

**Zug Island Boat House**  
**Brian Zuehlk – President**  
**8539 West Jefferson Ave, Detroit, MI 48209**  
**Phone: 248-838-8398**  
**Email: [zuglifedetroit@gmail.com](mailto:zuglifedetroit@gmail.com)**

# Zug Island Boat House

## Navigating Contamination, Regulations, and Uncertainty

Two years ago we purchased vacant industrial waterfront property on the Rouge River. This small redevelopment project quickly became a lesson in environmental regulations, contamination, permitting, grant funding, and patience.

Today, I'd like to share what we've learned along the way

# Why Are We Here – Project Location

We're here today because this project involves developing a waterfront site for heated boat houses and a small-scale fuel dock. The site is in Delray, Detroit - one of the most environmentally burdened industrial corridors in the country. Located along the Rouge River at Zug Island, the area has been shaped by more than a century of heavy industry.

The real challenge isn't what we're building; it's what's below the waterline. Sediment contamination, dredging requirements, and regulatory coordination ultimately dictate what's possible on this site.

**On this project, it's not the drawings, it's the river that sets the rules.**



# Brief History of Delray and Zug Island

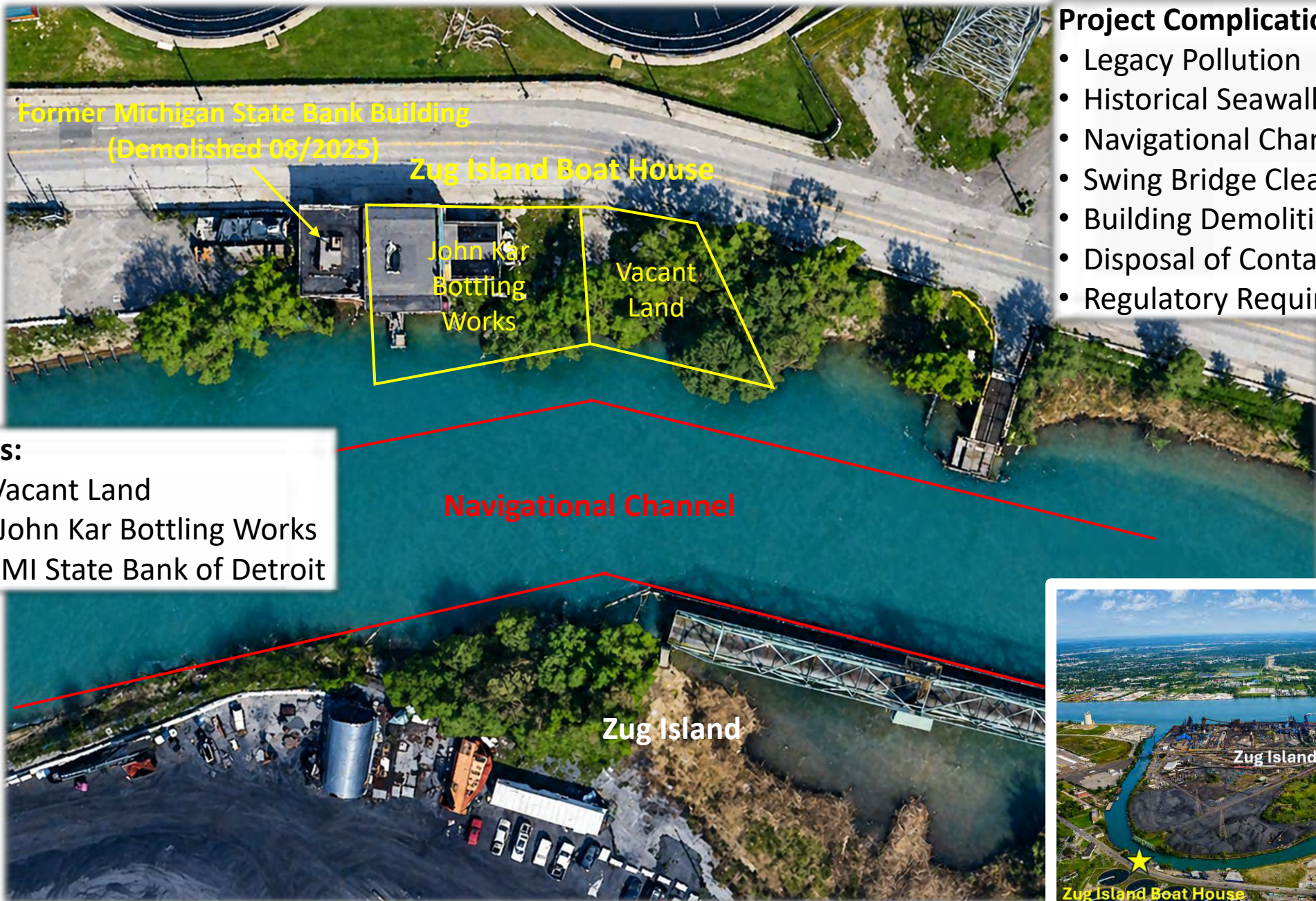
Before discussing the project, it's important to understand the setting. Delray was once wetlands and farmland along the Rouge River, but by the early 1900s its access to shipping and rail made it a hub for heavy industry.

