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# The Vision

CHEERS offers a once-in-a-generation opportunity to Embrace the Lake as an asset for future generations. The plan connects residents to their lakefront, allows the shoreline to adapt while preserving and creating new habitat, creates a buffer to protect communities and critical infrastructure, provides more spaces for the community to enjoy nature and the lake, and establishes the eastern lakefront as an equitable destination for the east side of Cleveland.

# Embrace the Lake

CHEERS brings the needs of the natural environment and the community into balance to create a resilient lakefront that leverages existing assets to Embrace the Lake as an asset for future generations. In order to achieve this vision, the plan includes goals that: connect people and communities to the lake, program spaces that meet the needs of the community, protect critical infrastructure and expand natural habitat areas, and celebrate the legacy, history, and significance of the lake.

CHEERS envisions returning the hardened edge of Cleveland's east side lakefront to a natural shoreline with places for people and nature. The beneficial use of dredge will expand parks, create and enhance in-water and nearshore coastal habitat areas, mitigate the impacts of the highway on existing parkland, protect infrastructure, and create a sheltered embayment where visitors can safely access the lake.









Waterfront trail and community connections. (Hunter's Point South – New York, AIA New York)

### CONNECT PEOPLE AND COMMUNITIES TO THE LAKE.

The presence of I-90 and the rail lines act as barriers to the eastern lakefront, requiring residents to navigate over or under the infrastructure. Despite the miles of Lakefront Trail that traverse the study area, north-south access points from adjacent neighborhoods to the lakefront are limited for bicycles and pedestrians. Furthermore, the car-centric nature of many lakefront spaces and the limited access points lead to the feeling that pedestrians and bicyclists are not welcome and not safe moving through the study area.

CHEERS envisions the creation of an equitable and accessible lakefront with more opportunities to touch and engage with the water, contiguous and connected park spaces, and improved accessibility and safety for surrounding communities through the creation of new trails and greenways. The plan reconfigures access to the lakeshore – reconnecting residents from adjacent neighborhoods to the lakefront through greater bike, pedestrian, and vehicular access. Existing community streets (E. 55th and E. 72nd streets and MLK Drive) will be transformed with multi-use trails and bike lanes, wayfinding signage, and gateways at lakefront parks. The experience of traversing pedestrian bridges over I-90 will be enhanced and new pedestrian bridges near the former FirstEnergy plant and Kirtland Park will be explored to further enhance connectivity to nearby neighborhoods. The plan also improves community resilience by buffering communities from the negative impact of environmental stressors and increasing equity in the availability of recreational assets. New healthy shoreline ecosystems and natural protection will improve aquatic habitat and protect critical infrastructure. Combined, these improvements will restore adjacent neighborhoods as "Lakefront Communities."

#### **Key Strategies:**

- Create more opportunities to touch and engage with the water.
- Unite existing park spaces along the lake to create contiguous public open space.
- Improve accessibility from neighboring communities.
- Establish new greenway connections to the lakefront that improve access and safety.



# PROGRAM SPACES THAT MEET THE NEEDS OF THE COMMUNITY.

The lakefront is a popular destination for Clevelanders. From walking and biking trails to bird watching hot spots and fishing and boating destinations, the eastern lakefront provides a variety of recreation experiences. In 2020, Cleveland Metroparks eastern lakefront parks received over one million visitors. However, community members expressed a desire for more flexible open spaces for pick-up recreation games, picnics, and gatherings that would allow for more activity and enjoyment of spaces without disturbing the tranquility of the lakefront.

CHEERS envisions a series of nature-based, water-based, and passive recreation spaces that build upon what community members already love about the lakefront, ensuring that the lakefront is protected and enjoyed by all residents. The plan incorporates a variety of trail experiences, new opportunities for water- and nature-based recreation, flexible and passive recreation spaces for community events, and increased visitor amenities (e.g., benches, picnic tables, restrooms, etc.) creating a dynamic, accessible go-to recreation and immersive natural space in the heart of the city.

#### Key Strategies:

- Provide a diversity of water-based recreation opportunities like fishing, wading, and watersports.
- Create new spaces for informal and formal activities and events.
- Incorporate immersive nature-based experiences in the heart of the city.



