C A R E

CITIZENS ADVISORY FOR THE REMEDIATION OF THE ENVIRONMENT

CARE Meeting Notes – August 30, 2019

Friday, August 30, 2019, 9:30 AM – 12:30 PM CDT
Student Union and Library Building, Room 150E
Purdue University Northwest – Hammond Campus

In Attendance: Jennifer Birchfield (Urban Waters Federal Partnership); Michelle Caldwell (IDEM); Peg Donnelly, Kristen Isom, Katie Bockwoldt, Elizabeth Hinchey Malloy (U.S. EPA); Leslie Dorworth (IL/IN Sea Grant); Joe Exl (NIRPC); John Fekete (CARE Co-chair); Paul Labus (TNC); Kay Nelson (NWI Forum); Bri Ciara, Emily Stork (IDNR); Maureen Turman (NiSource); Joe Shaw (IU-Bloomington); Ann St. Amand (PhycoTech); Ashley Overton (City of Gary)

Via phone: Hala Kuss, Dav Parry (IDEM); Carl Wodrich (IDNR); Victoria Wittig (Save The Dunes); Dan Sparks, Will Tucker (U.S. FWS); Fernando Treviño (City of East Chicago); Lee Humberg (USDA)

Public Attendees: None

1. **Introductions:**
   John Fekete opened the meeting and took roll of those in person and on the phone.

2. **Sediment Management Actions (BUIs #1-2, #4-7) Update**
   a. **Lake George Branch Middle & East**

      The East Portion extends from Indianapolis Boulevard in East Chicago to the CSX railroad bridge, including Reach 12 of the federal navigation channel as designated by the U.S. Army Corps. The Middle Portion extends from the CSX bridge to the BP land bridge.

      The Great Lakes Legacy Act Project Agreement between EPA and the non-federal sponsors (the East Chicago Waterway Management District, Atlantic Richfield Co., and BP) has been approved. Negotiations are underway to amend the PA to add additional project work. The amendment has been approved by the ECWMD and AR/BP's management is currently reviewing it. If approved by all parties, the amendment will allow for the inclusion of more than $8 million in additional non-federal cost share for the project.

      BP has begun work to remove obstructions and construct a sheet pile wall along the canal. This work is expected to be completed in 2020. EPA's contractor will then conduct dredging and capping of the East Portion and capping of the Middle Portion. Final design work for the dredging and capping portions of the project is underway. The ECWMD has received approval from the U.S. Army Corps to place dredged material from the Lake George East Project into the adjacent Confined Disposal Facility (CDF). This approval is contingent on the schedule being met for the source

control work. Current indications are that this work may be delayed, which would not allow the dredging to take place prior to the CDF dike raise scheduled for 2021-2022. The project agreement does allow for this, but costs would increase, due to the need for offsite disposal of dredged sediments.

b. East Branch, Phase II

East Branch Phase II includes the dredging and capping of 2.5 miles of the East Branch of the Grand Calumet River between Cline Avenue and the US Steel Reach in Gary, as well as closure of the Ralston Street Lagoon in Gary.

The 30% Remedial Design for this project has been completed and is undergoing review by U.S. EPA. This work should help refine the project costs and design specifications. It is currently anticipated that additional nonfederal match will be required to proceed into the project phase.

c. Junction Reach

The Junction Reach includes approximately 1.5 miles of the Indiana Harbor Ship Canal south of Columbus Drive and approximately 1.4 miles of the Grand Calumet River between Indianapolis Boulevard and Kennedy Avenue. It is currently anticipated that capping will be utilized for the portion of the Grand Calumet River from the Junction to Kennedy Avenue and both dredging and capping, for the remainder of the project area.

A 70% design of the Junction Reach was completed in 2015, with the report being released in early 2016. EPA, IDEM, and the East Chicago Waterway Management District are still working to identify non-federal cost share for the project. The agreement signed between AR/BP and the ECWMD includes the provision of a portion of the non-federal cost share overmatch on the Lake George Branch Middle and East Project to this reach.

In response to a CARE Member question from Paul Labus, John Fekete stated that the Buckeye wetlands (at the southeast portion of the Junction Reach) are not being addressed under this project at this time. Paul also asked EPA if there was an update from Superfund on USS Lead. Kristen Isom promised to follow-up and provide information to the group.

d. Dredging of Navigational Channel

The contractor conducting the congressionally authorized navigational dredging project in the Indiana Harbor Ship Canal on behalf of the US Army Corps has been working to complete the dredging of isolated areas containing contaminated sediment with PCB levels above 50 parts per million (ppm). Disposal of these sediments is regulated by the Toxic Substances Control Act (TSCA); IDEM and EPA issued final risk-based

approvals to the U.S. Army Corps for the disposal of this sediment in December 2018. Dredging and disposal of the TSCA-regulated sediments occurred, beginning in July. This also involved the placement of a stone cap. Cover material is currently being dredged from the LTV dockfaces adjacent to Reaches 2 and 3. The contractor will then work to complete the dredging of the approximately 229,000 cubic yards of sediment slated for removal in 2019.