Zug Island was engineered from that landscape and developed to support steelmaking and coke production long before modern environmental regulations existed. The result is a site shaped by more than a century of industrial activity, including legacy contamination, altered shorelines, and ongoing environmental management.

**We're working within over a century of industrial history that directly shapes the conditions we're dealing with today.**



# Location: Detroit Michigan – Old Delray Carbon Works Neighborhood



## Project Complications:

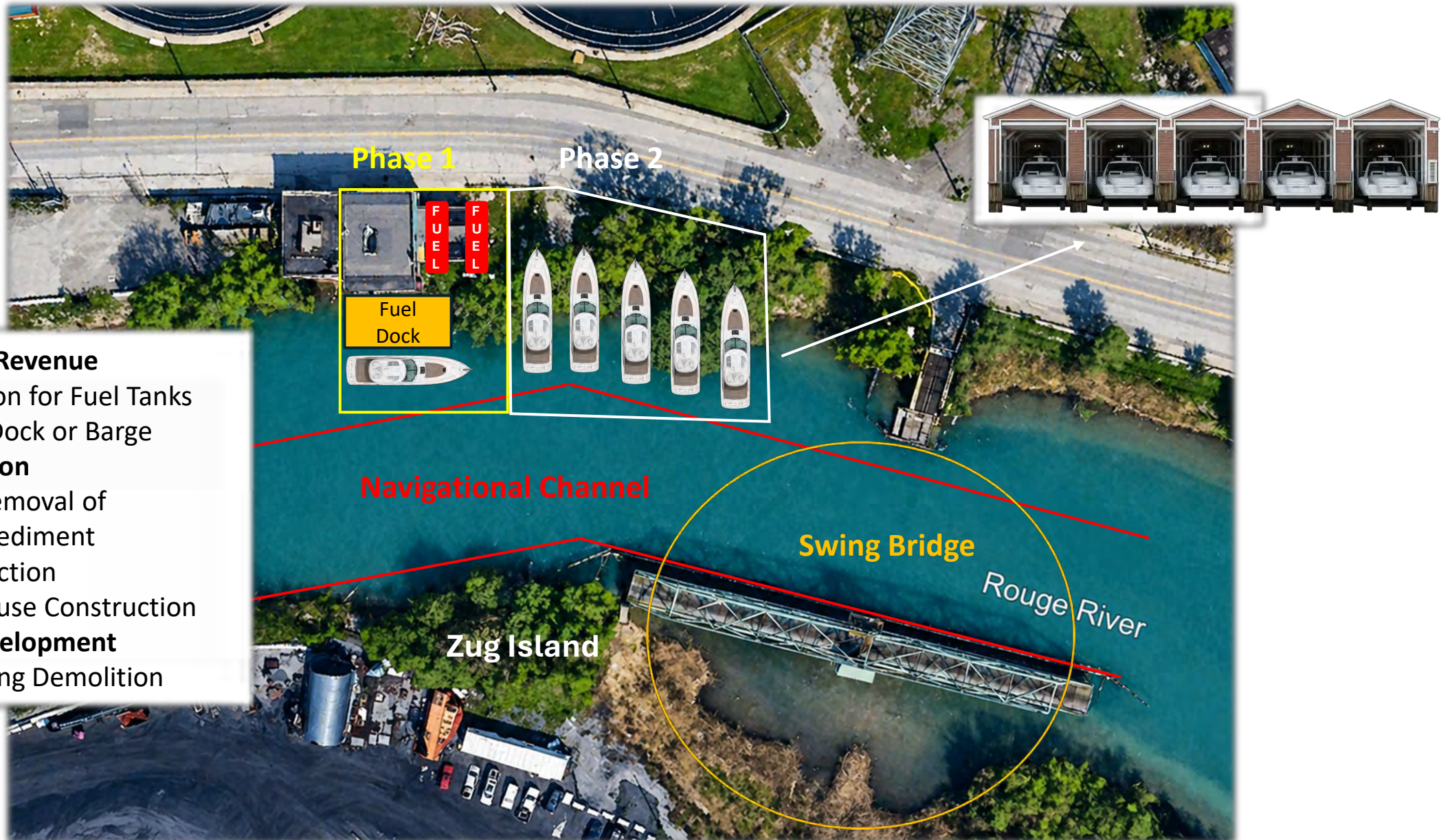
- Legacy Pollution
- Historical Seawalls and Docks
- Navigational Channel
- Swing Bridge Clearance
- Building Demolition / Asbestos
- Disposal of Contaminated Waste
- Regulatory Requirements