Great lawn with gathering spaces for events and picnicking. (St. Patrick's Island – Calgary, W Architecture and Landscape)



# PROTECT CRITICAL INFRASTRUCTURE AND EXPAND NATURAL HABITAT AREAS.

Over two thousand linear feet of critical shoreline infrastructure, including roadways, trails, and an active airport form the edge of the study area. This community infrastructure includes I-90, a major regional thoroughfare and evacuation route, the Kirtland Pump Station, which is part of Cleveland's drinking water infrastructure, a Cleveland Public Power facility, and the Burke Lakefront Airport. The lack of in-water or nearshore habitat along the eastern embayment has resulted in a shoreline with no natural means of protection from storms and wave action. The impact of storms, waves, and ice on I-90 and other critical infrastructure has caused millions of dollars in damage and leads to unsafe conditions for community members.

Despite this portion of the shoreline lacking extensive habitat space and means of natural shoreline protection, it is an important stopover for migrating birds, a popular sportfishing destination, and a prime spot to enjoy an immersive natural experience within the city. Erosion, increased wave action, and more extreme storm events, coupled with the hardened nature of the shoreline, magnify the damage and deterioration of shoreline ecosystems and the corresponding reduction in water quality.

CHEERS envisions a series of more natural wave dissipation areas and barriers that reduce damage caused by storm events, restore natural ecosystems, and support community recreation and use. An offshore barrier isle provides protection from the most intense wave forces, allowing for the creation of a quiet cove with softened shoreline areas that will protect infrastructure, maximize new habitat space, improve water quality, and give greater community access to water- and nature-based recreation. New habitat areas will include both near-shore and aquatic habitat space that support water quality, biodiversity and fish spawning, and existing recreation activities like fishing. Protection of critical infrastructure, including I-90, will alleviate funding concerns related to maintenance and upkeep and contribute to the resilience of nearby communities and neighborhoods.

However, the reality is that the area will come under increasing threats and stresses from the changing environment. Given these unknown future conditions, the plan creates spaces that can evolve and adapt and are flexible and resilient in the face of a changing environment.

#### Key Strategies:

- Enhance and create new wetland areas that protect infrastructure and provide new habitat space.
- Use dredge material to create more park space to buffer critical infrastructure.
- Protect the shoreline and expand natural areas to maximize habitat space.



## CELEBRATE THE LEGACY, HISTORY, AND SIGNIFICANCE OF THE LAKE.

Cleveland's Eastern Lakefront has played a significant role in the history of the City – from aiding in the early industrialization and economic prosperity to providing waterfront access and recreation for generations of Clevelanders. Though the area is still home to a few publicly-accessible parks and recreation spaces, much of the shore is still dominated by industrial uses, infrastructure, and private residences and properties. In addition to land use challenges, this area is seeing the impact of climate change in water level fluctuations and more frequent and extreme storm events, exposing communities and infrastructure to threats of erosion, wave surges, flooding, and wind damage.

CHEERS envisions a lakefront for all – one that celebrates and uplifts the history and significance of the lakefront and its influence on communities, honors the natural systems and its evolution, and helps to define a healthier relationship with the waterfront and its ecosystem. The vision provides new ways of engaging with the lake and the environment by creating community spaces that provide moments of respite, gathering spaces, and opportunities to actively engage with the water. The eastern lakefront of the future embraces the restorative qualities of green space and blue space (water) and their combined impact on the well-being and health of the community.

#### Key Strategies:

- Honor the cultural, historic, and environmental significance of the water and its connection to communities.
- Create places where the community can celebrate nature and appreciate the cultural and historic significance of the lake.
- Celebrate the lakefront as a natural oasis and refuge within the city.



Paddleboarding and kayaking on Lake Erie. (Cleveland Metroparks)

# The Plan

CHEERS envisions returning the hardened edge of Cleveland's east side lakefront to a natural shoreline with places for people and nature. The beneficial use of dredge will expand parks and habitat, mitigate the impacts of the highway, protect infrastructure, and create a sheltered embayment where visitors can safely access the lake. Swaths of new habitat and natural shorelines will be encircled by a network of trail systems and a tree-lined parkway. Play spaces, amenities, picnic lawns and pavilions, fishing areas, and overlooks will be distributed throughout the lakefront for the community to enjoy. Gateways, event lawns, and educational and natural programming will activate the edges of the Lakeshore, while the Cove and the Isle with its wetlands, grasslands, and marsh areas will provide a natural experience in the heart of the city. These components will work together to create a resilient lakefront that meets the needs of the environment and the community.

