

01.

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Why We Need a Plan

Community resiliency planning is arguably the most urgent undertaking of our time. The eastern lakefront sits at the intersection of social vulnerability and environmental risk. These communities have limited access to the lakefront – an underleveraged natural asset and resource – and are most vulnerable to the impacts of climate change. In addition to these risk factors, they have historically been left out of decision-making processes. This plan addresses current and anticipated challenges to improve the physical, ecological, and social resilience of the Lake Erie shoreline, the adjacent neighborhoods, and the larger community.

Why plan now?

With the increased collaboration among partners, the need to improve habitat and water quality, the urgency to address infrastructure concerns related to climate change, a desire to improve the equity of the lakefront, a need for more park space, and funding support from the National Fish and Wildlife Foundation (NFWF) through the National Coastal Resilience Fund, the time is now to seize the momentum to develop and implement a plan that improves the resilience of the eastern lakefront. CHEERS is an opportunity to build on and enhance previous visioning and planning work, find beneficial uses for dredge material, and create essential natural habitat for bird, fish, and other species with projects that are primed for implementation. This habitat will protect the shoreline and nearby critical infrastructure from storm events, high winds, and changes in lake levels, which are currently at a historic high due to recent wet weather events.

The eastern lakefront sits at the intersection of social vulnerability, storm hazards, and environmental risk. Based on the 2015 Cleveland Climate Resilience and Urban Opportunity Plan, Cleveland is expected to see an increase in temperature of 4 degrees by 2070, more intense heat waves, more frequent and intense storms, an increase in heavy precipitation, and longer freeze-free seasons. The communities on the east side of Cleveland, where the CHEERS study area is located, have the highest degree of social vulnerability. This area has the largest percentage of residents living in poverty, the third highest percentage of minority residents, and the third lowest owner-occupied housing rate (*NEO Storm Hazard Vulnerability Study*).

This plan is animated by a shared urgency and alignment of goals among the partners – the City of Cleveland, Cleveland Metroparks, Port of Cleveland, the Ohio Department of Natural Resources, and the Ohio Department of Transportation – to awaken, enrich, and protect the lake. It tackles a variety of issues and leverages existing assets and opportunities to **Embrace the Lake** as an asset for future generations. These issues and opportunities include:

- Quality of Water and Habitat
- Wave Action, Storms, and Ice
- Impact on Critical Infrastructure
- Barriers to Community Access





The study area encompasses the Lake Erie shoreline from the Lakeside Yacht Club on the west to the Cleveland Lakefront Nature Preserve on the east and from the federal break wall on the north to I-90 on the south. The area is approximately two miles from east to west and three-quarter miles from north to south (I-90 to the Federal Breakwall).

SOURCE: CLEVELAND CITY GIS



+ Quality of Water and Habitat

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 nature 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. More natural wave dissipation can reduce damage, restore natural ecosystems, and support community recreational use.

+ Wave Action, Storms, and Ice

The lack of in-water and nearshore habitat along the eastern embayment has resulted in a shoreline with no natural means of protection from storms and wave action. The hardened shoreline with boulder walls, breakwaters, and steel bulkheads provides no areas for wave dissipation or means to break energy associated with storm events.


+ Impact on Critical Infrastructure

Over 2,000 linear feet of critical shoreline infrastructure, including roadways, trails, and an active airport, form the edge of the study area. I-90, a major regional thoroughfare and emergency evacuation route, runs east-west along the shoreline. At its narrowest point, the shoreline between I-90 and the lake is a mere 80 feet wide. Given its proximity to the Lake, the highway is frequently impacted by high winds, waves, and storm events, which cause millions of dollars in damage, lead to vehicle crashes, and often require the section of the highway that traverses the study area to be shut down. The study area also includes the Kirtland Pump Station, which is part of Cleveland’s infrastructure for drinking water, and a Cleveland Public Power facility. Additionally, the study area is adjacent to a general aviation facility, Burke Lakefront Airport.



“This project represents healing. Water brings healing... to see the collaboration that is happening and know that this project is for all Clevelanders.”