## Property Details:

- Historically Vacant Land
- Abandoned John Kar Bottling Works
- Demolished MI State Bank of Detroit



# Zug Island Boat House Project Concept



## Phase 1: Generate Revenue

- Partial Demolition for Fuel Tanks
- Install Floating Dock or Barge

## Phase 2: Remediation

- Dredging and Removal of Contaminated Sediment
- Seawall Construction
- Heated Boat House Construction

## Phase 3: Full Redevelopment

- Complete Building Demolition

# Lessons Learned - Purchasing Contaminated Waterfront Property

I am not presenting as an expert. I'm presenting as someone who had no roadmap and had to figure out where to begin. These are the lessons we learned navigating agencies, permits, grants, and environmental assessments.

## Brief Overview of Topics that will be Discussed:

- Purchasing Vacant Contaminated Property – What risks should be understood
- Where did we begin?
- Can it be developed? Is it too polluted? Is it even safe?
- EGLE – Joint Permit Pre-Meeting
- Phase I and Phase II Environmental Assessments
- Port Authority – Informal Discussion
- USACE - Navigational Channel
- Wayne County
- Dredging and Disposal
- Permitting
- Potential Grant Funding



# Pre-Application Meeting with EGLE – Purchasing Vacant Land



MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY

Requesting a Pre-Application Meeting through



A **Pre-Application Meeting** with **EGLE** was a necessary first step, especially when you don't have all the answers and are trying to understand the environmental requirements that will apply.

The EGLE staff were open, patient, and incredibly helpful. They provided guidance on how to move forward, what obstacles to expect, and were honest about the road ahead. One comment stuck with me:

**“I don’t want to scare you away from this, we work through these issues all the time, but I want you to know - it will be complicated.”**

**That turned out to be one of the most accurate statements anyone made during this project.**

This meeting may have been the single most important step in the entire project. We walked in with questions and left with direction. That quote accurately described the next two years of my life.

# Due Diligence: Phase I and Phase II Environmental Assessments

## Environmental Assessments are a critical part of the redevelopment process:

- Identify environmental concerns, protect the property owner, and provide a clear understanding of what may lie beneath the surface.

We personally funded the **\$3,500 Phase I Assessment** and successfully secured **\$15,000 in Wayne County Grant Funding for the Phase II.**

- The process required persistence, numerous meetings, and a lot of knocking on doors to move the application forward.

