CHEERS

Cleveland Harbor Eastern Embayment Resilience Strategy

September 11, 2025

Stakeholder Meeting #8



Agenda

- Partner Updates
- Regulatory + Permitting
- Habitat Loop Design Site Plan Updates
- Workforce Development Planning
- Next Up



Partner Updates











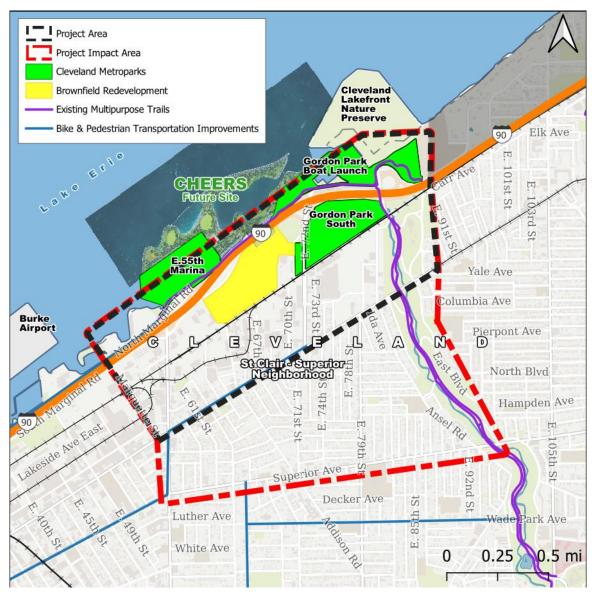


Key supporting stakeholders:
Ohio Environmental Protection Agency (OEPA)
Northeast Ohio Regional Sewer District (NEORSD)
Northeast Ohio Areawide Coordinating Agency (NOACA)

Metroparks

Reconnecting Communities Institute

- City of Cleveland, ODOT, St. Clair Superior, Cleveland Metroparks, and NOACA are participating in biweekly meetings NOACA submitted the 2024 grant application
- While the grant was not successful, CHEERS was invited to participate in the technical assistance available through RCI
- The E55 corridor was identified as the priority focus area



