East Chicago
WATERWAY MANAGEMENT DISTRICT

East Chicago Waterway Management District

2016 Communicator

This Communicator is being sent to property owners along the East Chicago waterway being assessed an annual user fee.

About the East Chicago Waterway Management District (ECWMD)

ECWMD is a district created in 1994 in accordance with Indiana State law (I.C. 8-10-9) to, among other things, manage and supervise the industrial, commercial, and recreational development of the waterways in the City of East Chicago. ECWMD's boundary is formed by an imaginary line one-half (1/2) mile distant from the center line of any waterway in all directions. In 2010, the ECWMD began assessing user fees to accomplish its statutory purposes. For more information on the ECWMD, please visit our website at www.in.gov/ecwmd/.

The following is an update of ECWMD's two marquee projects:

1. **East Chicago Waterways Clean-up Project**
2. **Navigational Dredging Project**

1. East Chicago Waterway Clean-up Project

Decades of industrial and municipal discharges have contaminated sediments in the Grand Calumet River and Indiana Harbor Ship Canal. Past sediment testing has detected contaminants ranging from ammonia, arsenic, cyanide, E-coli, PCB's, oil and grease, lead and pesticides to name a few. The contamination of the waterways has disrupted economic development and recreational use for decades.

In December of 2013, ECWMD entered into a Project Agreement with EPA under EPA's Great Lakes Legacy Act (GLLA) program to perform a Remedial Investigation (RI), Feasibility Study (FS) and Remedial Design (RD) for parts of the Grand Calumet River that have not been remediated and parts of the Indiana Harbor Ship Canal that the Army Corps of Engineers does not plan to dredge for navigational purposes. See Figure (1) for an illustration of the project area.

ECWMD hired Tetra Tech (TT) to provide the engineering and design oversight for the project. TT has extensive experience on similar projects along the Grand Calumet River with a great performance record with the EPA.

To date, the project team has completed the remedial investigation, feasibility study and the final remedial design – reference figure (1) for a summary of the selected design and estimated costs for the specific section of the waterway.

In order to best obtain community and stakeholder input on the final design, the project team developed a Community Engagement Plan (CEP). Some of the CEP initiatives/tasks included:

- Posting the CEP on our website at www.in.gov/ecwmd/,
- Preparation and distribution of a fact sheet summarizing the clean-up alternatives and selected design.
- Presentation of the clean-up alternatives and selected design to adjacent landowners (i.e. payers of user fees) for feedback, which was held on April 23, 2015.
- A 30 day public comment period that included announcements in local newspapers, public access to RI, FS, and RD documents, and a public meeting held on June 25, 2015.
- Summary report of public questions/comments drafted and posted on ECWMD website.
- Preparation of final design fact sheet which will be posted on our website.

Project Cost Summary

Under the GLLA program, the local sponsor is obligated to contribute at least 35% of the total project cost either through cash contributions or allowable in-kind contributions, and 65% of the cost is provided by federal GLLA funds. The Legacy Act funding has created a great opportunity to leverage local dollars for vital environmental projects.

Remedial Investigation, Feasibility Study, and Remedial Design Cost Summary
We expect the RI, FS, and RD project to be completed within the original budget of $2,000,000. As a reminder, 65% or $1,300,000 is committed by federal GLLA funds and the balance, 35% or $700,000 is committed by the local sponsor/ECWMD. Primary funding for ECWMD's $700,000 (35%) share is from collected annual user fees.

Clean-up/Remediation Cost Summary
As depicted in figure (1), the remediation cost for the selected design for the areas within East Chicago is estimated at $39.3 million. Assuming a 35% cost share basis, the local sponsor will have to contribute approximately $13.8 million through cash contributions and/or allowable work-in-kind. The project team is working hard to leverage and secure funding for the clean-up/remediation phase. Funding sources we are exploring include:

- Local industries/stakeholders as partners – industries/stakeholders that have ongoing work or future work that benefit the waterway clean-up objectives may count towards in-kind contributions. If the project benefits the waterway and qualifies as in-kind, no additional work or cost is required of the industry/stakeholder; however, the industry/stakeholder will have to give permission to allow the project to count towards in-kind in the form of a

partnership agreement. As of this writing, BP is the only local industry/stakeholder that has signed onto a partnership agreement allowing qualifying work along the waterway to count towards in-kind.

If you are interested or know someone who may be interested in entering a partnership agreement, please contact Fernando M. Treviño, ECWMD Executive Director, at (mobile) 219-741-7714, or fmtconsulting@aol.com; or Diana Mally, EPA Project Manager, at 312-886-7275, or mally.diana@epa.gov.