**The environmental work was not a hurdle to avoid,  
it becomes the roadmap that guides every major decision moving forward.**

Phase I Environmental Site Assessment  
8539 and 8545 W. Jefferson Avenue  
Detroit, Wayne County, Michigan

Brian Zuehlk

November 18, 2024

ASTI ENVIRONMENTAL



### TABLE OF CONTENTS

| Section                                                               | Page |
|-----------------------------------------------------------------------|------|
| Title Page                                                            | i    |
| Table of Contents                                                     | ii   |
| 1.0 EXECUTIVE SUMMARY                                                 | 1    |
| 2.0 INTRODUCTION                                                      | 3    |
| 2.1 Purpose                                                           | 3    |
| 2.2 Detailed Scope of Services                                        | 3    |
| 2.3 Significant Assumptions                                           | 4    |
| 2.4 Deviations, Exceptions, and Limitations                           | 4    |
| 2.5 Special Terms and Conditions                                      | 5    |
| 2.6 User Reliance                                                     | 6    |
| 3.0 SITE DESCRIPTION                                                  | 6    |
| 3.1 Location, Legal Description, Vicinity Characteristics             | 6    |
| 3.2 Current Use of the Subject Property                               | 6    |
| 3.3 Descriptions of Structures, Roads, Other Improvements on the Site | 7    |
| 3.4 Current Uses of Adjoining Properties                              | 7    |
| 3.5 Physical Setting Sources                                          | 8    |
| 4.0 USER-PROVIDED INFORMATION                                         | 10   |
| 4.1 Environmental Liens and Activity Use Limitations (AULs)           | 10   |
| 4.2 Search of Recorded Land Title Records                             | 10   |
| 4.3 Additional Records Provided by the User                           | 10   |
| 5.0 RECORDS REVIEW                                                    | 10   |
| 5.1 Standard Environmental Record Sources                             | 10   |
| 5.1.1 Discussion of Subject Property Listings                         | 11   |
| 5.1.2 Discussion of Sites of Potential Environmental Concern          | 12   |
| 5.1.3 Discussion of Orphan Sites                                      | 13   |
| 5.2 Additional Agency/Regulatory Sources                              | 13   |
| 5.2.1 Local Health Department                                         | 13   |
| 5.2.2 Local Fire Department                                           | 13   |
| 5.2.3 Subject Property Assessor/Tax Files                             | 13   |
| 5.2.4 Building Permit/Inspections                                     | 13   |
| 5.2.5 Zoning/Land Use Records                                         | 13   |
| 5.2.6 Oil and Gas Wells                                               | 13   |
| 5.3 Historical Use Information                                        | 14   |
| 5.3.1 Aerial Photographs                                              | 14   |
| 5.3.2 Sanborn Maps                                                    | 15   |
| 5.3.3 City Directories                                                | 15   |



- Phase II Environmental investigations identified contamination classifying the property as a **Part 201 Facility** under Michigan environmental law.
- Part 201 Facility** = Environmental contamination documented and managed under Michigan law.
- 800 Pages of environmental data.

# Informal Meeting with Detroit / Wayne County Port Authority

## Port Authority:

Early on, looking for guidance, we reached out to the Port Authority.

- Although I don't believe they have a formal meeting or review process, they were interested in the project and invited us downtown for a discussion.
- We learned about potential grant funding from Wayne County and EGLE, along with low-interest Port Authority loans for clean up purposes.

They gave us a couple of assignments when we left there that day:

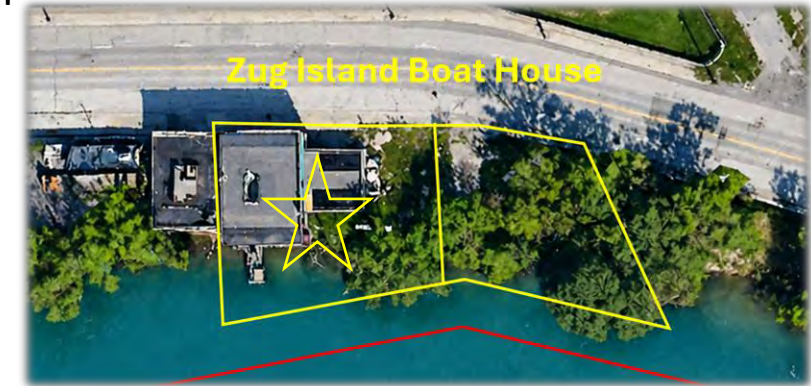
**Assignment 1:** *"You have a great story to tell, create a presentation describing the project and how you got to this point, you're going to need it"*

They were right, countless uses, and 30 revisions later, here we are at the MECC.