#### The Isle

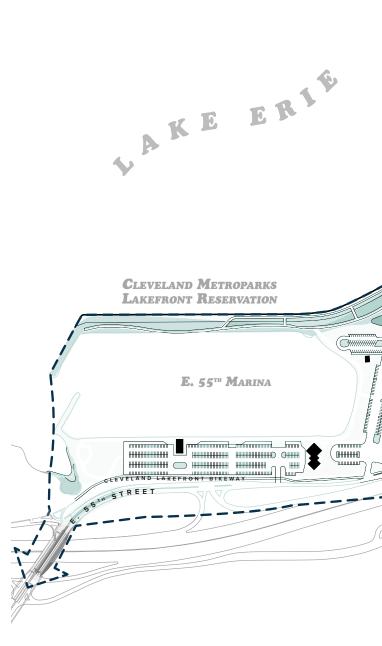
The Isle will create a new way to experience the lake. Visitors can walk or bike across the bridge or paddle out through *the Cove* to wander through the trails, tree-lined lawns, and nature play areas, immersing themselves in the unique natural environment of Lake Erie. *The Isle* presents an unmatched opportunity to create contiguous habitat space, maximizing the connectivity and health of ecosystems that make Lake Erie an unparalleled natural resource. Created from dredge material, this barrier island will also provide protection for the shoreline, allowing for the creation of a protected cove and naturalization of the water's edge.

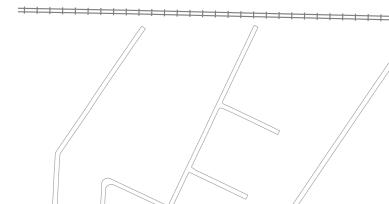
#### The Lakeshore

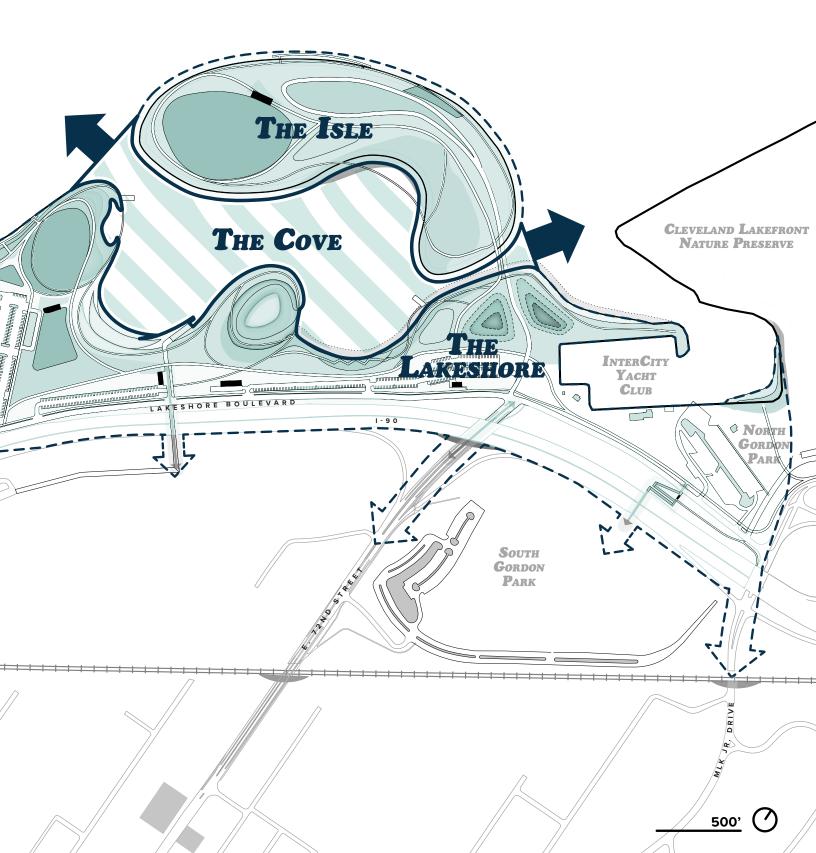
The Lakeshore will extend the existing shoreline, creating welcoming and connected park spaces. Major gateways at E. 55th and 72nd streets, Martin Luther King Jr. Drive, and enhanced pedestrian bridges will connect adjacent communities. *The Lakeshore* leverages existing activity nodes at the 55th Street Marina and North Gordon Park to create new gathering and recreation spaces for the community.