– *SeMia Bray,*
Black Environmental Leaders (BEL)

 *The eastern lakefront during winter with a view of the skyline.*

± Barriers to Community Access

The construction of I-90 in the 1950s provided suburban workers greater access to Downtown Cleveland. However, like many cities across the country, it cut through the existing city fabric, severing linkages to the waterfront and bisecting a key recreational assets – Gordon Park. Today, there are limited pedestrian and bicycle connections to the lakefront from adjacent communities, all of which require going under or over I-90 and the railroad. The challenges associated with getting to the lakefront create physical and psychological barriers for the community to access the lake.

CHEERS objectives include: restoring and creating new places for habitat, finding beneficial uses for dredge material, protecting communities and critical infrastructure from the impact of storms and climate change, improving access and connections to the lakefront from adjacent communities, and thinking responsibly about how to spur new development in an equitable way that improves the economy and provides new opportunities for communities.

Addressing Community Resiliency

Resilience is 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, CHEERS takes a three-pronged approach to resilience. This includes measures that improve the resilience of the environment, the economy and society, and health and well-being of the larger community.



Why we need to improve environmental resilience on the eastern lakefront:

- + Impact of Climate Change
- + More Frequent and Intense Storm and Weather Events
- + Impact of Waves, Ice, and Erosion on the Shoreline and Critical Infrastructure
- + Flooding and High Lake Levels
- + Limited Nearshore Habitat
- + Degraded Water Quality and Aquatic Habitat
- + Lack of Natural Shoreline Protection
- + Large Availability of Dredge Material that Needs to be Beneficially Used or Stored
- + Increase in Average Temperatures



the economy



the community

Why we need to improve economic resilience on the eastern lakefront:

- + Limited Economic Opportunity for Adjacent Communities
- + Lack of a Destination or Draw to the East Side of Cleveland
- + Increasing Costs Associated with Maintaining and Repairing Infrastructure Damaged by Weather and Waves
- + Limited Lakefront Amenities for Potential Development

Why we need to improve community resilience on the eastern lakefront:

- + Barriers to Accessing the Lakefront
- + Lack of Equity in Availability and Access to Open Spaces and Recreational Amenities
- + Safety and Security Concerns
- + Vulnerable Communities with Limited Ability to Respond to Environmental or Economic Shocks
- + Need for Intergenerational and Community Gathering Spaces

History of the Lakefront

HOW THE SHORELINE HAS CHANGED OVER TIME

Lake Erie has played an essential role in the cultural legacy of the City of Cleveland since its founding in 1796, a legacy that continues to this day. The City’s location along this important waterway aided in its development as a hub for trading and industry. There are many layers of interconnected history throughout the longstanding relationship between Clevelanders and Lake Erie – from providing economic prosperity through industrial development and shipping to offering a vital connection to water and nature.



Boaters in Gordon Park – 1900-1930 (the Cleveland Memory Project)



CLEVELAND

In 1796, the City of Cleveland was established by surveyors of the Connecticut Land Company.

1600s

INDIGENOUS COMMUNITIES

Prehistoric American Indians occupied nearby river valleys including the Cuyahoga for thousands of years before the arrival of Europeans. They utilized the abundant natural resources in and near Lake Erie for hunting, gathering, fishing, and trapping as well as travelling. These First People moved on from Ohio by 1600 as pressure from the east disrupted their way of life. There were no major American Indian occupations in Northeast Ohio after this time, but small groups of historic tribes used the area into the 1800s.

1700s



1800s

GORDON PARK

The 122-acre park was given to the city as a public park and recreation area in 1893, it became a popular destination for Clevelanders. Gordon Park and the surrounding neighborhoods have a direct connection with the lakeshore north of the rail lines.



1800s

In the 1800s, Cleveland became an important supply link for the country during the War of 1812. Its waterfront location provided key access links to trading routes on the Great Lakes. This only accelerated after the completion of the Ohio and Erie Canal that linked the Great Lakes to the Atlantic Ocean and Hudson River. The addition of new rail lines only furthered this growth and expansion. Following the Civil War, the City experienced rapid growth due to its advantageous location at the nexus between the east coast and the Midwest. With the exception of Gordon Park, much of the CHEERS study area was industrialized during this period of time. The history of the site of the former FirstEnergy Plant dates back to the late 1800s when it was originally developed and operated as the United Salt Company Works processing plant and the Consolidated Steel Wire Company manufacturing plant.