- User fees collected by ECWMD.

- Reimbursement monies and credits that may be owed by the Army Corps of Engineers for past payments made by ECWMD for the construction of the CDF.

Several Expected Long-term Benefits of Clean Waterways

- A reduction of toxics released into the Lake Michigan
- A reduction of human and ecological risks
- Improved aquatic habitat
- Improved water quality
- Improved conditions for fish and wildlife
- Improved aesthetics – clean environmental conditions will allow wildlife to thrive – birds, fish, and vegetation.
- Increase opportunities for business development and recreational use.
    - Studies of similar projects indicate a potential return of investment in the range of 6 to 1, including increasing property values.
    - A clean canal/river will enhance recreational opportunities and use.

2. Navigational Dredging Project

Due to the contaminated sediment in the canal and a lack of a suitable disposal facility, the Indiana Harbor Ship Canal (IHSC) had not been dredged since 1972. The contaminated sediment in the canal is not suitable for open water disposal into Lake Michigan, nor is it suitable for unconfined upland disposal or beneficial use. The consequence of the inability to dredge for such a long period of time is a build up of sediment in the canal which impacts the efficiency of deep draft commercial shipping. To provide a suitable disposal site, the Army Corps of Engineers designed and constructed a Confined Disposal Facility (CDF) located in East Chicago with the current capacity to store up to 2.7 million cubic yards of dredged contaminated sediment from the IHSC.

The dredging project is designed to dredge and dispose of sediment in a way that is safe to human health, improves the environment, and is economically beneficial. The commercial benefit of the navigational dredging project will be a "deeper" canal enabling a more economical and cost effective means for deep draft commercial shipping through the Indiana Harbor Ship Canal. The navigational dredging will have fortuitous environmental benefits resulting from a cleaner canal which will be taken into consideration in the final design.

Following the completion of the CDF construction in 2011, the Corps began dredging the IHSC in the fall of 2012. Dredging activities continued every year since. To date, the Corps has dredged approximately 926,876 cubic yards of sediment. The dredging activities are scheduled to resume in the summer of 2016. See attachment (2) for more information regarding dredging work completed to-date and future planned dredging. **The Corps plans to schedule their annual public dredging meeting prior to commencing the 2016 dredging season. Once the date of the public meeting has been set, the date/time/place of the meeting will be advertised in the local newspapers.**

The ECWMD serves as the local sponsor to companies and private owners to facilitate dredging of their docks and/or property by the Corps – costs affiliated with these dredging activities and storage in the CDF are paid by the company/private owners. The ECWMD also communicates with the Corps the concerns and issues voiced by the local community and stake holders related to the dredging and CDF construction/maintenance activities. For additional information on the navigational dredging project, please visit the Corps' website at www.lrc.usace.army.mil/Missions/CivilWorksProjects/IndianaHarbor.aspx

If you have any questions, concerns, or issues with the Dredging Project, CDF project/activities, or the clean-up efforts described above, or if you would like to learn more about the possibility of dredging material on or near your property, please contact Fernando M. Treviño, ECWMD Executive Director, at (mobile) 219-741-7714, or fmtconsulting@aol.com. You may also visit us at www.in.gov/ecwmd/.