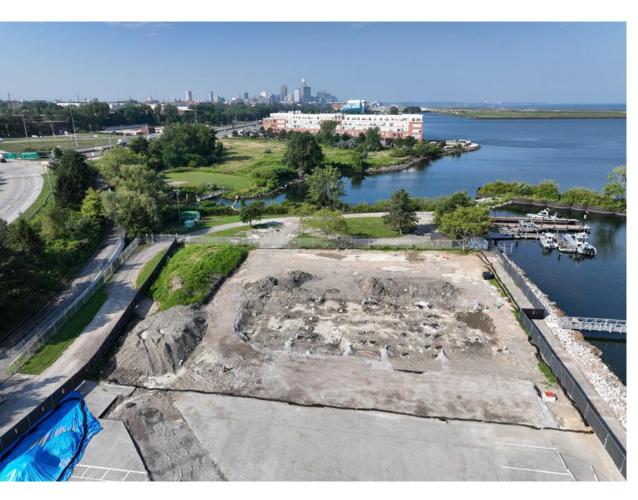
Mandel Community Trail

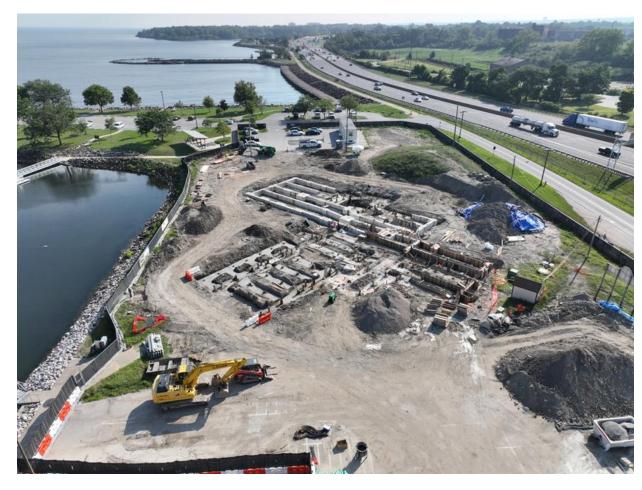






Patrick S. Parker Community Sailing Center





West Building East Building

Patrick S. Parker Community Sailing Center



EAST 55TH MARINA CONCEPT PLAN - DRAFT



City of Cleveland

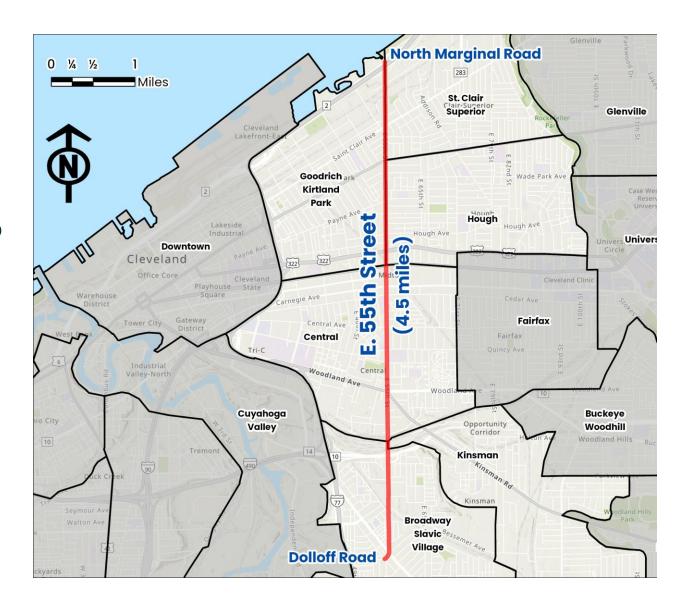
Modular Housing

- The City has selected the following construction manufacturers as finalists: Module, ModDSys/Container Homes USA (CHUSA), ZenniHome, and Guardian Structural Technologies.
- As part of the product pilot, six homes, at least one from each manufacturer, will be developed in the Clark-Fulton and Buckeye neighborhoods in partnership with Habitat for Humanity.
- A final manufacturer or group of manufacturers will be selected by the end of 2025.
- A "market pilot" will launch in early 2026, delivering 20 off-site construction homes to the St. Clair-Superior and Hough neighborhoods to gauge market interest and performance.

Link: Modular Housing



- The City is working on firming up recommendations and cost estimates for work on the E. 55th corridor.
- This summer the City won a Safe Routes to School grant for \$1M to help fund improvements aimed at:
 - Developing a plan for separated bike lanes that are implementable using quick-build strategies.
 - Identify specific pedestrian safety problems and enhancements.
 - Determine required intersection treatments and safety enhancements.



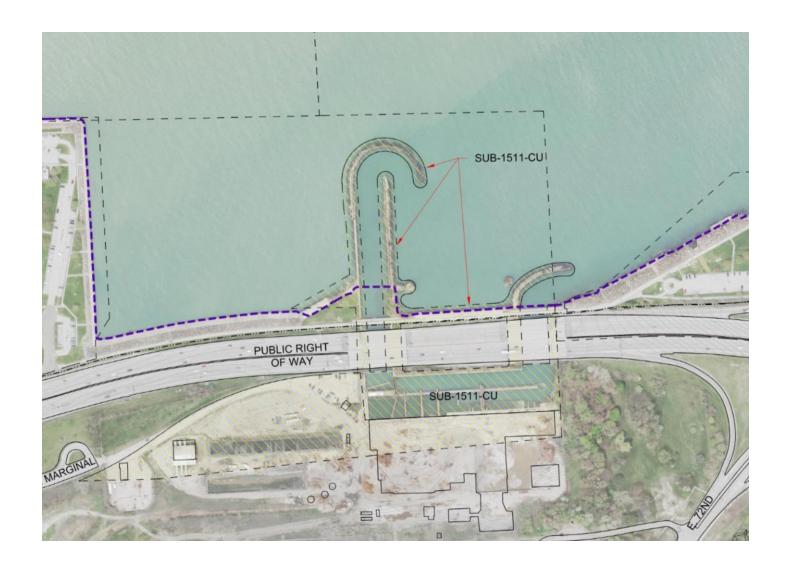
State Route 283

(E. 55th up to St. Clair jogging over to E. 72nd)

- The City is working with LAND Studio and the Mandel Foundation on this capital project to include potential streetscaped areas at nodes along St. Clair
- Nodes highlighted are E. 55th, ~E. 64th, and E. 72nd

Former First Energy Site

- The City (and others) are continuing to work with IDA, the new owner of the First Energy lakefront site.
- IDA is an environmental remediation firm that will clean up the land and get it ready for various future development opportunities.