**Assignment 2:** *"You know that building next door is city owned right?" We didn't. "Go buy that building, why have 3 or 4 boat houses when you could have 8 or 10."*

Unknowingly, they were one of the biggest influencers in this project. 18 months later, we signed a purchase agreement with the city for the acquisition of the abandoned **John Kar Bottling Works Facility**.

We went from trying to develop a small slice of vacant waterfront, to a clean up operation involving an asbestos filled building built on top of the river. **This suddenly became O-So Complicated!**



# Dredging - Joint Permit Application EGLE and the USACE

## Joint Permit Application:

- The permit application itself was relatively straightforward; however, much of the supporting documentation requires specialized knowledge that can be difficult for the average applicant to obtain.
- **Environmental remediation is costly** and leaves little room for error or duplicate testing, which can quickly consume project funding. **Sediment sampling remains a key requirement** of the dredging permit process. Obtaining clear direction on the appropriate sampling approach is critical to advancing the project. This is where the Joint Permit process stalled.
- The distinction between Phase II grant funding for upland soils and environmental investigations below the Ordinary High-Water Mark (OHWM) remains an area where additional coordination and clarity would benefit applicants.

## Key Takeaway:

- Our biggest unanswered question remains funding and regulatory guidance for sediment investigations below the OHWM.



# Floating Dock or Barge - Joint Permit Application EGLE and the USACE

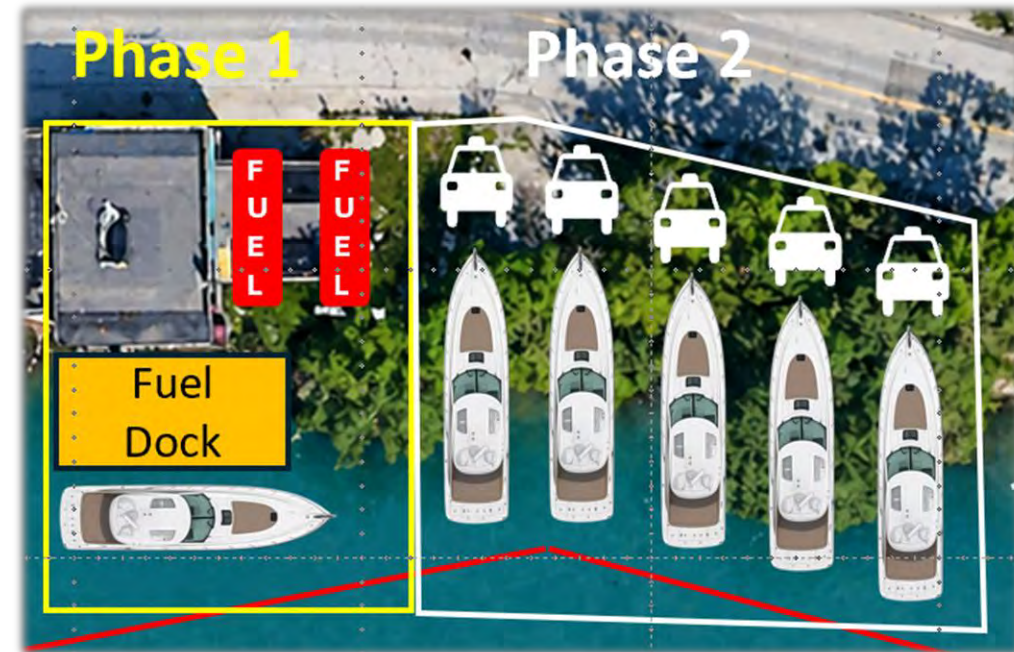
## Joint Permit Application: EGLE and the USACE (Continued)

With acquisition of the John Kar Bottling Works in process, the scope of the project changed, which also changed the scope of the Joint Permit Application. As the project evolved, we looked for a way to use the property while environmental work continues. The floating dock concept would provide an interim solution while dredging, demolition, and permitting continue.