Sincerely,

Fernando M. Treviño
ECWMD, Executive Director

John Fekete/oc

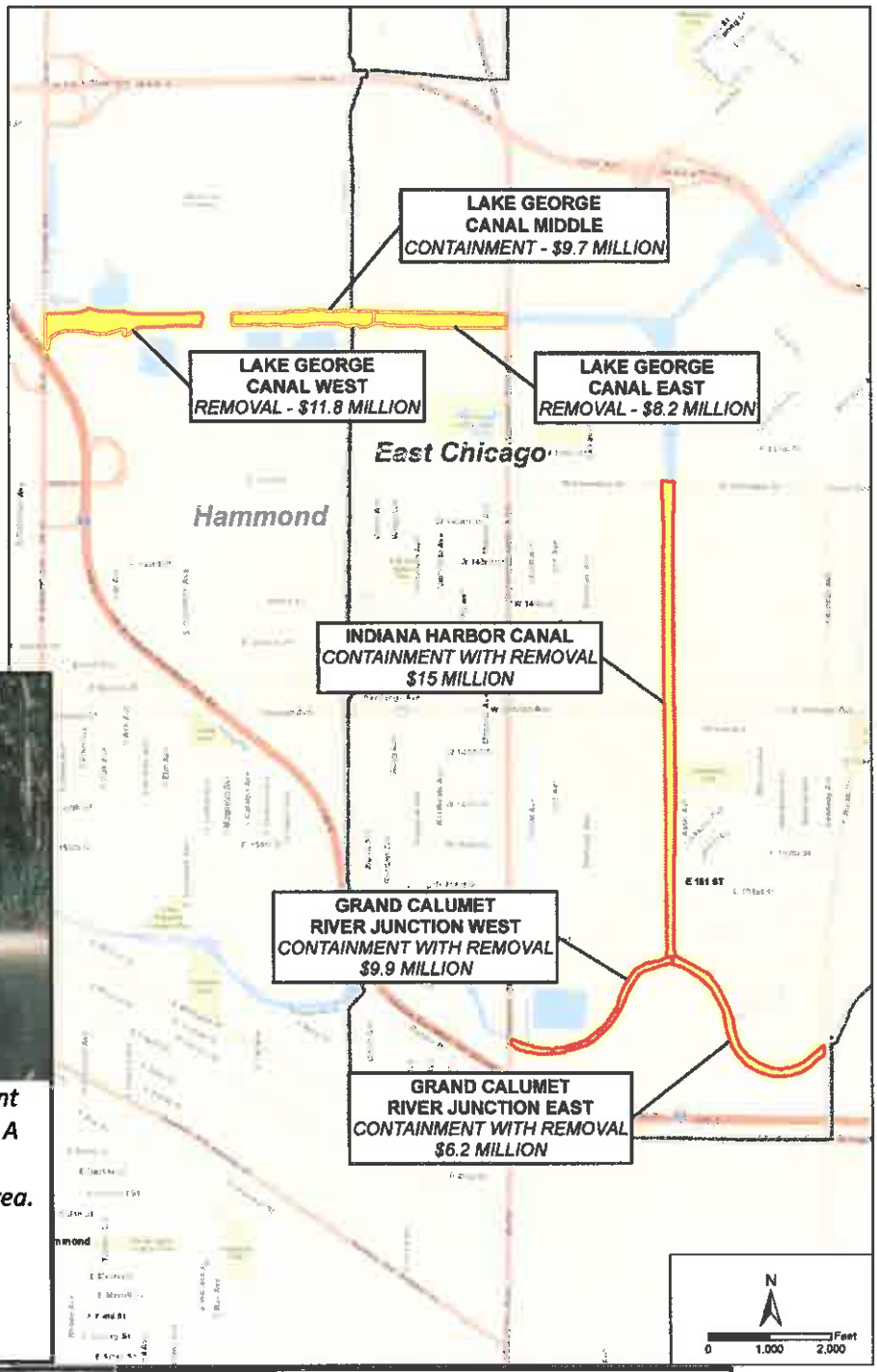
John Fekete
ECWMD, President of the Board

cc: ECWMD Board of Directors
Ellen Gregory, ECWMD Board Attorney
Diana Mally, EPA Project Manager
Mike Nguyen, Army Corps of Engineers, Project Manager

Figure 1 - March 18, 2016

Cleanup Options

Several cleanup options were evaluated during the investigation and feasibility phases. Containment, removal or a combination of both were the options selected and will be used to clean up the different areas of the river and canal. The cleanup option picked for each area is based on sediment (mud) testing in the water and conditions in each of the areas. Figure 1 shows the type of cleanup that will be done in each area and the estimated cost.



Containment. *This photo shows the equipment used to contain the polluted mud in the river. A cover of one or more layers will be used depending on the specific conditions of the area. Sand and other materials, such as clay and activated carbon will contain the sediment. A layer of gravel will be put on top to prevent erosion.*