Port

BEL

ODOT

Regulatory Updates USACE

USACE

• Period of Analysis: 2030-2049

Targeted Dredging Quantity: 300K CY

		Measures										
Alternative Plans	Preliminary Estimated Total Capacity (CY)	Open-water placement	Limited open-water placement	Construction of new CDF	CDF expansion	Placement at CDF 10B	Placement at the Port's SPMF	CHEERS concept	Littoral nourishment	Aquatic ecosystem restoration	CDF harvesting and upland placement	Dredging optimization
1 – No Action	0											
2 – Full Open-Water Placement	6,000,000	Х										Х
3a — Maximize Existing CDFs and Aquatic Ecosystem Restoration	5,500,000		Х		Х	Χ	Χ			Χ	X	Χ
3b — CDF Harvesting and Coastal Habitat Restoration	6,240,000		Х		Х	Χ			Χ	Χ	Χ	Х
4a – CHEERS Concept, Sediment Recycling, and CDF Harvesting	6,240,000		Х		Х	Х	Х	Х			Х	Х
4b – CHEERS Concept, Littoral Nourishment, and CDF Harvesting	5,740,000		Х		х	Х		Х	Х		Х	Х
4c – CHEERS Concept, Sediment Recycling, and Ecosystem Restoration	6,247,500		Х		х	Х	Х	Х		Х		Х
4d – CHEERS Concept and Coastal Habitat Restoration	5,747,500		Х		Х	Х		Х	Х	Х		Х
5a – New CDF and Sediment Recycling	8,840,000		Х	Х			Х					Х
5b – New CDF and Littoral Nourishment	8,340,000		Х	Х					Х			Х
6a – Maximize Beneficial Use (Sediment Recycling)	6,240,000		Х		Х	Х	Х	Х		Х	Х	Х
6b – Maximize Beneficial Use (Littoral Nourishment)	5,875,000		Х		Х	Х		Х	Х	Х	Х	Х

USACE - DMMP Schedule



- Accelerating the Alternatives Milestone Meeting! confirms focused array and remaining study scope
- AMM to TSP will include investigation on focused array of alternatives, design refinement, and partner coordination

