise to concerning the impact on aquatic life, a central issue in this rule-making, which can only be presented through hearing testimony by experts in the field. There are not published studies or other literature reviews on the presence of Asian Carp in the LDP and the effects that it has had in the lower reaches of the LDP. This information must be gathered and presented to the Board through expert witness testimony, something which MWGen is already taking steps to try to accomplish as quickly as possible.

- 4. There also have been several new developments regarding the construction and operation of the Electric Barrier that was intended to prevent the upstream migration of Asian Carp. When this proceeding started, there was only one such barrier operating, known as the "Aquatic Nuisance Species Dispersal Barrier" or "Barrier I," which was initially activated in 2002 in the CSSC at River Mile 296.5 in Romeoville, IL. Barrier I uses a low-charge electrical current (a maximum of approximately one-volt per inch) to create an electric field in the water across the canal by pulsing low voltage DC current through steel cables secured to the bottom of the canal. As a demonstration project, Barrier I was designed and built with materials that were not intended for long-term use. Because the Barrier I demonstration project was thought to be effective, a second more permanent barrier (called "Barrier II") was authorized to be constructed 800 to 1,500 feet downstream of Barrier I. Barrier II covers a larger area within the CSSC. Barrier II consists of two sets of electrical arrays and control houses, known as "Barriers IIA and IIB." The intended goal is to operate both Barriers IIA and IIB at the same time. Barrier IIA was successfully operated for the first time in September and October 2008, while Barrier I was taken down for maintenance. However, due to safety and technical concerns, activation of Barrier IIA was delayed until April 8, 2009. Construction on the third barrier, Barrier IIB, is partially completed. The intention is for all three barriers (Barriers I, IIA and IIB) to work together to deter the migration of invasive species through the canal system. See http://www.lrc.usace.army.mil/projects/fish barrier/index.html (last accessed January 20, 2010).
- 5. Midwest Gen believes that presenting evidence at a hearing regarding the current and planned future operation of the Electric Barrier and its effect on the aquatic community is extremely important. For example, Midwest Generation will present testimony showing that the plans for, location and operation of the Electric Barrier in the CSSC is not intended to and will

not prevent the upstream migration of Asian Carp into the LDP, particularly the UDIP which is located downstream of the Electric Barrier. Because the evidence to be presented will show that the migration of the Asian Carp has reached the UDIP, and that there is no electric barrier to stop the Asian Carp from inhabiting that pool, the Board also should hear evidence of what the likely effects of this development will be on the existing and future aquatic life community of the UDIP. Because of Citgo's location upstream of the UDIP, its motion understandably does not include a request that the proposed hearing include consideration of the Asian Carp's presence in the UDIP. For this reason, Midwest Gen respectfully requests that in granting Citgo's motion, the Board exercise its discretion to allow testimony concerning the effects of the migration of the Asian Carp not just into the CSSC or the CAWS, as requested by Citgo, but also the effects of its uncontrolled migration into the Lower Des Plaines River UAA waters that are the subject of this proceeding. This approach will avoid piecemeal consideration of the Asian Carp issues that are relevant to this proceeding. Midwest Gen already has initiated an expert review of these aquatic life issues so that it will be prepared to present expert testimony on them at the hearing and to answer any questions raised by that testimony. However, in this regard, Midwest Gen also requests that in granting Citgo's Motion, the Board also give consideration to inviting the testimony of the Illinois Department of Natural Resources and other knowledgeable governmental agencies to testify before the Board on these issues, particularly the future migration of the Asian Carp, the impact of the Asian Carp on the aquatic life in waterways in which they have become established, and the likely future impact of the Asian Carp on aquatic life in the UDIP and the CSSC.

6. Although a complete review of the potential effect of the Asian Carp's presence in the UDIP is beyond the scope of this response, Midwest Gen will briefly explain why the likelihood of an adverse effect on the diversity of the aquatic community is a material issue that warrants further review in a hearing before the Board in order to avoid material prejudice to the interests of Midwest Gen and other similarly-situated parties in this rule-making. The term "Asian Carp" refers to a group of invasive species of fish that can grow up to four feet long, weigh over 100 pounds and leap eight feet out of the water. See USGS Fact Sheet on Bighead and Silver Carp attached hereto as Exhibit B. Of particular concern here are two species, the bighead carp (Hypophthalmichthys nobilis) and the silver carp (Hypophthalmichthys molitrix), both of which are plankton feeders that can consume up to 40% of their body weight in food each day. See

USGS Fact Sheet (Ex. B); see also <a href="http://www.asiancarp.org/rapidresponse/faq.htm#3">http://www.asiancarp.org/rapidresponse/faq.htm#3</a> (last accessed January 21, 2010). As such, they are in direct competition for food with other native adult fish species, such as bigmouth buffalo and gizzard shad, as well as with all species of juvenile fish and mussels. Because of their plankton feeding habits, they are not subject to fishing pressure by anglers, and due to their size, they have no natural predators. These facts show that it is reasonable to conclude that the presence of Asian Carp in the UDIP may significantly change the aquatic life community in those waters.

- 7. Midwest Gen believes that relevant scientific data exists to present to the Board at a hearing on this issue and is committed to actively participating in such a hearing if the Board grants this motion. The Agency's proposed aquatic life use designation for the UDIP is based on its belief, which Midwest Gen has vigorously disputed in this proceeding, that the UDIP aquatic life community has the potential to "minimally attain" the Clean Water Act's interim goals. The Agency has not presented any evidence that it considered the potential effect of the Asian Carp's presence in the UDIP in reaching its aquatic life use conclusions. Midwest Gen (which has two electrical generating stations located in the UDIP) and other interested parties should be provided an opportunity to do so and to present testimony on this issue to the Board. Midwest Gen clearly will be materially prejudiced by the failure to hold a hearing to allow the presentation of expert testimony on whether and to what extent the diversity of aquatic life in the UDIP is reasonably expected to decline due to the presence of the Asian Carp. Certainly, before any decision is made that may lead to stricter thermal water quality standards for the UDIP and require the expenditure of tens of millions of dollars in compliance costs, the Board should find out whether or not such rules may result in protecting an aquatic community in the UDIP consisting largely of the Asian Carp invasive species. Therefore, before the Board moves past the phase of these hearings devoted to the material issue of aquatic life uses, it should hear evidence concerning the effect on the aquatic community of the migration of the Asian Carp into the LDP.
- 8. Citgo's motion is also based in part on the outcome of the United States Supreme Court case. However, it is important for the Board to recognize that regardless of the outcome of that case, the issue of the effect of the migration of the Asian Carp into the UDIP, along with the changes within the LDP and the CAWS it is causing, will remain a significant and critical issue for the determination of aquatic life use designations. Whether or not there ultimately is any change in how the CAWS is connected to Lake Michigan as a result of legal action, the relevant

facts to be presented at the requested hearing are expected to show that there is no effort to stop their migration into the UDIP. No matter how the Supreme Court (or any other court in the future) rules on the issue of the ecological separation of the CAWS from the Great Lakes, at the least, a hearing should be held to address what the potential effects on aquatic life use are expected to be due to the presence of Asian Carp as part of the fish community in the UDIP.