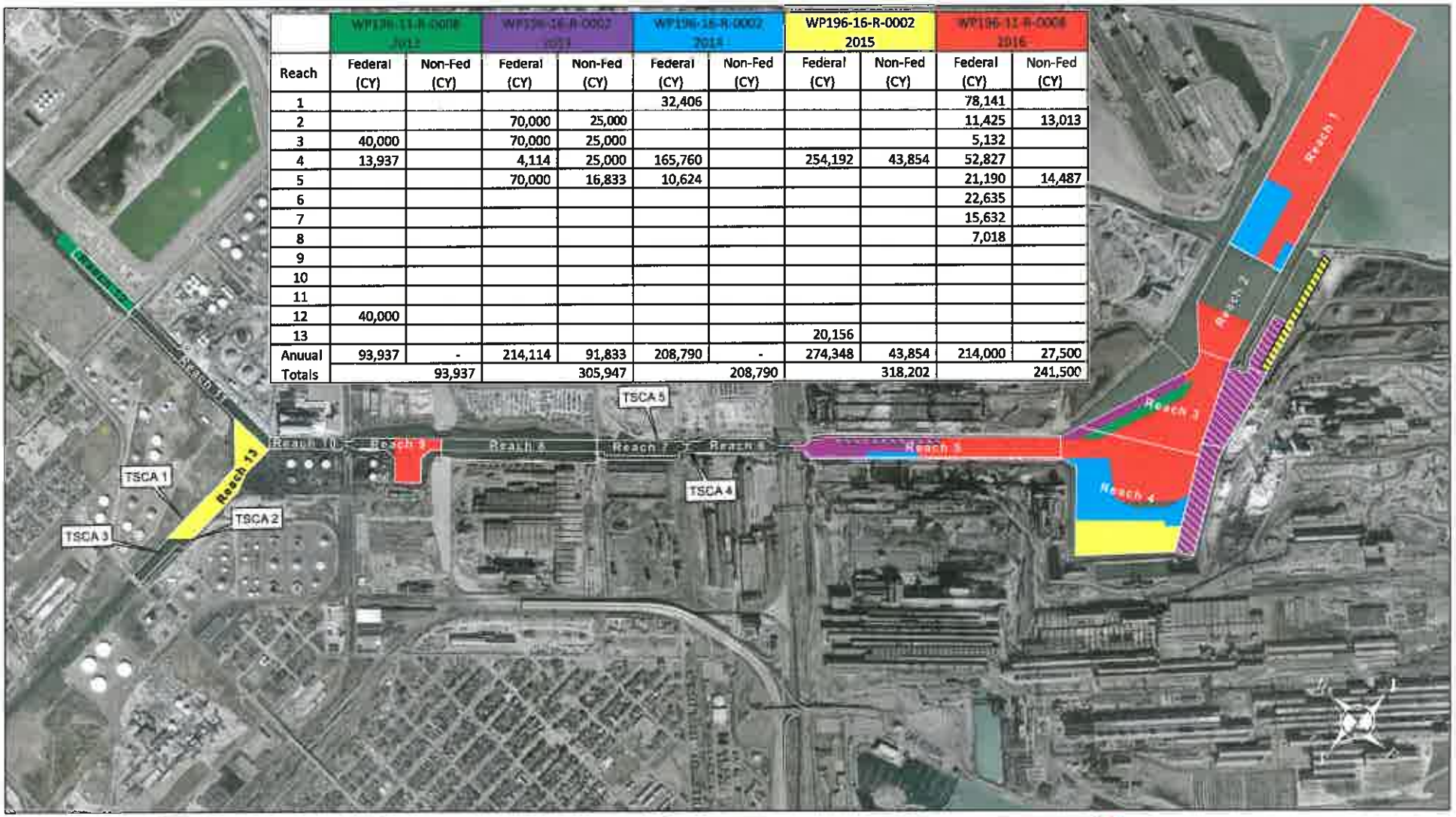
Removal. *The photo to the left shows the equipment used to remove the polluted mud. This process is called hydraulic dredging. The mud is removed from the river and pumped through a pipeline that sends it to a separate area to dry out.*

The wet mud is pumped into tubes made of special fabric, which trap the polluted mud and drain excess water.

Once dry, the polluted dirt is put into trucks and then taken to an off-site landfill that is approved by EPA.

FIGURE (2)

	WP196-11-R-0008 2012		WP196-16-R-0002 2013		WP196-16-R-0002 2014		WP196-16-R-0002 2015		WP196-11-R-0008 2016	
Reach	Federal (CY)	Non-Fed (CY)	Federal (CY)	Non-Fed (CY)	Federal (CY)	Non-Fed (CY)	Federal (CY)	Non-Fed (CY)	Federal (CY)	Non-Fed (CY)
1					32,406				78,141	
2			70,000	25,000					11,425	13,013
3	40,000		70,000	25,000					5,132	
4	13,937		4,114	25,000	165,760		254,192	43,854	52,827	
5			70,000	16,833	10,624				21,190	14,487
6									22,635	
7									15,632	
8									7,018	
9										
10										
11										
12	40,000									
13										
Anuual	93,937	-	214,114	91,833	208,790	-	274,348	43,854	214,000	27,500
Totals		93,937		305,947		208,790		318,202		241,500



Legend

- 2012, Federal
- 2013, Federal
- 2015, Federal
- 2016, Non-Federal
- 2013, Non-Federal
- 2014, Federal
- 2015, Non-Federal
- 2016, Federal

1 inch = 1,250 feet

0 370 740 1,480 2,220 2,960

Feet

U.S. Army Corps Of Engineers ®
Chicago District

Indiana Harbor
Dredging Volumes by Year

For Official Use Only
February, 2016

Chicago District, U.S. Army Corps of Engineers

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