#### The Cove

Nestled between *the Isle* and *the Lakeshore*, *the Cove* will provide a protected inlet for watersports and extensive habitat restoration and expansion. The insulated area will offer a space for visitors to interact with and touch the water in a way that has not been available on the east side. Visitors can wade at the Shore, learn to kayak or operate other watercraft in an area insulated from wave energy at the Launch, or walk along elevated boardwalk trails along marsh and wetland habitat that rings the outer edge of *the Cove*.



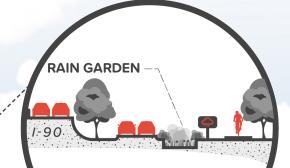




**COMMUNITY EDGE** 

# Creating a Resilient Eastern Lakefront

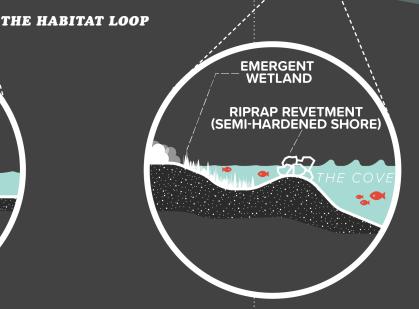
CHEERS will create 80 acres of new parkland along the eastern lakefront with natural habitat restoration and community gathering spaces created through the beneficial use of 3.1 million cubic yards of dredge material. The new space will improve environmental and community resilience. Rain gardens and native plants along the park edge will filter stormwater and buffer noise from I-90.



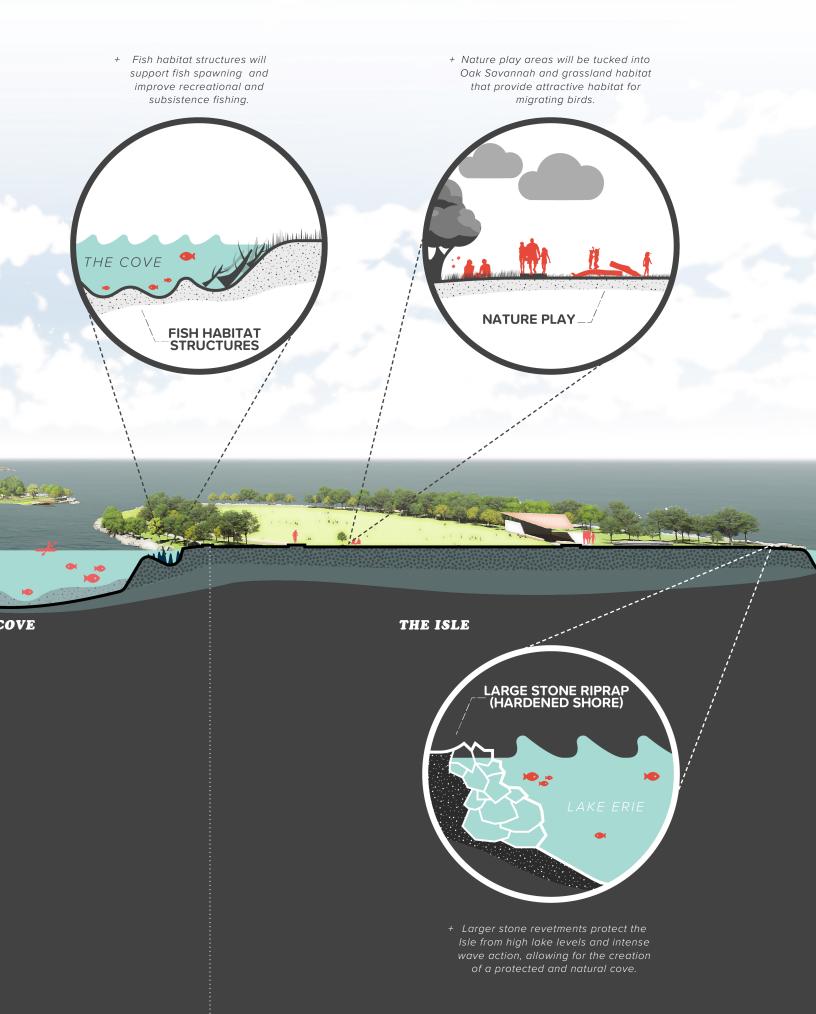
BOARDWALK TRAIL

> + The Habitat Loop uses dredge material to create a biologically-rich wetland habitat adjacent to the Cove.