The shape of the shoreline itself has changed dramatically over the City's long and storied history. In the 1800s, much of the CHEERS study area as we know it today did not exist. The original shoreline, shown in Figure 2, was as far south as the edge of Gordon Park. The 122-acre park was



➤ *Gordon Park Boulevard – 1900-1930 (the Cleveland Memory Project)*

➤ *Gordon Park beach and pavilion – 1908 (the Cleveland Memory Project)*



NEW LAND

Dredging and fill programs begin to create new land such as Burke Lakefront Airport & Dike 14 in the late 1970s.

INDUSTRY

Industry and rail activity harness the waterfront for manufacturing and movement of goods. FirstEnergy Lakeshore Power Plant constructed (1911).

1900s

1950s

1970s

2000s



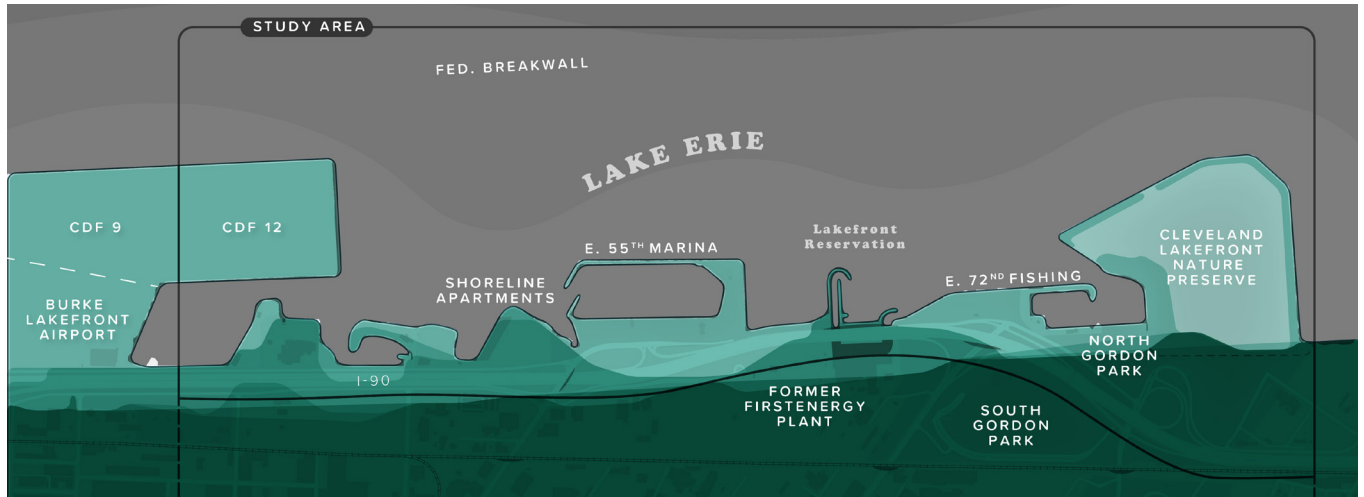
SUBURBANIZATION & HIGHWAY INFRASTRUCTURE

Cleveland reaches its peak population. Industry and transportation are the primary uses along the Eastern Embayment. Construction of I-90 begins, and bisects Gordon Park, altering the park experience for users.



PARK DEVELOPMENT

New investment in park spaces and natural areas occurred in the 2000s. The Port established the Cleveland Lakefront Nature Preserve (formerly Dike 14). Cleveland Metroparks took over operation of the Lakefront Reservation park spaces.



How the shoreline has changed over time. The darker green represents the oldest portions of the shoreline dating back to 1874 and earlier. Lighter green sections represent more recent infill of land along the shore.