9. As the Citgo motion mentions, the relief sought by the petitioners in the United States Supreme Court case includes the regular applications of fish poison into the CSSC to ensure that Asian Carp do not pass through the Electric Barrier. (Citgo Motion at para. 5). One such planned fish kill already was completed on December 2, 2009 when the more powerful Barrier IIA was taken down for scheduled routine maintenance. It was called the "Asian Carp Rapid Response Plan." The December 2009 injection involved the application of Rotenone, a fish toxicant, to a 5.7 mile stretch of the CSSC. See 12/6/09 Illinois Department of Natural Resources Press Release, a copy of which is attached as Exhibit C; see also Exhibit D Affidavit of Steven J. Shults at para. 22, Appendix A at p. 7a, State of Illinois' Response to Michigan's Motion for Preliminary Injunction. One of the Midwest Gen electrical power stations, the Will County Station, is located within this stretch of the CSSC. As stated in the attached December 22, 2009 letter from the Director of the Illinois Department of Natural Resources ("IDNR"), Midwest Gen was one of the many parties that provided leadership and support for the Response Plan. (See 12/22/09 IDNR Letter attached as Exhibit E). Tens of thousands of fish were killed, one of which was a Bighead Asian Carp collected nearly 500 feet above the Lockport Lock on December 3, 2009. (Ex. D Shults Affidavit at para. 23). Testing has resulted in the identification of positive eDNR Asian carp results in the CSSC above the barrier, and such testing continues to detect such eDNA evidence at other locations within the CAWS and closer to Lake Michigan. (Ex. D Shults Affidavit at paras. 24 & 25). Silver carp also has been spotted in the Des Plaines River below the Lockport Lock & Dam. See http://www.asiancarp.org/rapidresponse/images/CarpBarrierMapweb.jpg (last accessed January 21, 2010).

<sup>&</sup>lt;sup>1</sup> Citgo also participated in the Asian Carp Rapid Response Plan activities. However, to the extent that Midwest Gen will not duplicate testimony to be provided by Citgo on this matter, Midwest Gen also intends to present witness testimony by one of its employees, Julia Wozniak, who participated in the meetings and events that were part of the Asian Carp Rapid Response Plan.

- 10. As part of the December 2009 Rotenone injection effort, thousands of dead fish were collected from the CSSC. (See Ex. C (12/6/09 press release)) Information concerning this fish collection effort has been recorded. (Id.) The December 2009 fish collection data is another example of evidence that should be presented at a hearing because it is relevant to the germane issue of the nature of the existing fish community in the CSSC.
- 11. Citgo's motion also raises the issue of a potential deferment of that portion of this rule-making relating to the CSSC or the CAWS generally. Citgo's underlying premise that these are uncertain times for making decisions concerning the future attainability of aquatic life uses for these UAA waters is well-founded. Based on the quick pace of developments in just the past two months, this is a time of evolving knowledge and future plans. One thing is perhaps certain the future will bring change for this waterway. There are already ongoing discussions concerning what changes will be made to stop the advancement of Asian Carp into the Great Lakes under the leadership of several government agencies. *See* Exhibit F, January 19, 2010 "Asian Carp Update" by the United States Environmental Protection Agency (USEPA), U.S. Army Corps of Engineers (USACE) and U.S. Fish and Wildlife Service (USFWS), <a href="http://www.lrc.usace.army.mil/pao/RegionalTeam-AsianCarpUpdate-2010Jan19.pdf">http://www.lrc.usace.army.mil/pao/RegionalTeam-AsianCarpUpdate-2010Jan19.pdf</a> (last accessed January 20, 2010).
- 12. The very recent January 19, 2010 joint presentation by the USEPA, USACE and USFWS presents an outline of a "Comprehensive Plan to Address Asian Carp Migration" that involves multiple agencies and multiple measures to stop the Asian Carp's migration into Lake Michigan. Among the "near-term" measures (defined as through the end of 2010) identified is to "prevent migration with barriers and other operational changes (USACE) and rotenone (IDNR) as needed." The Comprehensive Plan clearly identifies changes that may impact the aquatic community in the CSSC and other parts of these UAA waters. A hearing should be held to inform the Board of these plans. Such information will assist the Board to determine whether and to what extent any deferment is appropriate. If, for example, the approximately 6-mile stretch of the CSSC may need to be subjected to periodic planned fish kills, which are clearly detrimental to the aquatic life in this area, the Board should consider deferring any decision on the appropriate aquatic life use of the CSSC. The issue of what aquatic life use may be "attainable" for the CSSC, particularly in the area of the Electric Barrier, may simply not yet be

"ripe" for the Board's decision given the uncertainty surrounding what measures will be used to prevent the migration of the Asian Carp through the CSSC.

13. Some may contend that requests such as Citgo's that raise the issue of deferring the Board's decision on aquatic life uses for the CSSC is simply a delay tactic. But there are times when not taking action is the most prudent course to avoid making decisions that will be proven to be ill-founded in the near future. This may be one of those times. Prior to these recent events, none of the participants in this rule-making predicted that Asian Carp would be present as far north as the CSSC or that a government-authorized fish kill would take place there. The dramatic and far-reaching developments regarding the migration of the Asian Carp in these UAA waters are certainly sufficient to warrant taking a momentary "breath" to allow the Board and interested parties to assess what would be the prudent future path of this proceeding. There is much at stake here. Even the current incomplete state of the hearing record contains evidence of technological obstacles and severe economic costs that will arise from efforts to achieve compliance with the Illinois EPA's proposed rules. Proceeding ahead without taking this opportunity to hear evidence related to recent Asian Carp migration developments brings with it the inherent risk a critical evidentiary gap will exist in this hearing record that may cause the Board to make a decision it would not have made if the missing evidence had been provided.