We requested that the application type be changed to a floating dock or semi-permanent barge installation to be used as a fuel dock. EGLE and USACE agreed to the proposed revision. The goal would be to float the dock over the area planned for dredging. This would allow the property to be utilized while remediation issues are addressed and building demolition moves forward.

The purchase is currently in process, so hopefully within the next month, we can move ahead with the revised application and gain a better understanding of floating dock and barge requirements.

- Where can applicants find approved guidelines for floating dock flotation systems and mooring methods?





- 



# Phase I and Phase II Environmental Grant Funding - Wayne County and EGLE

**Grant Funding** was received from the Wayne County Brownfield Redevelopment Authority:

- Wayne County was extremely helpful in funding upland investigations.
- **Phase II:** Vacant property at 8539/8545 West Jefferson
- **Phase I and Phase II** for the John Kar Bottling Works Facility
- However, when the contamination extends below the ordinary high-water mark, funding responsibilities become less clear. Understanding that transition remains one of the most important unanswered questions for this project.
- For this project, **Wayne County funding was limited to upland investigations**, while investigations **below the OHWM** were directed toward **EGLE funding sources**

Findings from the upland investigations resulted in the vacant property being classified as a **Part 201 Facility**.



Connect. Build. Thrive.

## PHASE II ENVIRONMENTAL SITE ASSESSMENT

ZUG ISLAND BOAT HOUSE  
8539-8545 WEST JEFFERSON AVENUE  
DETROIT, MICHIGAN 48209

**PREPARED FOR:**  
WAYNE COUNTY  
BROWNFIELD REDEVELOPMENT AUTHORITY  
ATTN: LUCIUS ANTHONY  
500 GRISWOLD STREET, SUITE 2800  
DETROIT, MI 48226

**PREPARED BY:**  
DLZ MICHIGAN, INC.  
607 SHELBY STREET, SUITE 650  
DETROIT, MICHIGAN 48226

DLZ PROJECT NO.: 2545-7978-00

FEBRUARY 16, 2026

## Analysis for contaminants of concern, such as:

- PAHs (Polycyclic Aromatic Hydrocarbons)
- Metals (lead, arsenic, chromium, mercury)
- PCBs (Polychlorinated Biphenyls)
- VOCs (Volatile Organic Compounds)
- PFAS (Polyfluoroalkyl Substances)
- BTEX, GRO, DRO (Petroleum hydrocarbons)



# Zug Island Boat House – Site Photos

Before photos Oct 2024: Overgrown brush with tires, drums, camper shell, boat hull, steel shed, and foam scattered throughout.



# Zug Island Boat House – Site Photos

**After Photos Oct 2025:** Just a year ago this shoreline was completely overgrown and inaccessible. Today we've cleared the site, completed environmental assessments, and are working through permitting and sediment investigation requirements to move the project forward.



# Zug Island Boat House – Site Photos

**Historical Sea Wall and Dock:** Dilapidated structures - but permits are still required for removal



# Zug Island Boat House - Site Photos

Photos taken during Lake Erie seiche December 2025, exposing remnants of historical debris.

A photograph showing a shoreline covered in a large pile of weathered wooden planks and debris. In the background, a green metal truss bridge spans the water. The sky is overcast.