SOURCE: NEARMAP, GOOGLE EARTH, ESRI

originally created by William J. Gordon, one of the founders of the Cleveland Iron Mining Company. Given to the city as a public park and recreation area in 1893, it became a popular destination for Clevelanders. The park was a welcome respite for residents seeking out natural beauty and a break from the hustle and bustle of the city. After its opening, a bathhouse, bandstand, and dance hall were added to enhance the visitor experience.

1900-1940s

Cleveland established its position as one of the nation's major manufacturing, shipping, and industrial centers by the early 20th century. The automobile was emerging and Cleveland was at the forefront of its development with multiple automotive companies headquartered in the city including the Winton Motor Carriage Company, the manufacturers of the first car to successfully drive across the United States in 1903. A new power plant within the CHEERS study area was completed in 1911 and began providing power for adjacent communities. The City's booming economy attracted migrants from across the country and immigrants from around the world. This influx of new residents led to continued population and economic growth throughout the 1920s.

Like many other cities throughout the country, the crash of 1929 and the Great Depression took a toll on the City and its residents. Despite these challenges, Clevelanders

Waves crash over Lakeshore Boulevard – 1940 (the Cleveland Memory Project)





persevered with the aid of the New Deal, Works Progress Administration (WPA) projects, and the Great Lakes Exposition in 1936. Structural issues and signs of decay in Gordon Park were remedied through WPA projects that rehabilitated bridges and rebuilt roads, culverts, dams, playgrounds, and ball fields.

When the United States entered World War II, Cleveland played a key role in manufacturing goods for the war effort, becoming the fifth largest manufacturing center in the country. Industrial development continued along the waterfront during this period. In the 1940s, the salt plant along the lakefront was removed and replaced with a truck service center and freight station. The new American Steel and Wire Company was constructed during this time period as well.


1950-1960s

The post-war era brought prosperity to the City with a new economic and population boom. By 1950, the population of the city exceeded 900,000. Sports teams were growing in popularity and experiencing success on the national stage while a new genre of music was dubbed “rock and roll” by a local radio DJ.

However, a new system of federal highways and the growing popularity of the automobile saw the migration of residents from city centers out to new and larger housing in the suburbs. Construction of Interstate 90 (Cleveland Memorial Shoreway, now known as the Shoreway) in the late 1940s was considered an improvement for connectivity – linking residents from Lakewood and the western suburbs to the larger city grid. But to make way for the highway, hundreds of homes were demolished and Gordon Park was bisected, displacing residents and further disconnecting neighborhoods from the lakeshore and community assets. While Gordon Park continued to offer recreation spaces for Clevelanders, the nature of the lakefront was forever changed with new barriers to access. During this period, additional fill was used to extend the shoreline further and accommodate the right of way for the highway.

Like much of the country, Cleveland was reckoning with discrimination and inequality that led to unrest in parts of the city as community leaders fought for civil rights throughout the 1960s. These issues were exacerbated by changes in the steel and railroad industries that led to slowing growth in the city’s economy and then to loss of jobs and key industries.



 Aerial view of the eastern lakefront after the construction of I-90 – 1961 (the Cleveland Memory Project)

CHEERS!

The nascent environmental movement was elevated to a new intensity in June of 1969 when industrial pollution caused the Cuyahoga River to catch fire. In 1968, Cleveland elected its first African-American Mayor – Carl B. Stokes – who made great strides in working to repair many of the city’s social and environmental wounds.

1970-1990s

Changes in federal and international trade policies in the 1970s and 1980s contributed to a recession that had a lasting impact on Cleveland. In 1978, the City became the first major city to default on federally-backed loans since the Great Depression. During this period, the city saw the closure of many of its steel production centers, which led to skyrocketing unemployment.