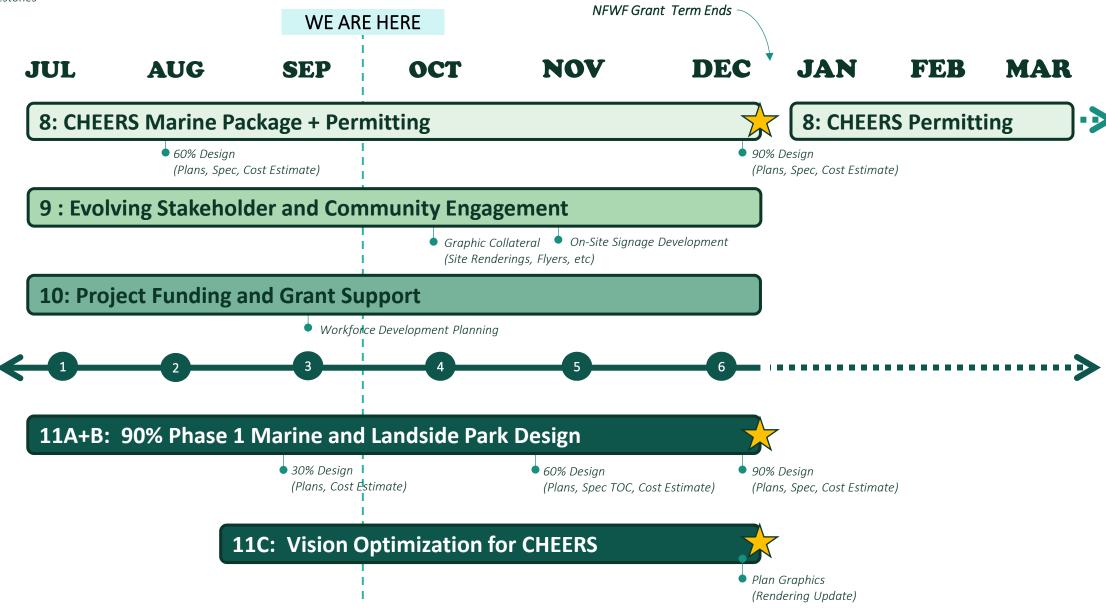
USACE - Path to TSP

- Data collection sediment sampling and analysis
- Environmental compliance Pre-coordination has started via scoping with applicable agencies.
 - olssue Notice of Intent & Public Scoping Period FWS Coordination Act Report, CZMA determination, Clean Water Act compliance
 - oldentify and characterize mitigation requirements
- Beneficial Use of Dredged Material Measure Development
 - oldentify and validate end user(s) for 10b harvested material Ongoing now with a possible end-user.
 - oldentify conceptual AER opportunities open call for help in identifying probable projects in out-years or inform risk to the measure
- Engineering and Modeling
 - OReview and determination on Port's non-Fed model initiated now; SOW for one-time use approval review underway,
 - oConduct modeling for focused array to increase design maturity
- Economic analyses
- Refine cost estimates & conduct Abbreviated Risk Analysis (ARA)
- Monitor and update risks and uncertainties

Scope Revisions + Schedule

2025 Schedule





Habitat Loop Plan Updates

Early Action Project

Project Goals:

- Achieve a constructed project for the community
- Demonstrate benefits and proof of concept for CHEERS
- Address a short-term dredge placement site in advance of the 2029 capacity limit
- Draft budget \$12-13M; local funds needed



January Partner Workshop





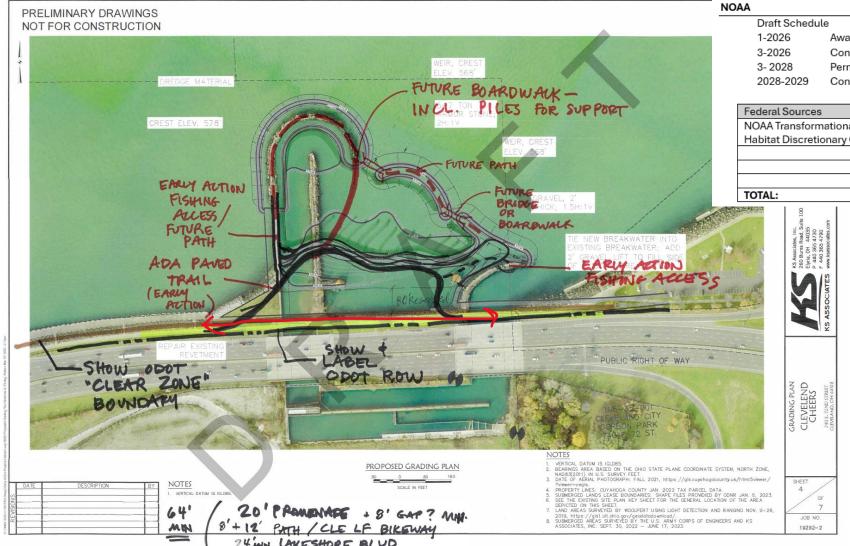
The CHEERS Partner group came together to collaborate and brainstorm on an initial breakout project.