Historical Debris

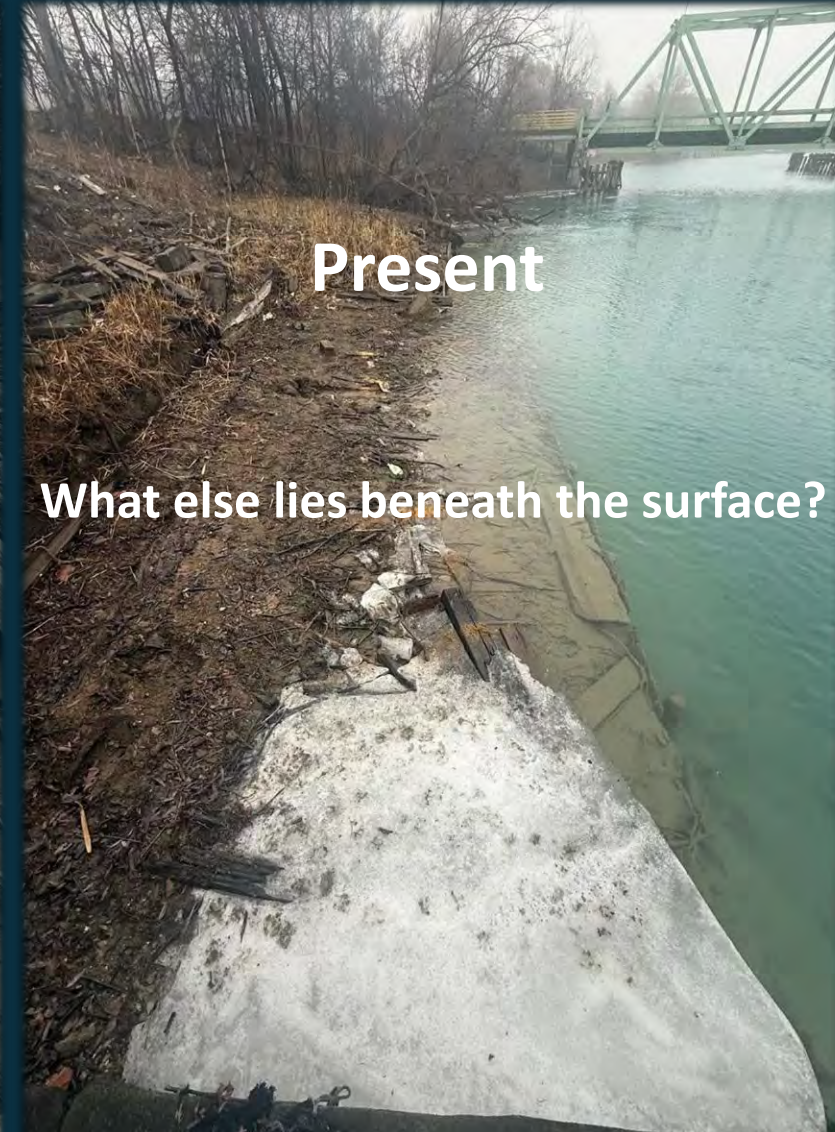
A photograph showing a shoreline with debris, including wooden planks and a large concrete culvert pipe. A white line is drawn across the water to indicate the Ordinary High Water Mark (OHWM). A building and a power line tower are visible in the background.

OHWM

When the water dropped, the history showed up.

# Zug Island Boat House – Site Photos

Small cleanup effort made along the shoreline, tires, rims, scrap metal, glass, ropes, chains, and timbers were removed.



# Zug Island Boat House – Site Photos



## What Help Are We Still Looking For?

- Funding for sediment investigations below the OHWM
- Guidance on sediment sampling requirements
- Waterfront cleanup funding opportunities
- Brownfield redevelopment assistance for small property owners
- Demolition/asbestos funding opportunities
- Technical assistance navigating multi-agency permitting

**We're not here because we have all the answers. We're here because we're still trying to find them.**

## Highlights of Key Lessons Learned

- Meet with EGLE before investing major money
- Environmental assessments are the roadmap, not a hurdle
- Grant funding exists, but persistence is required
- Engage regulatory agencies early
- Build relationships before you need them
- Understand the distinction between upland soil and sediment investigations
- Small projects can quickly become large redevelopment efforts
- Flexibility and patience are critical

### Final Thought:

**Contamination should not stop redevelopment; it should define the roadmap.**

*Fun Fact: Lobsters are living in the Rouge!*



A photograph of a cable-stayed bridge at dusk. The bridge's two tall, illuminated pylons and the network of stay cables are prominent against a dark, cloudy sky. In the foreground, a barge is docked at a pier, with a sign that reads "NO WAKE" visible. The water reflects the bridge's lights. The overall scene is industrial and serene.

*I came here hoping to share our experience  
But I'm also here because we still don't have all the answers.*

*Thank you for your time, any questions?*

*Brian and Tamra Zuehlk  
Zug Island Boat House*

Special thanks to my supportive wife, who couldn't be here today. She originally sent me the property listing, but I don't think she realized the can of worms she would open.