In the mid-1970s, industrial sites along the lakefront continued to operate with a portion of the FirstEnergy property used for various manufacturing purposes, including as a temporary fly ash staging area. The power plant also transitioned from coal-fired boilers to fuel oil. Excess material collected from dredging for navigation channels was used during this period to further extend the shoreline, creating a series of confined disposal facilities (CDF) for dredge material. Dike 14 (now known as the Cleveland Lakefront Nature Preserve) was created as one of these CDFs in the late 1970s. Previously, this area of the lakefront was used as a dumping site and landfill. Doan Brook, one of the streams that flows into the CHEERS study area, was partially culverted by the U.S. Army Corps of Engineers in 1976. The culverted portion extends from south of I-90, under Dike 14, and flows out into Lake Erie. Despite continued environmental issues along the lakefront during this period, the City and the Ohio Environmental Protection Agency began working together to implement measures from Clean Water Act of 1972 and the National Environmental Policy Act of 1973, which set the stage for later environmental and community resiliency measures. In the 1980s, city leadership focused on a plan for recovery that included new cultural, sports, and entertainment venues in Downtown, including FirstEnergy Stadium and the Rock and Roll Hall of Fame.

➤ Breakwater in front of the former FirstEnergy site (Cleveland Metroparks)

➤ Anglers fishing at Gordon Park – 1970s (the Cleveland Memory Project)





2000s-now

The city leadership's efforts to diversify the economy and focus on cultural assets, environmental protection, the arts, and healthcare have resulted in a new era of national prominence. The Cleveland Clinic is currently the largest private employer in the city and the state of Ohio, employing over 50,000 people (2019). Since 2010, Downtown Cleveland has experienced steady population growth and the city's population losses have started to stabilize after decades of decline.

While the majority of industrial uses along the CHEERS lakefront study area ceased operations in the 1970s and 1980s, the FirstEnergy Plant continued to generate power until 2015. Following the decommissioning of the plant, an environmental assessment was completed to determine what environmental remediation measures would be needed. In 2017, the power plant and stacks were imploded and FirstEnergy entered into the Voluntary Action Program with the Ohio Environmental Protection Agency.

Current leadership continues to push forward revitalization efforts that focus on the city's neighborhoods with initiatives furthering public health, wellness, environmental protection, economic development, equity, and education. The focus on community resilience and protecting community open space assets led to Cleveland Metroparks assuming operations of park spaces along the shoreline including Edgewater Park, Whiskey Island-Wendy Park, E. 55th Street Marina, and Gordon Park. This collection of waterfront parks is called the Lakefront Reservation. In 2011 Dike 14 was renamed Cleveland Lakefront Nature Preserve by the Port of Cleveland and in 2012, the CLNP opened to the public. This focus has also resulted in plans, studies, and projects to improve the health and resilience of the shoreline and the communities directly adjacent to the lakefront, including a vision master plan for the lakefront, combined sewer overflow containment measures and long-term control plans, greenway and bicycle network plans and pilot projects, and the CHEERS study.



View of the lakefront parks from the CLNP (WRT)

The Lakefront Today

THE STUDY AREA

The study area is located along the eastern Cleveland lakeshore, about two miles from Downtown. The area is bounded by the Burke Lakefront Airport to the west, the Cleveland Lakefront Nature Preserve to the east, and extends north to the Breakwall and south to I-90. To ensure neighborhoods adjacent to the study area were included in the process and that linkages were studied, a community outreach focus area was established. The community outreach focus area extends further south to St. Clair Avenue, incorporating a portion of the St. Clair-Superior, Goodrich-Kirtland Park, and Glenville Neighborhoods.

ZONING & LAND USE


The study area is located within an industrial corridor running adjacent to I-90 from Downtown to Rockefeller Park. Many of these industrial facilities are located immediately adjacent to the south of the study area. Large areas of industrial use coupled with other physical barriers, such as the rail lines and the interstate, limit access from the residential neighborhoods. The major commercial corridors in the neighborhood are St. Clair Avenue and E. 55th Street. The inland residential neighborhoods are predominately detached single family homes with community-serving uses including schools, faith-based institutions, and community retail.

Most of the Lake Erie shore in the City of Cleveland is dominated by industrial use or private residences. A small portion of the study area's shoreline is reserved for publicly-accessible parks within the Lakefront Reservation, including Cleveland Metroparks East 55th Street Marina and Gordon Park, which provide much needed public greenspaces with amenities such as public boat ramps, fishing areas, restrooms, and food services. Smaller pockets of utility (e.g., I-90 and the Burke Lakefront Airport), industrial (e.g., Cleveland Public Power), and residential uses (e.g., the Shoreline Apartments) make up the remaining portion of the land uses along the lakefront.