EMERGENT



+ A partially softened shoreline protects from wave and lake levels while creating space for habitat in emergent wetlands. THE (





# Community-Driven Resiliency

The eastern lakefront is an essential natural and cultural asset for the city and the adjacent neighborhoods. It sits at the intersection of social vulnerability, storm hazards, and environmental risk. However, these challenges provide an opportunity to leverage infrastructure investments to achieve multiple community resilience and conservation outcomes that support the overall resilience of the lake and surrounding communities.

Resilience is defined as the ability to survive, adapt, and grow in the face of long-term stressors (e.g., poor infrastructure, poverty) and short-term shocks or events (e.g., storms, infectious disease outbreaks). While the term resilience is often associated with environmental issues related to climate change like flooding, rising temperatures, and management of more frequent storm and rain events, the team used a three-pronged approach to resilience – one that considers the resilience of the environment, the economy and society, and health and well-being of the larger community. Water level fluctuations, extreme storm events, and heat are increasing in frequency and severity due to climate change, exposing infrastructure along Lake Erie to threats of erosion, wave surges, flooding, and storm impacts. Climate projections estimate that Cleveland is expected to see an increase in temperature of four degrees by 2070, more intense heat waves, more frequent and intense storms, an increase in heavy precipitation, and longer freeze-free seasons. The neighborhoods adjacent to the lakefront are vibrant and culturally rich, but vulnerable and at greater risk of experiencing the disproportionate impacts of climate change. In the past year, this was evident in these communities, which are experiencing higher rates of COVID-19 infections and continued economic stress. These current crises have exacerbated existing issues of inequity in services and access to amenities and made the issue of resiliency even more pressing. These impacts require that proposed improvements to the lakefront account for dynamic conditions over the next decades, allowing the lakefront to adapt while preserving ecological and community functions. The CHEERS study proposes a series of strategies and projects to strengthen the resilience of the lakefront and its communities by improving equitable use and access to amenities, tackling critical infrastructure challenges, and providing economic development opportunities.



### **RESILIENCY STRATEGIES:**

- Use dredge material to buffer I-90 and critical infrastructure along the shore.
- Improve access to the lakefront for alternative modes of transportation, including biking, walking, and taking public or shared transportation.
- Create and restore native habitat ecotypes along the shoreline through the beneficial reuse of dredge material.
- Reduce maintenance costs for I-90.
- Expand the natural areas of the lakefront to create habitat corridors, manage stormwater, and improve water quality.
- Protect program elements and circulation systems from lake level fluctuations, wave action, and storm impacts.
- Create a destination for the east side of Cleveland that supports the local economy and provides equity in access to recreation and open space assets.
- Improve public awareness and understanding of natural processes and human impact on the environment.
- Build strong coalitions for the lakefront, including institutions, agencies, and park user partnerships to improve stewardship in an integrated and inclusive manner.



(Cleveland Metroparks)

- Increase ecological diversity and create healthy ecosystems that support populations of native and adaptive species.
- Maximize natural habitat areas to support improved water quality, air quality, and natural means of shoreline protection.
- Ensure flexible programming of spaces to allow for changing recreation trends and respond to community needs.
- Combat nature deficit disorder by increasing access to natural areas within the park for play and educational opportunities.
- Plant vegetation and design spaces that will adapt to future environmental conditions.
- Support public health measures by providing recreational opportunities that encourage active lifestyles.
- Provide space for new shade trees and plant species that mitigate heat island effects and provide a respite for communities.
- Design park infrastructure, improvements, and structures in a sustainable and energy-efficient manner using low-impact development measures and metrics.

		ENVIRONMENT												
	<ul> <li>Neutral and/or Adverse</li> <li>Good</li> <li>Best</li> </ul>	INCREASE NATURAL HABITAT	RESTORE ECOLOGICAL FUNCTION	INCREASE ACCESS TO AND VIEWS OF WATER	REDUCE POTENTIAL FLOODING	IMPROVE WATER QUALITY	REDUCE IMPACT OF HEAT	INCREASE BIODIVERSITY	IMPROVE AIR QUALITY	BENEFICIAL REUSE OF DREDGE MATERIAL	REDUCE IMPACT OF WAVES AND STORMS	REDUCE BIRD STRIKES	PROTECT COMMUNITIES FROM EXTREME WEATHER EVENTS	
	NATURAL AREAS (GRASSLANDS, MARSH)													
U L	THE LAWN	0	0			0						0		
THE IS	PICNIC GROVE													
	NATURE PLAY			0										
	OVERLOOK	0	0		0	0	0	0				0		
SHORE	THE COVE													
	THE SHORE & THE LAUNCH													
	THE HABITAT LOOP													
E M	THE GORDON HILLS													
LA	THE EASTERN FISHING COVE													
H H H	72ND STREET GATEWAY									0	0		0	
	COMMUNITY GREENWAYS									0	0		0	