Initial Sketches





Refinement for grant



Award Contract Permit Construction

Federal Sources	Non-Federal Local Match	Amount	Percentage
NOAA Transformational Habitat Discretionary Grant		\$ 9,500,000	79.17%
	Cleveland Metroparks	\$ 1,000,000	8.33%
	Port of Cleveland	\$ 100,000	0.83%
	City of Cleveland	\$ 1,400,000	11.67%
TOTAL:		\$12,000,000	100.00%

This Early Action project:

- Protects I-90 from wave action
- Improves fish habitat by constructing shoreline wetlands unique along Cleveland's shoreline
- Expands opportunities for fishing
- Creates places to touch the water
- Provides essential dredge placement areas before the 2029 lack of capacity

CHEERS is the most responsible, beneficial, and locally supported alternative.

The Habitat Loop is the first step.

Without the CHEERS project, the region faces a critical challenge: the imminent exhaustion of existing dredge placement facilities.

This would halt dredging operations, directly affecting the ability of maritime shipping vessels to navigate Cleveland Harbor.

The Habitat Loop offers a foundational solution to this looming disruption.

By creating new dredge placement capacity alongside expanded park space and restored habitats, the Habitat Loop ensures the continuity of dredging operations, in effect, safeguarding both Cleveland's economic strength and environmental resilience. **The Habitat Loop Early Action Project**

Provides

1-2 years
of dredge capacity

Supports the total economic activity of the Port of Cleveland estimated

\$7B

Habitat Loop

Co-benefits

Habitat Loop Fast Facts

- Over 6 acres of new park space for public use and ecological restoration
- Only native shoreline habitat within 10 miles
- Over 3.5 acres of wetland habitats
- Supports the recovery of 4 State-listed species: Muskellunge, lake trout, burbot, and lake sturgeon
- Protects and expands subsistence fishing opportunities

Over \$3.5M in resilience and ecosystem service benefits

Nearly

\$2M

reduced damages and repair costs for I-90.*

Over

\$1.5M

cumulative ecosystem service benefits including erosion prevention, habitat creation, and water filtration.*



The Habitat Loop Early Action Project plan showing the proposed wetland habitats and parks space as well as the connection to the existing bike path.

^{*}Assumes protection for 1/4 miles of I-90. All benefit values are reported in present value 2024 dollars.

Habitat Loop

Part of a Larger Vision

The Habitat Loop will:

- ✓ Deliver a practical dredge placement solution, preserving the region's economic vitality.
- ✓ Demonstrate a proof of concept for nature-based solutions in the harbor.
- ✓ **Generate actionable data** and lessons learned to inform permitting, design, and stakeholder engagement for the larger CHEERS project.
- ✓ Build momentum and visibility for the broader vision while aligning with nearterm funding and regulatory opportunities.

Without the holistic CHEERS project, the region will remain without:



A Long-Term Dredge Material Management Solution Aligned with the 20-year DMMP

The Habitat Loop alone does not resolve the Port or USACE's long-term dredge placement needs.

The holistic CHEERS plan presents a comprehensive, strategic solution that supports placement needs for the next two decades.



Protection of I-90 Corridor

While the Habitat Loop offers local protection, it falls short of addressing the full vulnerability of the I-90 corridor.

CHEERS fills that gap - shielding a high-risk section from costly, recurring damage and breaking the cycle of repair and disruption.



Ecological and Shoreline Benefits

The Habitat Loop represents only a small portion of the broader environmental enhancements envisioned in the full CHEERS plan.



CHEERS will multiply the initial environmental impact of the Habitat Loop delivering:

- 1,375 linear feet of breakwater with **integrated fish shelves** to support aquatic habitat.
- 4,670 linear feet of **living shoreline** improving resilience to erosion and storm surge.
- 35 acres of open, protected water and near-shore habitat thus expanding biodiversity and subsistence fishing opportunities in a region where accessible, naturalized shoreline doesn't currently exist.

Habitat Loop

Targeting Strategic Funding to Advance CHEERS' Ecosystem Services

In April, we submitted a **\$10M** funding request to NOAA's Transformational Habitat Program - backed by a **\$2M local match**.