TO DOWNTOWN CLEVELAND >

The study area is located on the east side of Cleveland, only two miles from Downtown Cleveland. 

SOURCE: CUYAHOGA COUNTY GIS

A Walk Through the Eastern Lakefront



A **Burke Lakefront Airport**

Cleveland's Burke Lakefront Airport has ongoing dredge management and disposal areas that offer wildlife habitat, but are in conflict with aviation operations, putting birds and planes at risk. Since 1990, 587 birds of 44 identified species have been struck by planes at the airport (BKL strike data).

B **CDF 12**

This confined disposal facility was developed to hold dredged material from the Cuyahoga River, allow for dewatering, and potential reuse of the material.

C **Lakeshore Yacht Club**

The Lakeshore Yacht Club was originally founded in 1930 and moved to its current location in 1932. Since then, the club has undergone a number of renovations and expansions. Today, the club offers 250 boat slips and other amenities.

D **Cleveland Public Power**

Cleveland Public Power operates a facility in the western portion of the study area. The building, which can be identified by its distinctive whale mural, is situated next to a small public parcel of park land that extends to the water's edge.

E **Forest City Yacht Club**

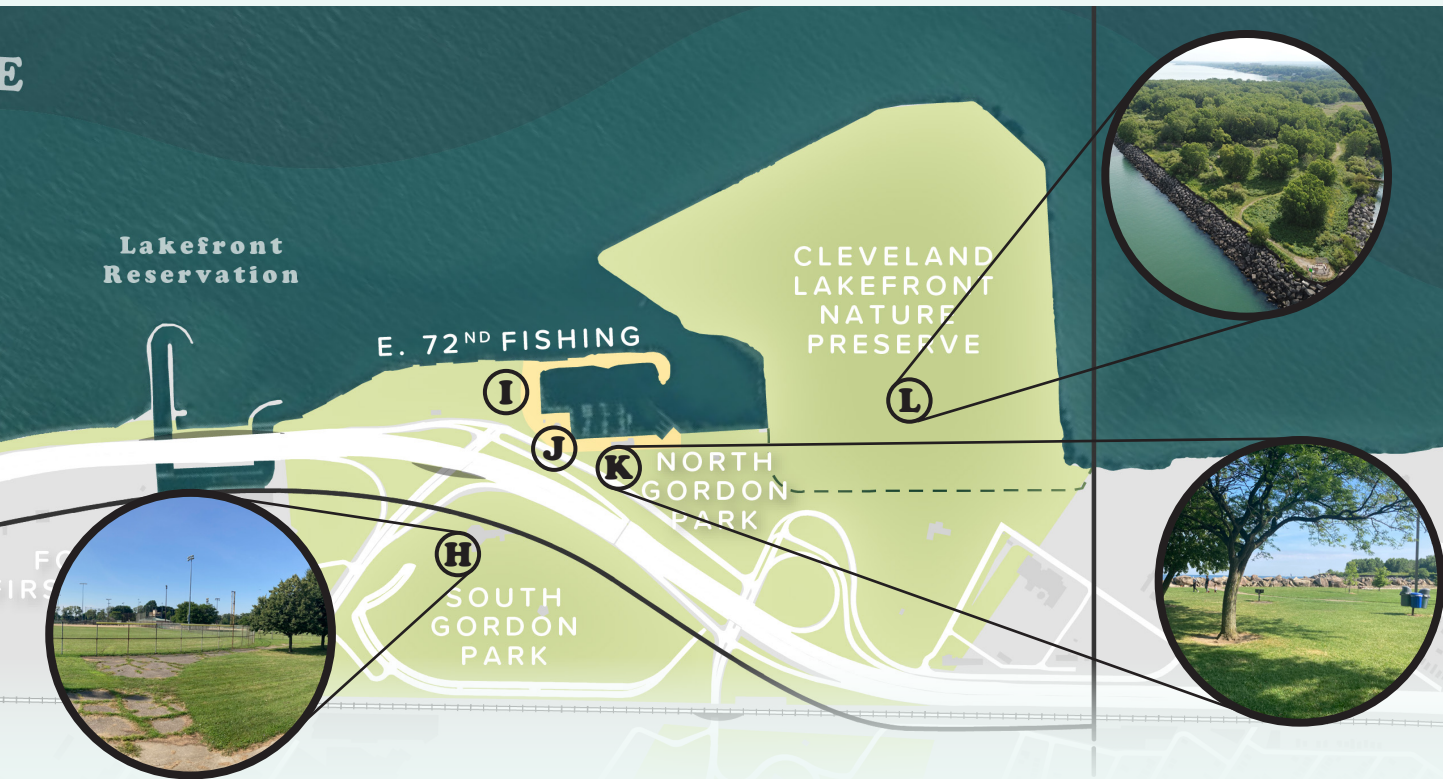
Forest City Yacht Club is one of three private clubs located within the study area. Members have access to year-round activities and docks for powerboats and sailboats sized up to 40 feet. The club was established over 75 years ago and provides storage for over 125 member-owned watercraft.