# The Benefits

Building the resiliency of the lakefront requires maximizing benefits to provide value beyond a single use or program by designing projects that not only improve the environment, but also provide benefits to the community and the economy. Emphasizing multibenefit projects will ensure the lakefront remains an asset for future generations and plays an important part in the social, environmental, and economic transformation of the city and adjacent neighborhoods.

# COMMUNITY

Providing increased community benefits is essential to the lakefront's future and long-term vitality. A key objective of the master plan is to increase awareness of the lake as a welcoming and inclusive asset for neighboring communities. These "lakefront communities" have been largely disconnected from the lakefront since the construction of the highway. Improvements to existing neighborhood streets, new trail connections, and improved pedestrian crossings will make lakefront park spaces more accessible to adjacent communities. New programming and activities including event spaces, increased fishing amenities, picnic lawns, natural surface trails, and playgrounds will allow community members of all ages and abilities to play at the shore, enjoy nature, and touch the water.

Community benefits go beyond providing beyond everyday programming and activities. The plan recommendations and proposed projects will strengthen the community's connection to the water and its role in the history and vibrancy of the city, improve public health by promoting clean air and healthy waterways, combat nature deficit disorder, and provide a range of trails and activities that encourage physical health and provide a respite for mental health and healing through nature.

COMMUNITY									ECONOMY									
IMPROVE ACCESS TO OPEN SPACE	CREATE EDUCATIONAL OPPORTUNITIES	CREATE PLACES FOR RESPITE	IMPROVE PUBLIC HEALTH	REDUCE NOISE POLLUTION	ENHANCE SAFETY	SUPPORT RESOURCE- DEPENDENT FISHING	CREATE SPACE FOR INTERGENERATIONAL PLAY	INCREASE EQUITY IN ACCESS TO AMENITIES	GENERATE CITY/ REGIONAL TOURISM	PROVIDE REVENUE OPPORTUNITIES	CREATE EMPLOYMENT OPPORTUNITIES	IMPROVE PARTNERSHIP OPPORTUNITIES	IMPROVE EASE OF MAINTENANCE AND OPERATIONS	REDUCE MAINTENANCE COSTS FOR EXISTING INFRASTRUCTURE	PROTECT CRITICAL INFRASTRUCTURE	STORE DREDGE MATERIAL	DRIVE COMMUNITY ECONOMIC DEVELOPMENT	
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### **ENVIRONMENT**

The significance of Lake Erie as a natural resource for the region and the city cannot be understated. Improving the ecological health of this vital resource was central to the planning effort. To meet this need, the proposed plan includes projects that provide multiple benefits. Environmental benefits of the plan include increasing biodiversity and habitat space through the restoration of in-water and nearshore habitat that accommodate a wide range of flora and fauna, including state-significant plant species and migrating birds to support the lakefront's role as an Important Bird Area (IBA). Environmental restoration benefits nestled into community-facing projects provide protection for critical community and regional infrastructure, including highways and water and power infrastructure. These investments will reduce the need for additional infrastructure costs in the future while maximizing habitat and ecological benefits.

### **ECONOMY**

Natural open spaces, ecological restoration, and increased programming and amenities combine to create a new go-to destination for the east side of Cleveland. New concession, rental facilities, and event spaces will provide opportunities to offset maintenance and operation costs for new park spaces and provide potential spaces for new local job opportunities. This new amenity will not only increase equity in recreational amenities for adjacent neighborhoods, but also provides an opportunity to market and celebrate the diversity of assets within those neighborhoods to new visitors and investors. These new investments will also support the city's tourism and overall economic development efforts. Continued coordination and partnership with local CDCs and community groups will help provide crucial amenities for existing residents and ensure that equity is central to each phase of implementation.

> The matrix summarizes the potential environmental, community, and economic benefits for each proposed project