SCOPE OF WORK FOR A FEASIBILITY STUDY & REMEDIAL DESIGN OF TSCA- LEVEL PCB CONTAMINATED SEDIMENTS IN THE INDIANA HARBOR CANAL EAST CHICAGO, INDIANA

Background

The Grand Calumet River (GCR) and Indiana Harbor Canal (IHC) were identified in 1987 as an Area of Concern (AOC) in the Great Lakes by the International Joint Commission (IJC). The Grand Calumet River AOC has a long history of ecological degradation and pollution that continues into the present. Sediments contaminated with PCBs, heavy metals, and PAHs have contributed to multiple beneficial use impairments (BUIs) within the Grand Calumet River AOC. The site was classified as an AOC because it was found to have impairments for each of the fourteen beneficial uses evaluated by the IJC.

Efforts have been underway for the past several decades to limit or remove the sources of pollutant loading to the GCR and IHC. However, legacy contaminated sediment still remains as a source of impairment to beneficial uses for the waterway.

Under the Great Lake Water Quality Agreement, a Stage 1 Remedial Action Plan (RAP) for the Indiana Harbor Canal, the Grand Calumet River, and the Nearshore Lake Michigan was completed in 1991. Updates to the RAP have been periodically performed, with the most recent Update to the Stage 2.5 RAP developed in 2012. The RAP identifies that the sediments in the Indiana Harbor Canal need to be addressed.

The project area is bounded by the Indiana Harbor Canal. The FS and RD will prioritize the remediation of TSCA-level PCB contaminated sediments (total PCB concentrations greater than 50 mg/kg) in the Indiana Harbor Canal (Figure 1). Figure 1 shows five areas of TSCA-level PCBs that will be targeted, but other areas within the Indiana Harbor Canal may be considered as part of this project.

A potential future sediment remediation project will address several BUIs including: restrictions on dredging activities; bird or animal deformities or reproductive problems; degradation of fish and wildlife populations; and fish tumors or other deformities.

Purpose

The purpose of this project is to complete a feasibility study (FS) and remedial design (RD) of TSCA-level PCB contaminated sediments in the Indiana Harbor Canal, in East Chicago, Indiana (see Figure 1).

The objective of the FS will be to evaluate remedial alternatives and support selection of a remedy that is protective of human health and the aquatic environment and will move the project toward remediation, contributing to the eventual removal of beneficial use impairments (BUIs) and delisting of the Grand Calumet River Area of Concern (AOC). The FS will build upon the data collected under previous efforts conducted by the USACE, as well as on data collected by other entities. The FS will evaluate remedial options to address TSCA-level PCBs in contaminated sediments. The RD will be completed based upon the recommended alternative developed in the FS.

The FS/RD will be accomplished through a partnership between the Indiana Department of Environmental Management (IDEM), the Indiana Department of Natural Resources (IDNR), ArcelorMittal USA, LLC, and the U.S. Environmental Protection Agency (US EPA), represented by the Great Lakes National Program Office (GLNPO), and their contractors and representatives.

Project Objectives

GLNPO, IDEM, IDNR, and ArcelorMittal USA, LLC, as partners, plan to conduct an FS/RD with the following objectives:

- Complete a Feasibility Study of the full project reach. A FS will be prepared that develops and evaluates various remedial alternatives. After identifying candidate alternatives, the FS will assess how each alternative is likely to influence the BUIs, as well as short-term and long-term effects of each alternative on human health and the environment. The FS will provide a recommended alternative based upon the comparative criteria.

- Complete a Remedial Design based upon the recommended alternative developed in the FS.

- Engage local stakeholders in support of a remedial design and action in the project area.

Funding

IDEM, IDNR, and ArcelorMittal USA, LLC will serve as the non-federal sponsor for this Great Lakes Legacy Act project with a 35% non-federal share. EPA will fund the 65% federal cost share for the project. The total estimated cost of the project is $750,000.

IDEM, IDNR, and ArcelorMittal USA LLC will provide a combined contribution of $262,500, which represents the 35% non-federal sponsor contribution. EPA is anticipated to fund the remaining $487,500.

Project Milestones

The FS will be initiated following project agreement (PA) signatures with an effort to award a task order to EPA's contractor within six weeks of signing the PA. Remedial design including the permit application process will also proceed utilizing an EPA contractor.

Deliverables

Anticipated deliverables included during feasibility study and remedial design may include:

- Feasibility Study Report
- Basis of Design Report
- Final Design Drawings

Figure 1

TSCA-Level PCB Contaminated Sediment Areas to be Prioritized in the Indiana Harbor Canal in East Chicago, Indiana.