F **Shoreline Apartments**

The Shoreline Apartments (formerly known as Quay 55), a private 5-story, 160+ unit building, is the only residential property located in this portion of the lakefront. The owner, Landmark at the Lake, LLC recently purchased the 4-acre vacant site adjacent to the Shoreline Apartments to develop a second apartment building with 214 apartments.

G **E. 55th Marina**

The E. 55th Marina, operated by Cleveland Metroparks, is a popular spot for anglers and boaters with a 1,200-foot fishing platform and 352 seasonal wet slips. In addition to the boating amenities, E. 55th includes spaces for picnicking, sand volleyball courts, and dining at the E55 on the Lake restaurant with an expansive patio that overlooks the water.



H South Gordon Park

The southern portion of Gordon Park is managed by the City's park division. It contains more traditional active recreation amenities, including bike polo courts, walking trails, 5 ball fields, tennis courts, a playground, and other recreation amenities.

I E. 72nd Fishing Area

This area is one of the most popular fishing locations in the study area, with multiple platforms for fishing, ample amounts of parking, areas for picnicking, and direct access from E. 72nd Street. Based on parking and traffic data from 2019, this area is particularly popular during the peak summer months (June – August). A new comfort facility, funded by Holden Parks Trust, opened in the spring of 2021.

J InterCity Yacht Club

The InterCity Yacht Club is a privately-operated yacht club that provides access, events, and storage for members throughout the year. Organized in 1968, the InterCity Yacht Club is one of only two predominantly African-American yacht clubs in the country.

K North Gordon Park

Gordon Park was originally one large 122-acre park on the banks of Lake Erie. Now the park is divided into two by I-90 and connected by a pedestrian bridge. The northern portion, managed and operated by Cleveland Metroparks, extends to the shoreline and includes a 6-lane boat launch, restrooms, and picnic lawn space.

L Cleveland Lakefront Nature Preserve (CLNP)

The CLNP, previously Dike 14, is an 88-acre publicly accessible nature preserve. The peninsula, owned and managed by the Port, was constructed as a confined disposal facility for dredged material. It opened to the public in 2012 after the site was deemed safe for passive recreational use. Now, visitors hike the 2.5 miles of trails, bird watch, take in expansive vistas of the lakefront and Downtown Cleveland, and explore the native vegetation and wildlife. The CLNP provides an immersive nature experience with over 280 species of birds, 41 species of butterflies, 35 different plant species, and various animals identified within the confines of the preserve.