This application reflects our shared commitment to advancing the Habitat Loop EAP, and CHEERS more broadly. We firmly believe **CHEERS offers the most viable, strategic, and impactful path for Cleveland's economic, ecological, and community resilience.**

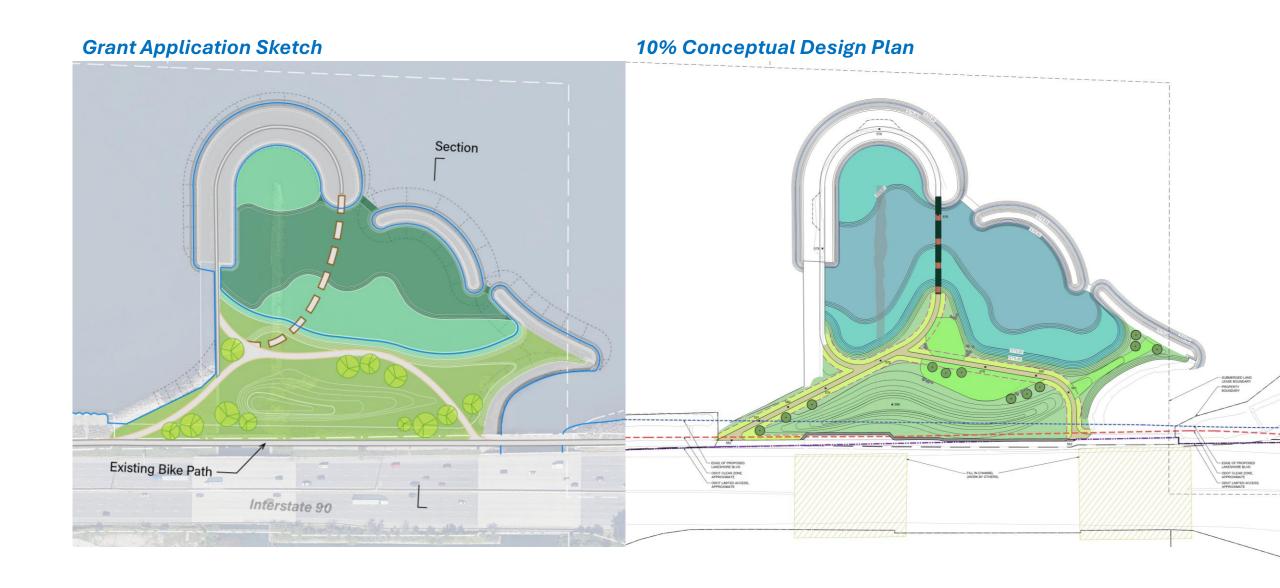
We are actively mobilizing resources to push CHEERS forward:



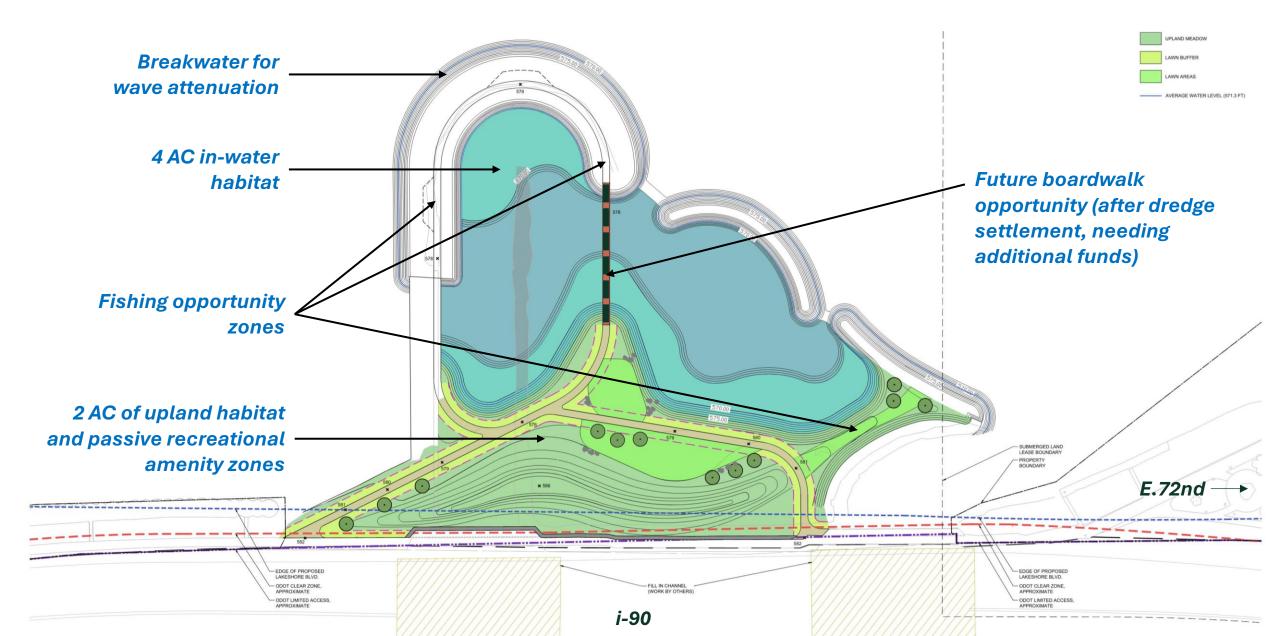
Our approach addressed the following Transformational Habitat Priorities:

NOAA Transformational Habitat Program Priorities	CHEERS alignment
Sustaining productive fisheries and strengthening ecosystem resilience	CHEERS expands fish habitat, supporting state-listed endangered species and native Great Lakes fish such as muskellunge, lake sturgeon, and lake trout.
Enhancing community resilience to climate hazards and providing other cobenefits	CHEERS shields I-90 from climate hazards and expands subsistence fishing opportunities in a publicly accessible location within 3 miles of approximately 75,000 Cleveland residents.
Fostering regionally important habitat restoration	CHEERS delivers 6.3-acres of submergent marsh and shallow emergent marsh habitat, aligning with the Northeast Ohio Areawide Coordinating Agency's (NOACA), the region's metropolitan planning organization, recent regional plan for Northeast Ohio.

Plan Advancement



Key site features



Workforce Development

Workforce Development Plan Scope of Work

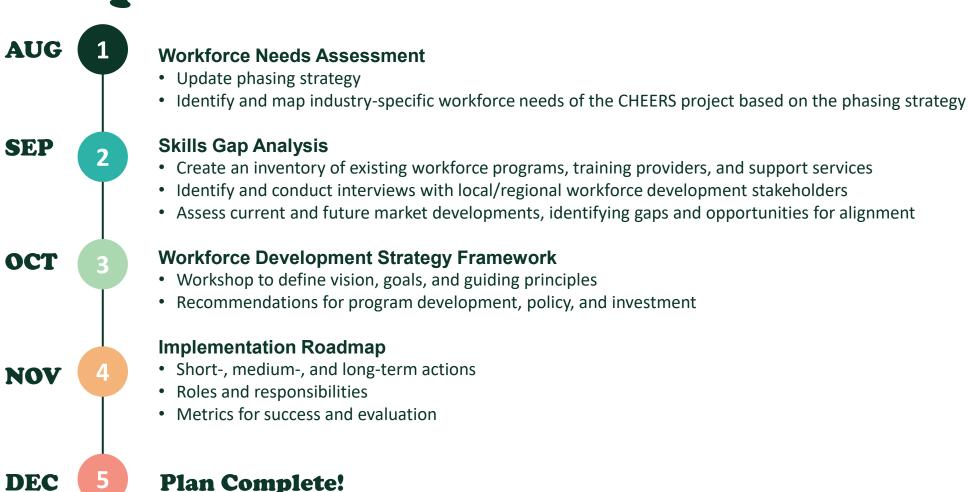
Goal: Ensure that the CHEERS project creates meaningful pathways to employment, particularly in neighboring communities.

This effort will identify workforce needs associated with the design, construction, and long-term stewardship of the CHEERS project's phasing strategy, particularly in sectors such as green infrastructure, marine construction, habitat restoration, and park operations.