For all of the above reasons, Midwest Gen supports the Citgo motion's request for a hearing and further submits that the scope of the hearing should include the presentation of testimony and other evidence relating to the issues raised by the migration of Asian Carp into and through not only the Chicago Area Waterway System (CAWS), as requested in Citgo's motion, but also regarding its migration into and through the Lower Des Plaines River (LDP) waters to which this rule-making applies. Midwest Gen respectfully submits that based on the evidence presented at the requested hearing, the Board also allow an opportunity for the parties to present further comment to the Board on the issue of a deferment of all or portions of this rule-making.

Respectfully submitted,

MIDWEST, GENERATION, L.L.C.

By: Mau M. Kungle Susan M. Franzetti

Date: January 21, 2010

Susan M. Franzetti NIJMAN FRANZETTI LLP 10 S. LaSalle St., Suite 3600 Chicago, IL 60603 (312) 251-5590 (phone) (312) 251-4610 (fax)



## Asian Carp Rapid Response Workgroup

FOR IMMEDIATE RELEASE

December 8, 2009

U.S. Army Corps of Engineers

U.S. Fish and Wildlife Service

U.S. Coast Guard

U.S. Environmental Protection Agency

Illinois Department of Natural Resources

Chicago Department of Environment

Great Lakes Commission

Great Lakes Fishery . Commission

Great Lakes Interagency
Task Force

International Joint Commission

Metropolitan Water Reclamation District

Midwest Generation

U.S. Department of Agriculture - APHIS

Wisconsin Sea Grant

CONTACTS:

Chris McCloud (IDNR), 217 785-0075

Mick Hans (USEPA), 312-353-5050

Lynne Whelan (USACE), 312 846-5330

Lt. Dave French (USCG), 216 902-6021

# Asian Carp Rapid Response Workgroup finishes operation on Cal-Sag Channel

No Asian carp collected above electrical barrier; safety zone rescinded

CHICAGO – The Asian Carp Rapid Response Workgroup has completed fishing operations near the T.J. O'Brien Lock in an attempt to locate Asian carp after eDNA sampling in the area tested positive for the invasive species. The Workgroup used commercial fishermen and federal fisheries personnel to deploy nearly 3,000 yards of fishing nets along a 5.5-mile stretch of the Cal-Sag Channel. While the nets were successful in collecting more than 800 fish, no Asian carp were found. The catch included more than 700 common carp and 10 other species.

The fishing operations that began on Dec. 1, wrapped up late yesterday, Dec. 7. On Monday evening, the U.S. Coast Guard reopened the Cal-Sag Channel and Little Calumet River to vessel traffic.

While the fishing operations and the Chicago Sanitary and Ship Canal rotenone application have thus far confirmed just one Bighead Asian carp, the Workgroup expects their work to continue for some time.

- more -



eDNA is serving its purpose as an early warning system and suggests that Asian carp may have reached the Cal-Sag Channel. Based on recent sampling and the fish collection efforts there, the Workgroup believes that if Asian carp are present, their numbers are likely very small. The Workgroup and its partners are committed to remaining vigilant in the future and exploring all options available to prevent the spread of Asian carp to the Great Lakes.

Among the next steps already underway to prevent the spread of the destructive fish to the Great Lakes:

- Illinois Department of Natural Resources and other partners will evaluate the week's efforts and develop options for additional carp population assessment and control in the Cal-Sag Channel and Chicago Sanitary and Ship Canal
- U.S. Army Corps of Engineers will continue their eDNA sampling effort with the University of Notre Dame
- U.S. Army Corps of Engineers are focused on addressing potential bypass issues (along the Des Plaines River, I&M Canal, Grand Calumet and Little Calumet River), the interbasin study and expedited construction of barrier IIB
- The Rapid Response Workgroup partners are evaluating a range of additional options and consequences for Asian carp prevention management strategies in the waterways—and potentially, further into the Great Lakes

The Asian Carp Rapid Response Workgroup includes the Illinois Department of Natural Resources, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, U.S. Coast Guard, U.S. Department of Agriculture Animal and Plant Health Inspection Service, Chicago Department of Environment, Metropolitan Water Reclamation District of Greater Chicago, Midwest Generation, Great Lakes Commission, Great Lakes Fishery, Commission, International Joint Commission, and Wisconsin Sea Grant.

Fisheries management agencies from Indiana, Wisconsin, Michigan, Minnesota, Ohio. Pennsylvania, New York and Canada have also provided support to the operation.

For more information about Asian carp and the Rapid Response operations, see <a href="https://www.asiancarp.org/rapidresponse">www.asiancarp.org/rapidresponse</a>.

Additional media resources:

Marc Gaden (Great Lakes Fishery Commission), 734-744-5716

Larry Merritt (Chicago DOE), 312 744-5716



Columbia Environmental Research Center

## Facts About Bighead and Silver Carp

#### **Invasive Asian Carps**

- Silver and bighead carp were first captured from the wild in the 1980's, and continued escaping aquaculture facilities through the 1990's.
- Both fishes have spread to most of the Mississippi River drainage, which includes the Missouri and Ohio Rivers and their tributaries.
- High-head dams have prevented upstream movement to reservoirs.
- Both fishes grow quickly to large size (>50 pounds).
- Despite their recent introduction, they may now be the most abundant large (>5 pounds) fish in the lower Missouri River.
- Thousands of pounds of carp can be caught from an area of less than a half acre.



Bighead carp can exceed 50 pounds; the average fish in mid-Missouri is between 12 and 15 pounds.

#### **Real and Potential Threats**

- Asian carps pose a considerable hazard to boaters, mainly due to silver carp jumping into moving boats, causing human injuries and property damage. Damage from a jumping carp hitting an object might reasonably be compared to being hit with a thrown bowling ball.
- Water skiing is a risky sport in waters that silver carp inhabit.
- "Bait bucket transfer" can move these invasive species around dams into reservoirs, causing serious deleterious impacts on fisheries and recreational boating.
- Asian carps have little economic or sport value compared to native fishes.
- In Europe and Asia where bighead and silver carp have been introduced outside their native range, they usually exceed 90% of the commercial catch.
- Bighead and silver carp are in direct competition with native fishes for food and space, and may prey on larvae of native fishes. Most native fishes eat plankton during part of their life cycle, the same food that Asian carps eat.
- Like the introduced zebra mussel, Asian carp have the potential to disrupt the ecology and the food web of large river systems.