The Army Corps estimates one to two additional years of dredging will be necessary to clear the remaining sediment backlog. A two-year hiatus in dredging activities (2021-2022) is currently planned, beginning following the next dredging season, to allow for raising the dikes surrounding the CDF. This will increase the sediment capacity of the CDF to 4.8 million cubic yards from the current 2.7 million cubic yards.

e. BUI #7 Removal Target Update

IDEM is currently working to revise the removal target for BUI #7: Restrictions on Dredging Activities. The initial draft concept involves an action-oriented target anticipated to be clearer and more readily measurable than the existing target, which relies on a comparison between the disposal mechanism for contaminated sediment within the Indiana Harbor Ship Canal and that of other, non-AOC confined disposal facilities. Once the draft target has been further refined, it will be vetted through the CARE Committee.

3. Habitat Management Actions (BUI #3 & BUI #14) Update

a. Management Action #1 – Dune, Swale, and Riverine Restoration

The IDNR, Nature Conservancy (TNC), and Lake County Parks crews continue to work together to conduct restoration work on the various properties. There are currently no contractors performing work in Year 4 of the project; however, TNC is investigating the use of a potential contractor. Orbis Environmental Consulting has been conducting monitoring at the Lake George (Hammond) and Roxana (East Chicago) sites. Revisions to the new monitoring protocol developed by Orbis were finalized and the project QAPP was updated and approved by IDEM QA staff. Monitoring is currently underway using the new protocol.

A time extension may be needed to complete work on portions of several properties. Because of the lack of cold winters over the first few years of the project, it took nearly three winters to get through the woody tree and shrub clearing and the weed pressure and invasive seedbank continues to be intense in some areas. IDNR contacted IDEM to discuss the matter and the agencies have informed EPA. IDNR will work with IDEM, Lake County Parks, and The Nature Conservancy to assess whether a time extension will be needed and whether the work can be completed with existing funds.

b. Management Action #2 – River Corridor Establishment

IDEM sent out 20 access agreements in late June. Of those, two were postmarked return to sender, one turned out not to be the correct owner of record for the property, and five have been signed. Additional follow-up action was taken in August to contact ten of the property owners to whom agreements were sent out, but not received. In addition, IDEM is currently working with the City of Gary to finalize access agreements for several parcels, most notably for those within the footprint of the Gary Airport. IDEM submitted a draft project application to U.S. EPA in July for feedback. The agency plans to submit a final project application once additional agreements, including those involving the City of Gary, are signed.

c. Management Action #3 – Lake George Branch Wetlands Restoration

IDNR observed the work in July and stated that this project is going well and the properties are looking better each year. IDNR's contractor, Conservation Land Stewardship, has implemented invasives control during 2018 and 2019. In July, IDNR requested a time extension (from March 30, 2020 to December 31, 2020) and submitted a request for $80,000 in supplemental funding for additional weed control. Assuming the agency receives the supplemental funds, it intends to extend the CLS contract.

Orbis Environmental conducted project monitoring in August and a monitoring report is due to IDNR by the end of 2019.

d. Management Action #4 – Prescribed Fire Plan/Contractual Burns

Prescribed burns have been completed on nine burn units to date, covering a total of 270 acres. During the next burn season (fall 2019 through spring 2020), four units, covering approximately 80 acres, are planned.

e. Management Action #5 – Pine Station Ponds and Oxbow

IDNR has submitted a funding application to U.S. EPA for $100,000 to finalize a project design and complete permitting applications for the Ponds portion of Pine Station. As part of the design, IDNR will seek to ameliorate sand erosion in the sedge meadow on the south end of the property, west of the Ponds. Assuming the funding award is received October 1, IDNR anticipates it will take at least a year to complete the design and contracting, so there would be no construction until 2021.

f. Early Detections

Black swallow-wort (*Cynanchum louiseae*) has been seen within the Gibson Woods Nature Preserve in the last month. Despite an intensive search, sericea lespedeza has not been seen this year. There are no new non-native invasive species to report within the AOC.

4. Eutrophication (BUI #8) Update

Several CARE Committee members and IDEM staff met on May 2 with Paul Buszka, the Technical Review Lead for the Eutrophication BUI. He reviewed removal targets for this BUI utilized by other Areas of Concern, and previous research conducted within the Grand Calumet River, and proposed a four-part removal target:

1) A continuous criteria not specific to Eutrophication;
2) A limiting nutrient;
3) A periodic or continuous measure of cyanobacterial or algal nuisance potential;
4) A measure of biomass

In response, IDEM has produced a draft concept of a revised removal target. This is currently undergoing internal review and will be shared with CARE Members for feedback once it is in a more complete state.