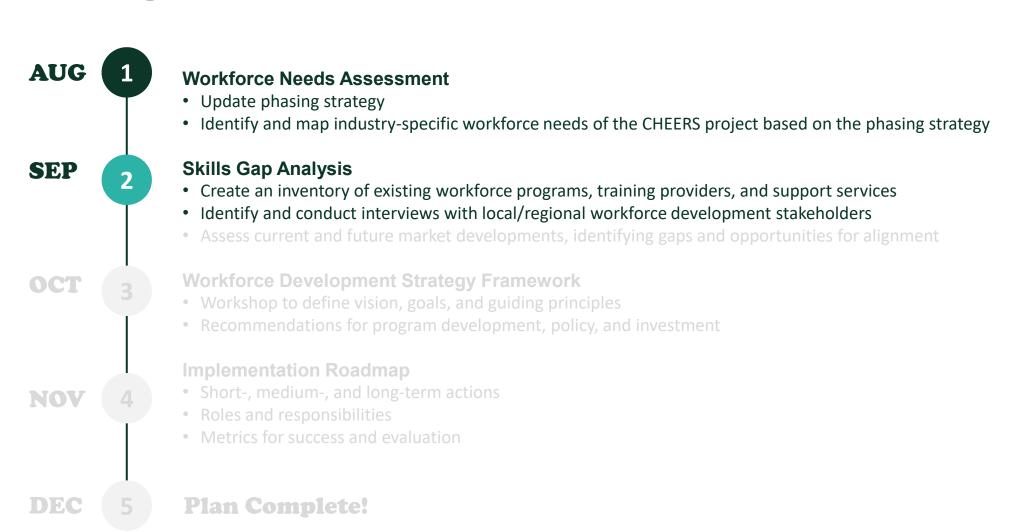
We will then assess existing training programs, identify gaps, and recommend strategies to fill needed workforce gaps and connect underrepresented communities to emerging job opportunities.



Workforce Development Plan Scope of Work



Progress



Workforce Development Opportunities

1.

Creating Jobs & Career Pathways to Support CHEERS

2.

A Living Lab for Workforce Development

Workforce Development Opportunities

1.

Creating Jobs & Career Pathways to Support CHEERS

This effort seeks to create direct employment opportunities in Cleveland, with a strong focus on local hiring and training. We are currently mapping anticipated roles to existing programs and initiatives to ensure accessible pathways,

Needs Assessment Findings:

CHEERS will generate hundreds of jobs across more than 15 specialties throughout its 20+ year implementation and beyond. Many of these roles will be in emerging green workforce sectors, including:

- Heavy Equipment Operators
- Concrete Production & Dolos Placement Specialists
- General Construction Crews
- Site Civil Engineers & Construction Managers
- MEP Trades Professionals
- Buoy Placement & Channel Management Experts
- Pump & Hose Operators
- Underwater Survey Technicians
- Ecologists
- Nursery Managers
- Green Infrastructure Specialists
- Landscape Architects & Arborists
- Monitoring & Data Analysts
- ...and more!

Workforce Development Opportunities

2.

A **Living Lab** for Workforce Development

CHEERS is uniquely positioned to serve as a training incubator and living laboratory, offering long-term, place-based learning and career development opportunities.

Its phased implementation strategy enables dynamic research, training, and innovation in Great Lakes resilience.

- Entry-level workers (e.g., earth movers) can progress into specialized roles (e.g., dolos placement experts) over time.
- The project offers a rare chance for career advancement within a single initiative, fostering deep expertise and building local capacity.
- Workforce development will be supported through vocational school partnerships, apprenticeships, internships, and trade school collaborations.

Next Steps

We plan to conduct interviews in early October with partners who have existing initiatives in these fields to explore potential collaborations aligned with Opportunity 1 and Opportunity 2.

Interested in participating?

Please email:

Kara.Slocum@arup.com
Hannah-T.Wilson@arup.com

Next Up

Upcoming Engagements

- Stakeholder Meeting #9 September 11, 2025 TODAY!
- Stakeholder Meeting #10 December 11, 2025

For more information on the CHEERS project, please visit our <u>website</u>. You can also find materials and recordings from previous stakeholder meetings at the bottom of that webpage.

If you would like to add colleagues or other stakeholders to our project listserv, please feel free to reach out to Kelly Coffman (Cleveland Metroparks), Linda Sternheimer (Port of Cleveland), or Kara Slocum (Project PM, Arup).

Community engagement in November...Stay tuned!