#### **CERC Research and Results**

- Bighead and silver carp are active and feed year round.
- Both carps were observed making long upstream migrations after



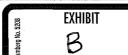
Silver carp are active during the winter months, even feed under the ice.

spring river rises, which are known spawning cues for bighead carp.

- Asian carps are well-adapted to North American large river systems, and can make long distance migrations in short periods. Some have traveled over 200 miles in a year.
- Paddlefish, a species of concern, feed on plankton as adults, and are shown to be out-competed by bighead carp.
- Bighead and silver carp hybridize in the wild.
- Stomach content analysis reveals that Asian carps may be eating foods other than plankton, which indicates the ability to invade habitats that would not normally support filter feeders.
- Low velocity habitats within the lower Missouri River have abundant populations of large bighead and silver carp.
- After long distance movements, some Asian carps return to the same tributaries or wing dike fields they previously occupied.

\$

125 years of science for America



(Below) A side-scan SONAR image of the Lamine River where Asian carps are abundant. The bright yellow spots and streaks are large fish, averaging about three feet in length. The black spots on the river bottom are shadows of fish, and the reddish brown background is river bottom substrate. The side-scan SONAR is a specialized SOund NAvigation and Ranging system for imaging underwater environments.

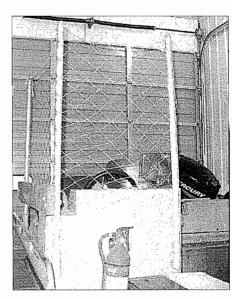




(Above) A tranmel net haul from the Missouri River shows the abundance of bighead and silver carp, which easily constitutes two thirds of the catch using this type of gear. In this particular haul, only two native fish are visible.

#### Information Needed

- Further understanding of Asian carps' life history in invaded environments, including habitats and locations used by juvenile carps.
- Research into innovative control methods such as pheromone attractants and natural repellents.
- Expansion of on-going diet studies to determine competition and predation on eggs and larvae of native fishes.
- How to use the Asian carps' natural reproduction and recruitment constraints as population controls.
- Development of models to determine the long-term effects of Asian carps in U.S. large river ecosystems.
- Improved methods for harvesting large numbers of these fishes.
- Define the large river habitat overlaps with native fish.



(Above) To protect themselves from jumping carp injury, the project team constructed and anchored a "carp guard" to the boat used for carp research.

#### Contact:

Duane Chapman U.S. Geological Survey CERC 4200 New Haven Road Columbia, MO 65201 573-876-1866 dehapman@usgs.gov



# Illinois Department of **Natural Resources**

One Natural Resources Way · Springfield, Illinois 62702-1271 http://dnr.state.il.us

Pat Quinn, Governor

Marc Miller, Director

#### FOR IMMEDIATE RELEASE

December 6, 2009

**CONTACTS: Chris McCloud (IDNR)** 

(217) 785-0075

Phillippa Cannon (USEPA)

(312)-353-6218

Lynne Whelan (USACE)

(312)-846-5330

CPO. Robert Lanier (USCG)

(216)-357-8411

# Asian Carp Rapid Response Workgroup wraps up main operation on Chicago Sanitary Ship Canal

#### Scheduled routine electric barrier maintenance complete

**CHICAGO** – The Asian Carp Rapid Response Workgroup is closing out main project operations on a 5.7-mile stretch of the Chicago Sanitary and Ship Canal (CSSC) that began on December 2.

Maintenance on the electric barrier, IIA, was completed and the barrier was returned to operation at 10 p.m. on Friday, December 4.

"This has been a tremendous cooperative undertaking. Thanks to the outstanding efforts of our partner agencies from the U.S. and Canada, the Corps team was able to successfully complete this necessary maintenance and to do so ahead of schedule," said Col. Vincent Quarles, Commander of the U.S. Army Corps of Engineers, Chicago District.

"We appreciate the understanding and support of the navigation industry during this important maintenance operation. The Army Corps of Engineers is fully aware of both the economic and environmental importance of the area waterways," Quarles said.

The U.S Coast Guard (USCG) began enforcing a safety zone on the CSSC on December 2 in support of Asian Carp Rapid Response Operations. USCG has already restored access to parts of the canal and will continue to reduce the safety zone as the workgroup completes final phases of the operation.

In support of scheduled routine barrier maintenance, biologists working with the Asian Carp Rapid Response Workgroup began applying Rotenone, a fish toxicant, on Wednesday, December 2 on a 5.7-mile stretch of the canal.

-more-



"I want to thank each and every person and organization who put forth an extreme amount of time, energy and resources to make this project a success," said Illinois Department of Natural Resources Assistant Director John Rogner. "The eDNA testing worked to give us an early warning. We took it seriously and we took action. The alternative was to do nothing and that would have been a mistake."

Rotenone application was chosen as the best option for keeping Asian carp from breaching the lower voltage demonstration barrier while the more powerful Barrier IIA was taken down for scheduled routine maintenance. The application of rotenone and a detoxifying agent was successful and the clean-up of visible dead fish are complete at this time.

One Bighead Asian carp was discovered nearly 500 feet above the Lockport Lock on Thursday afternoon, December 3. Biologists with the workgroup believe there is a high probability that additional Asian carp were killed during the toxicant application but may not be found.

"The cold water temperatures on the canal this week means far more fish are sinking to the bottom of the waterway than will float to the top. Over the next several weeks and months, some fish may float to the surface but the majority of fish will break down naturally below the surface," said Illinois Department of Natural Resources Fisheries Chief Steve Pallo.

The workgroup has collected thousands of fish, mostly common carp, from the canal since cleanup efforts began on December 3. Those fish are being disposed of properly in a landfill.

The public should be advised that dead fish may be observed from time to time over the next several weeks as some fish may rise to the surface. Public health officials always caution against eating dead or dying fish in any instance that have not been caught alive.

The workgroup is now focused on efforts above the electrical barrier system near T.J. Obrien Lock in an attempt to find Asian carp in areas where positive eDNA tests have been found. Positive Asian carp DNA evidence exists over nearly 10 miles of the Cal-Sag Channel and Sanitary and Ship Canal above the barrier.

The workgroup is using commercial fishermen, augmented with state and federal fisheries personnel, to deploy commercial fishing gear in a 5.5-mile stretch of the Cal-Sag Channel. Fishing operations are using nearly 2,000 yards of fishing nets deployed for two overnight periods. Nets have been deployed over portions of the reach since Dec. 1 and have been highly successful in collecting fish, although no Asian carp have been collected.