5. Beach Closures (BUI #10) Update

IDEM and U.S. EPA staff met with representatives of the City of East Chicago on April 9. A set of action items was developed as a result of this meeting. The City has procured new equipment to improve its ability to groom the Jeorse Park and Buffington Harbor beaches. In addition, IDEM was able to repurpose funding to conduct a limited nearshore bird deterrence program in 2019. This consisted of four-hour shifts from June 5 – July 12, and one hour visits from July 13 through August 31. Initial indications are that Jeorse Park I, Jeorse Park II, and Whihala West beaches exhibited exceedance rates greater than 15 percent, with Whihala West exhibiting a higher exceedance rate and the East Chicago beaches, exhibiting a lower exceedance rate, than in 2018. Since the removal target calls for exceedance rates to be no more than 15 percent for three years out of the same five year period, the removal target cannot be met prior to 2021.

IDEM is also pursuing an upgrade to its BeachGuard program. The upgrade would allow for new features, including an improved mapping interface and sub-daily advisories. IDEM currently anticipates rolling out the upgraded system in time for the 2020 beach season.

6. Aesthetics (BUI #11) Update

Aesthetics monitoring has not been conducted during 2019; however, the same issues at the two identified monitoring sites, the U.S. Steel grate and the old Cline Avenue Bridge, still exist. Addressing the debris jam at the old Cline Avenue Bridge will require careful consideration, as phragmites and other invasive plants are present within the debris field during the growing season.

In addition, it is expected that many aesthetics issues within the Lake George Branch of the Indiana Harbor Ship Canal will be resolved with the completion of the Lake George Branch Middle and East Projects.

7. Plankton (BUI #13) Presentations

Michael introduced Drs. Ann St. Amand (PhycoTech) and Joseph Shaw (Indiana University – Bloomington Campus). Dr. St. Amand presented on the taxonomic work for the 24 sestonic plankton samples collected in June and August 2018 See her presentation on the CARE website. Among the key findings were that Wolf Lake, George Lake (particularly the South Basin), and the two Grand Calumet Lagoons samples were highly eutrophic. Wolf Lake in particular exhibited high levels of blue-green algae. In addition, there was a problem comparing the sites because of the varying habitats (e.g., lentic vs. lotic; inland vs. Lake Michigan) that were sampled. In particular, Dr. St. Amand cautioned against using Lake Michigan as a control for purposes of BUI removal. CARE Members suggested that the Little Calumet or Galien Rivers might be more appropriate controls. Dr. St. Amand also discussed various population measures, such as the Shannon-Wiener Index and Evenness, and their strengths and weaknesses. She favored planktonic indicators of disturbance, such as the presence of cyanobacteria, and grouping sites with similar communal characteristics.

Dr. Shaw's presentation discussed daphnia (water flea) species and their use in environmental toxicology. He then discussed the water samples for which he conducted acute and chronic toxicity bioassay work. All tests used 10 replicates. Results were measured relative to Lake Michigan and a COMBO water medium, although Dr. Shaw expressed concerns about using Lake Michigan as a control. For those June 2018 samples displaying significant differences in survivorship from a control, Dr. Shaw's lab conducted serial dilutions. They also conducted chronic tests on all samples. A good dose-response relationship was not seen, indicating noise for the most part; therefore, no dilutions were conducted using the August samples. Although there was no acute toxicity, there were subchronic effects seen at the WB1 and EB8 sites. Significant phytoplankton growth relative to a control was seen at the WB1 and WB2 sites. Dr. Shaw indicated that there may be some level of toxicity at these sites, but it wasn't acute. It may not even be within the scope of the AOC program, which typically focuses on pre-Clean Water Act (legacy) contaminants, such as heavy metals, dioxins and furans, PCBs, and polycyclic aromatic hydrocarbons (PAHs). There might also be benthic toxicity, since this study focused on water column, not sediment, effects.

Drs. Shaw and St. Amand then held an open discussion with CARE members. They suggested use of a different control site and monthly to biweekly sampling between May and September. They also suggested it would be useful if the late Dr. Tom Simon's samples could be tracked down, possibly from Indiana University or Ohio State University. They also suggested that it would be important to note the aquatic plant populations in the vicinity of the samples. CARE members discussed the history of the Grand Calumet River and the ways in which it had been modified by people. They also discussed recent improvements, such as dredging and capping projects and the completion of a basin to increase retention of discharges from combined sewer overflows (CSOs). There was also the suggestion of meeting to bring together all of the data held by various scientists working on AOC issues.

8. Meeting Adjournment

Due to the meeting running over time, CARE Members elected to adjourn the meeting.

Next Workgroup Meeting: To Be Announced