While the workgroup considered additional Rotenone application in specific areas above the barrier as a sampling option, there is no evidence to suggest Asian carp might be concentrated in any specific part of the 10-mile stretch of the canal where eDNA tests have been positive.

Water temperatures above the barrier are much colder than downstream where Rotenone was applied for the main project in support of scheduled barrier maintenance. At these temperatures, dead fish would likely never surface to be identified. Without identification, Rotenone would be ineffective as a sampling tool.

In contrast, fishing nets would effectively sample the entire reach and provide the best evidence of the potential presence and relative abundance of Asian carp in this stretch of channel. It would also confirm the exact location of any fish collected. Any Asian carp collected will be removed from the system, thereby providing a measure of population reduction.

"The effort near the O'Brien Lock is fundamentally different from the action below the barrier. The purpose of applying Rotenone below the barrier was to ensure no Asian carp advanced up the channel while the barrier was powered down. In addition, Rotenone would provide us little if any information about the presence and abundance of carp in this reach upstream," said IDNR Assistant Director John Rogner.

The Asian Carp Rapid Response Workgroup and its partners are committed to remaining vigilant in the future and to explore all options available to prevent the spread of Asian carp to the Great Lakes.

The Asian Carp Rapid Response Workgroup includes the Illinois Department of Natural Resources, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, U.S. Coast Guard, USDA Animal and Plant Health Inspection Service, Chicago Department of Environment, Metropolitan Water Reclamation District of Greater Chicago, Midwest Generation, Great Lakes Commission, Great Lakes Fishery Commission, International Joint Commission, and Wisconsin Sea Grant. Fisheries management agencies from Indiana, Wisconsin, Michigan, Minnesota, Ohio, Pennsylvania, New York and Canada have also provided support to the operation.

For more information about Asian carp and the Rapid Response operations on the CSSC, the public and media are encouraged to log on to <a href="https://www.asiancarp.org/rapidresponse">www.asiancarp.org/rapidresponse</a>.

#### In The

## Supreme Court of the United States

October Term 1966

STATES OF WISCONSIN, MINNESOTA, OHIO. AND PENNSYLVANIA, Complainants,	
STATE OF ILLINOIS AND THE METROPOLITAN SANITARY DISTRICT	No. 1 Original
OF GREATER CHICAGO,  Defendants.  UNITED STATES OF AMERICA,	: 
Intervenor, STATE OF MICHIGAN, Complainant,	
v. STATE OF ILLINOIS AND THE	No. 2 Original
METROPOLITAN SANITARY DISTRICT OF GREATER CHICAGO, Defendants,	
UNITED STATES OF AMERICA, Intervenor,	
STATE OF NEW YORK,  Complainant;	NI- 2
V.  STATE OF ILLINOIS AND THE  METROPOLITAN SANITARY DISTRICT  OF GREATER CHICAGO,  Defendants.	No. 3 Original
UNITED STATES OF AMERICA, Intervenor.	



#### AFFIDAVIT OF STEVEN J. SHULTS

Steven J. Shults being first duly sworn, deposes and states as follows:

- 1. I have worked at the Illinois Department of Natural Resources ("IDNR") for 15 years. Before starting work at the IDNR, I earned an Associate's Degree from Illinois Central College with a major in Chemistry and a Bachelor's of Science Degree from Bradley University with a double major in Environmental Science and Biology.
- 2. Since joining the IDNR, I have always worked in the Division of Fisheries. First, I worked on fish health management issues as a microbiologist at a fish hatchery. Then I became a manager of both the Aquaculture Program and the Aquatic Nuisance Species Program. The Aquatic Nuisance Species Program monitors, controls, and sometimes eradicates non-native species which appear to be taking hold in Illinois. I am currently a Natural Resource Management Supervisor overseeing a field and administrative staff.
- 3. Through my IDNR work, I am also active in professional organizations which deal with the problem of invasive aquatic species in the Midwest, Great Lakes, and Mississippi River Basin regions. For example, I am a member of the American Fisheries Society, the Illinois Aquaculture Industry Association, the Illinois Lake Management Association, and the Mississippi River Basin Panel for Aquatic Nuisance Species.

- 4. In addition, I have participated on the Great Lakes Panel on Aquatic Nuisance

  Species, the Mississippi Interstate Cooperative Resource Association, and the Asian Carp

  Rapid Response Workgroup. I have presented numerous talks and papers on the threat

  Asian Carp pose to the Great Lakes.
- Recently, I served as the Incident Commander designing, planning, and implementing the Asian Carp Rapid Response Plan which occurred in early December 2009.
- 6. I am familiar with some of the efforts made by the federal government, Illinois, other states, and Canada related to preventing Asian Carp from migrating to and taking hold in the Great Lakes.
- 7. Illinois, for example, began monitoring waterways after it was determined that Asian Carp had taken hold in the Mississippi River and were migrating northward.
- 8. Southern states used Asian Carp to help clean farm ponds for aquacultural purposes.

  Unfortunately, during flood events, Asian Carp escaped the ponds and eventually took hold in the Mississippi River.
- 9. In 1990 Congress passed the Nonindigenous Aquatic Nuisance Prevention and Control Act designating the Great Lakes Commission as administrator of the Great Lakes Panel on Aquatic Nuisance Species. Many federal agencies participate on the Panel including the U.S. Fish and Wildlife Service, the U.S. EPA, and the U.S. Army Corps of Engineers.
- 10. In addition to Illinois, the Great Lakes Panel on Aquatic Nuisance Species also includes representatives from the states of Michigan, Minnesota, Indiana, Ohio, New York, Pennsylvania, Wisconsin, and the Canadian provinces of Ontario and Quebec.

- 11. By the mid 1990s, Illinois' monitoring efforts reported increased Asian Carp collection by commercial fishermen and noted the spread of Asian Carp into the Illinois River.
- 12. Ever since the mid 1990s, Illinois has analyzed commercial fishing rates for Asian Carp.
- 13. The Great Lakes Panel provides guidance on aquatic nuisance species research, policies, and educational programs. The Asian Carp is an aquatic nuisance species.
- 14. Monitoring, commercial fishing, and regional meetings related to the Asian Carp have been ongoing since the early 90s.
- 15. In the mid to late 90s, Illinois participated in the Dispersal Barrier Advisory Panel which assessed and planned a barrier system in the Chicago Ship and Sanitary Canal ("CSSC") designed to prevent the migration of invasive species to and from Lake Michigan and other connected Illinois waterways. Illinois and the federal government funded the construction of the original barrier on the CSSC. The barriers are controlled and operated by the U.S. Army Corps of Engineers.
- 16. Illinois has assisted in monitoring the efficacy of the electric barrier system since it was first installed and will continue to do so.
- 17. Though the CSSC is a direct route linking Lake Michigan with other Illinois waterways, it is not the only way that Asian Carp can get into Lake Michigan. For example, people can also introduce Asian Carp into the Great Lakes as has been reported in Lake Erie.

- 18. Also people were concerned that the electric barrier system in the CSSC might fail. Thus, in the early 2000s, Illinois participated with other federal agencies in the Asian Carp Rapid Response Workgroup. By April 2004, Illinois prepared an emergency response plan to protect the Great Lakes by removing Asian Carp from the Lower Lockport Pool of the CSSC should they reach that point on the canal. Illinois and other agencies continued to monitor the CSSC and other Illinois waterways for the presence of Asian Carp.
- 19. Also, the U.S. Army Corps of Engineers constructed another electric barrier in the CSSC to further reduce the risk of Asian Carp getting through and into the Great Lakes.
- 20. Sometime in 2009, the U.S. Army Corps of Engineers contracted with the University of Notre Dame to take eDNA (environmental DNA) samples to determine the presence of Asian Carp in the CSSC below the electric barrier. The Corps and University reported that eDNA samples taken in the spring of 2009 were positive for the presence of Asian Carp.
- 21. Illinois responded to their reports of Asian Carp eDNA in several ways. First, Illinois intensified monitoring efforts by increasing electrofishing and various types of net fishing in the CSSC to attempt to confirm the eDNA sample results. Second, Illinois consulted with the U.S. Army Corps of Engineers about increasing the voltage on the electric barrier to prevent especially juvenile Asian Carp from getting through the barrier. Third, Illinois participated in numerous meetings and conference calls with other federal and state agencies to address the U.S. Army Corps' need to shut down the electric barrier for maintenance. And Fourth, Illinois took the lead for the Asian Carp Rapid Response Workgroup by drafting and implementing the Asian Carp Rapid Response Plan. Some of

the agencies represented in the Workgroup included, in addition to the IDNR, Wisconsin Sea Grant, Metropolitan Water Reclamation District of Chicago, U.S. Fish and Wildlife Service, U.S. EPA, and U.S. Army Corps of Engineers.

- 22. The Asian Carp Rapid Response Plan called for applying Rotenone, a piscicide which would kill all fish, to about six miles of the CSSC starting just above the electric barrier near Romeoville, Illinois flowing downstream toward Lockport, Illinois so that no lish could get past the barrier when it was shut down for maintenance. In order to accomplish this large, expensive project Illinois reached out to other states, federal agencies, and Canada to help with implementing the plan. Michigan, Indiana, Wisconsin, and Canada provided personnel and equipment to help implement the Plan. New York, Pennsylvania, Minnesota, and Ohio participated by making contributions to the plan implementation.
- 23. Illinois could not confirm reported eDNA results using any fishing techniques before applying Rotenone to the CSSC in December 2009. In other words, no Asian Carp were found in the CSSC before the Rotenone application. After applying Rotenone to the stretch of canal below the barrier, tens of thousands of fish were killed and collected one of which was identified as an Asian Carp.
- 24. In November 2009, the U.S. Army Corps of Engineers and the University of Notre Dame again reported positive eDNA results, but this report was for samples collected in September above the electric barrier closer to Lake Michigan in the Cal-Sag Channel below the O'Brien Lock and Dam.

- 25. Though the Rapid Response Plan did not call for any activity many miles above the electric barrier, the Incident Command and general staff decided to sample the area below the O'Brien Lock in another attempt to confirm eDNA results. Based on that decision, Illinois contracted with a commercial fisherman experienced in fishing for Asian Carp. The commercial fisherman, assisted by IDNR and U.S. Fish and Wildlife biologists, electrofished and net fished areas of the Cal-Sag Channel where positive eDNA samples were collected. They caught and identified more than a thousand fish. No Asian Carp were caught or identified.
- 26. The completion of the December 2009 Asian Carp Rapid Response Plan is less than a month old. It is far too soon to know the cost of the operation. However, early budget estimates indicate the Plan will cost the State of Illinois, IDNR, more than \$3,000,000. Some of that will be reimbursed through the federal government. And, it should be noted that figure does not include the costs borne by other states, federal agencies, and Canada.
- 27. The state of Illinois will continue to monitor the waterways for the presence of Asian Carp (and other invasive species) and work with others to prevent Asian Carp from getting into Lake Michigan through the CSSC.
- 28. Since at least the early 1990s, Illinois has contributed significant resources to the problem of invasive aquatic species including Asian Carp.

29. The Great Lakes States, Canada, and the Federal Government have been working together on the general issue of invasive species, and the specific issue of Asian Carp migration for more than ten years.

FURTHER AFFIANT SAYETH NOT

Steven J. Shults

SUBSCRIBED and SWORN to before me this  $\frac{1+i\gamma}{2}$  day of January, 2010

NOTARY PUBLIC





# Illinois Department of Natural Resources

Pat Quinn, Governor Marc Miller, Director

One Natural Resources Way Springfield, Illinois 62702-1271 http://dnr.state.il.us

December 22, 2009

Julia Wozniak Midwest Generation 1 Financial Place 440 S. LaSalle St., Ste. 3500 Chicago, IL 60605

Dear Ms. Wozniak:

On behalf of the Illinois Department of Natural Resources, I am writing to you to express our gratitude and appreciation for the exemplary support provided by Midwest Generation during our Asian carp rapid response operation.

This was a shining moment when state and federal agencies came together in response to a crisis situation and worked in true partnership to address the issues at hand. Midwest Generation played a critical role in the success of the project by providing leadership and public support.

While this operation was successful, we understand that our collective work to prevent the spread of invasive species to the Great Lakes is not complete. We face immediate short-term challenges with the issue of overland flooding that will allow the barrier system to be bypassed.

The State of Illinois stands ready to work with your agency to address this issue. We also look forward to the opportunity to collaborate once again with Midwest Generation and other stakeholders on developing long-term sustainable solutions to the problem of inter-basin transfer of aquatic invasive species.

Sincerely

Marc Miller

Director

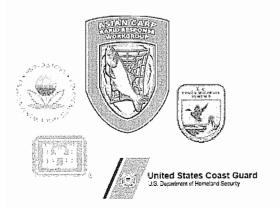
# Asian carprotoffidated, Clerk's Office, January 21, 2010

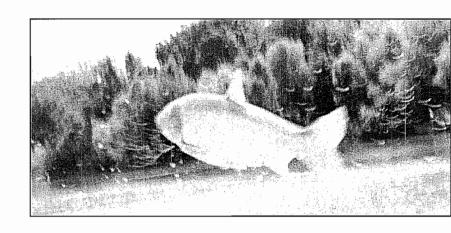
USEPA - Mr. Cam Davis

USACE - MG John Peabody

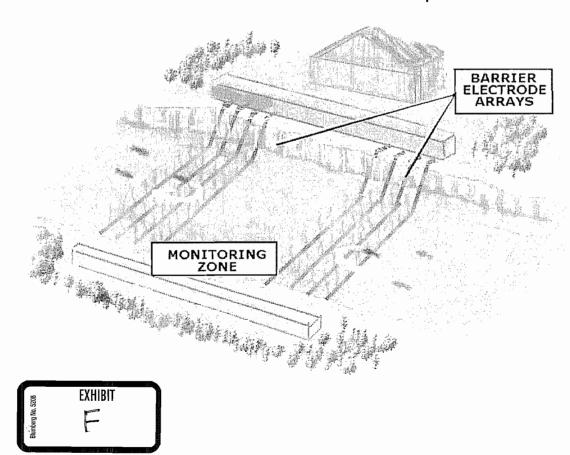
USFWS - Mr. Charlie Wooley

19 JAN 2010





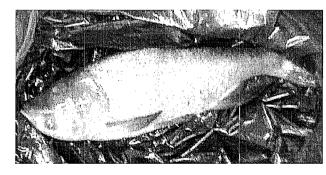
Silver Carp



# Briefing Purpose & Outline

Purpose: Highlight recent Asian carp monitoring efforts and multi-agency migration prevention strategies.

- Multi-Agency Collaboration
- Asian carp Monitoring Update
- Multi-Agency Response Actions
- USACE Strategy for Deterring Asian carp migration



Bighead Carp Recovered from Lockport Pool 3 Dec 2009

# Rapide Response: Multi-Ageneya Collaboration

#### Functional Responsibility Matrix - Rapid Response

Response Section/ Agency Rapid Response Functions	City of Chicago	EPA	IDSR.	Law Enforcement Agences	MWRD	USACE	1808	изера	USFWS	SHAWYOST	Supporting Agencies"
Incident Management			0					0	0	0	
Operations	ं	0	٥	೦	ं	೦	0	ं	0	೦	្
Sites (Selection, Activation, Setup, Management)			۰		0						
Communications	ं	0	0	ं	ं	ं	0	0	0	0	ं
Waterway Shutdown			3.1			0	٥				
Lock and Dam Closure						0	្				
Site Staffing	0		•	0	0 -	0	ं	0	0	Õ	O
EDC Staffing	୍		0					0			
Lisison	ា	0	0	O	O	O		0	ं	Ö	0
Site Health and Safety		•	O								
Public Information and Media	0		0			Q	0	O			
Site Security				0	0		0				
Resource Management	ं	ं	0	ं	ं	0	୍	0	ं	О	ं
Science Advisory/Risk Analysis			0						0		
Offsite Environmental		0	្					O	٠		
Oost/Time Tracking	0	0	0	ं	ं	Ö	ं	0	0	0	
Procurement	0	ं	•	0	ं	Ō	0	Ω	0	O	೦

Obes not factor in weather or other unexpected event that may after or adoladational responsibilities to this rapid response

Legand: 🔘 = Support. Coordination, and Involvement 💎 🗢 = Primary Resconsibility

#### **Primary Rapid Response Planning Organizations**

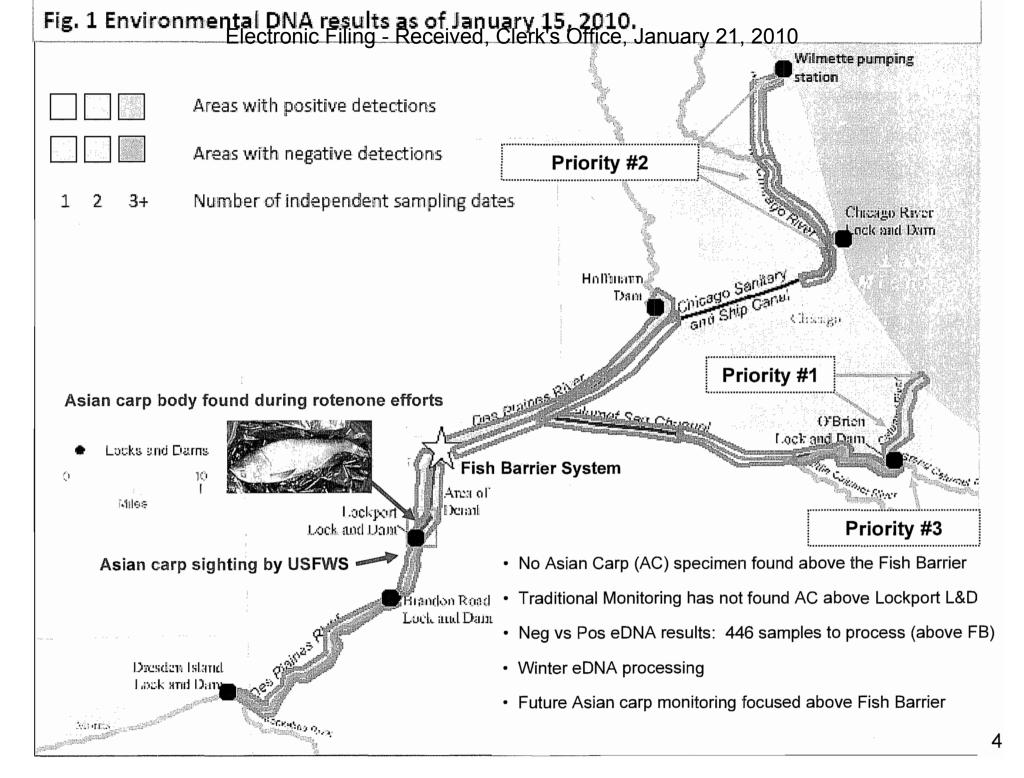
- IL Department of Natural Resources (IDNR)
- United State Coast Guard (USCG)
- Metropolitan Water Reclamation District (MWRD)
- US Army Corps of Engineers (USACE)
- US Environmental Protection Agency (USEPA)
- US Fish and Wildlife Service (USFWS)

#### Supporting Rapid Response Planning Organizations

- Great Lakes Fishery Commission (GLFC)
- City of Chicago
- International Joint Commission (IJC)
- Midwest Generation, LLC
- Affected Counties
- Other Support State and Provincial Agencies

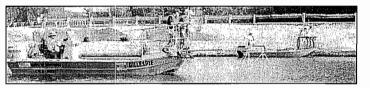
Bupperting acendes include QLFC and multiple states fisheries management acendes and Canadian provinces.

EOC Emergency Operations Center



## EASTA FILICARPIVM OFFIT OFFITS

#### **Electrofishing & Netting**



**USACE & USFWS & IDNR** 

**eDNA** 



USACE - Notre Dame

**Intensive Netting** 



**IDNR** - Contract



~55,000 lbs Common Fish

### **eDNA Validation Efforts**

Recent Rapid Response (Piscicide)





One Bighead Carp

## Near Term (Phases I-III)

- Phase I = Field Tests (Fishing, Rotenone & Netting)
- Phase II = Lab QC completed by EPA (Dec 2009)
- Phase III = Lab Testing (ERDC): Feb 2010
- Confirm eDNA accuracy to detect presence
- Test whether eDNA detects common carp/other

### Longer Term (Phase IV)

- Comprehensive Field Experiment (ERDC)
  - Will take several months (target Jun 2010)
  - Study will consider presence & population abundance

## Comprehensive Planto, Address, Asian, Carp Migration

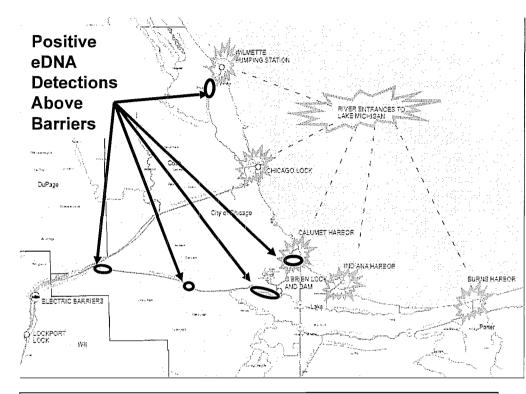
#### **Short-Term (before warm weather):**

- Continue monitoring where winter conditions permits (All)
- Process on hand eDNA samples above Fish Barrier
- Finalize plans to prepare for near term efforts (All)

#### Near - Term (thru end of 2010):

- Track leading edge of movement (USACE, FWS, IDNR)
- Prevent migration with barriers and other operational changes (USACE) & rotenone (IDNR) as needed
- Prevent fish bypass from flanking waterways (Des Plaines/I&M) (USACE)
- Coordinate investigation of risk posed by towboat and barge ballast/bilge water (**USCG**, FWS)
- Investigate new technologies/controls (DOI)
- Nest State AIS management plans (USFWS)
- Assessing new biological/toxicant controls (USGS)
- Initiating public/stakeholder prevention outreach program
   (USFWS)
- Funding to support actions including technology development
   (USEPA)

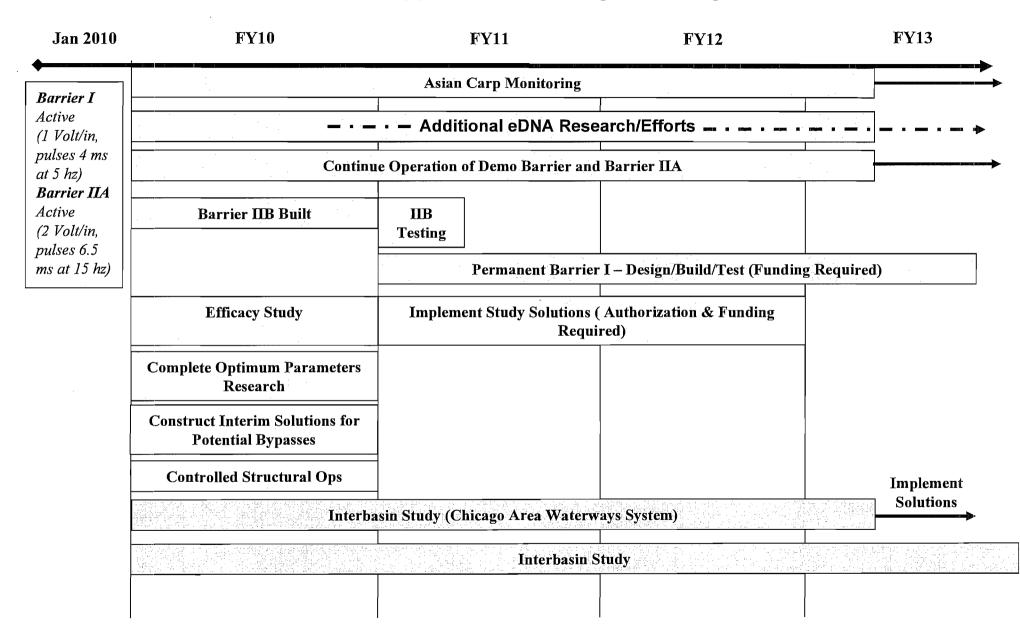
# Multiple Agencies Working Within Full Authorities to Fulfill Common Goal



#### Long-Term (2011 and beyond):

- Complete Interim Interbasin study/EIS focusing on Chicagoarea access points (USACE)
- Complete Final Interbasin study/EIS (USACE)
- Screening additional measures to include secondary fish barriers (AII)
- Implement chosen recommendations (AII)
- Increase species-specific controls (AII)

## USACE Strategyeror, Deterrifie, Arsumigration



## Electronic Film pactved, receired in the sary 21, 2010

## Flooding:

- Flood Damage Reduction Structures
- TARP Impacts
- Property Loss / Damage (\$B)
- Loss of Life

## **Public Health & Safety/EM:**

USCG/DHS/Chicago Fire & Police

#### Commerce / Economics:

- Transportation System Upset
- Critical Infrastructure
- Revenue Impacts
- Job Impacts

## Water Quality:

■ TARP Impacts

#### **Recreation / Tourism:**

- Navy Pier
- Great Lakes Shoreline
- Great Lakes Fishing

## **Great Lakes Ecosystem:**

- Asian Carp (AC) Adaptability
- AC Impacts to Shoreline and Tributaries
- AC Impacts to Great Lakes Fisheries (\$B)