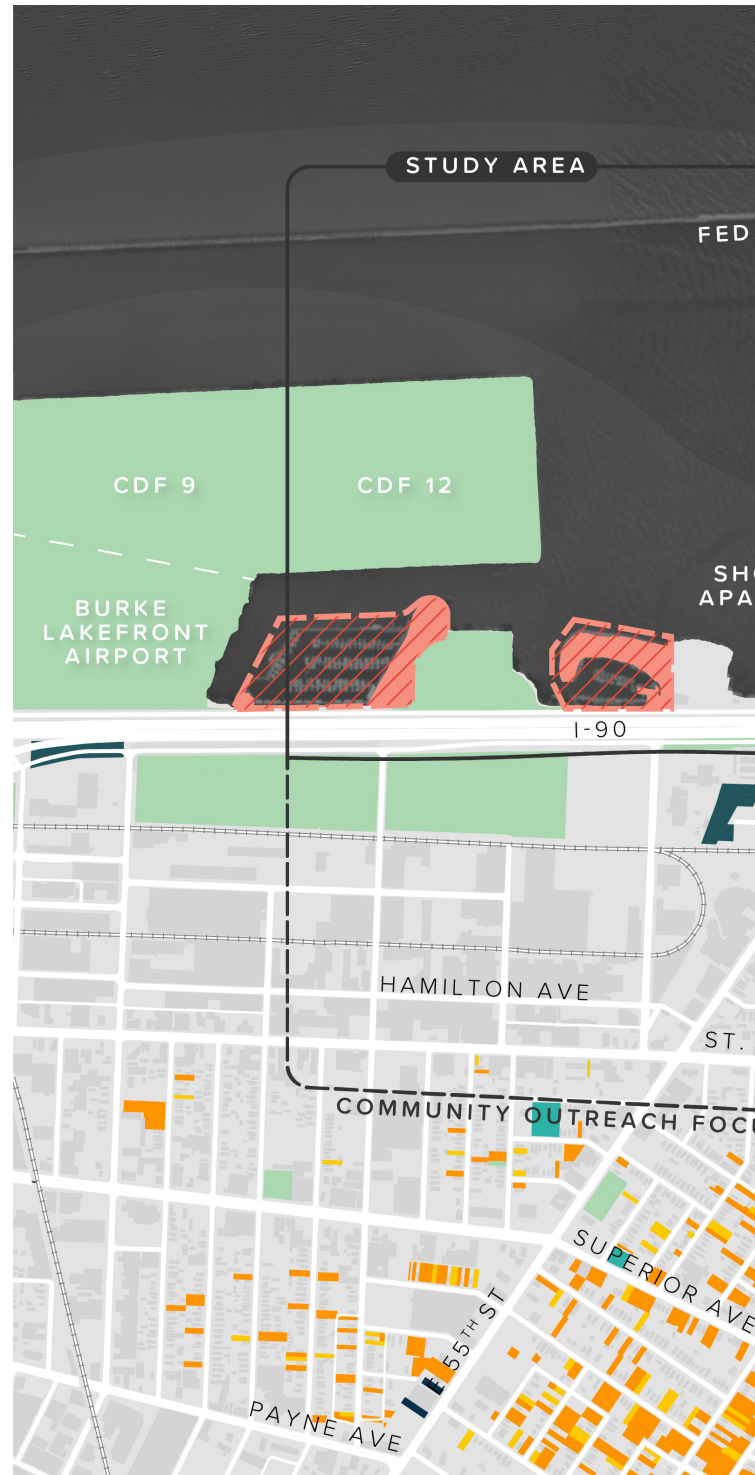
OWNERSHIP & VACANCY

Ownership

While most of the land use in the study area is publicly owned, access to these spaces varies. Properties are owned and operated for various uses by the Port of Cleveland, the State of Ohio, the City of Cleveland, Cleveland Metroparks, and the federal government. Cleveland Metroparks assumed the management of the lakefront parks in 2013, which had previously been operated by the City of Cleveland and most recently, by the Ohio Department of Natural Resources (ODNR). Since 2013, the Cleveland Metroparks has made significant strides to transform these underutilized and under-maintained parks into destinations of choice along the city's lakefront. The Park District has thoroughly cleaned the parks, increased Police presence to improve safety, and made significant capital investments of over \$18M across its Lakefront Parks. However, varied ownership, barriers to access, and the few private parcels along the lake create a disconnected lakefront experience for users.

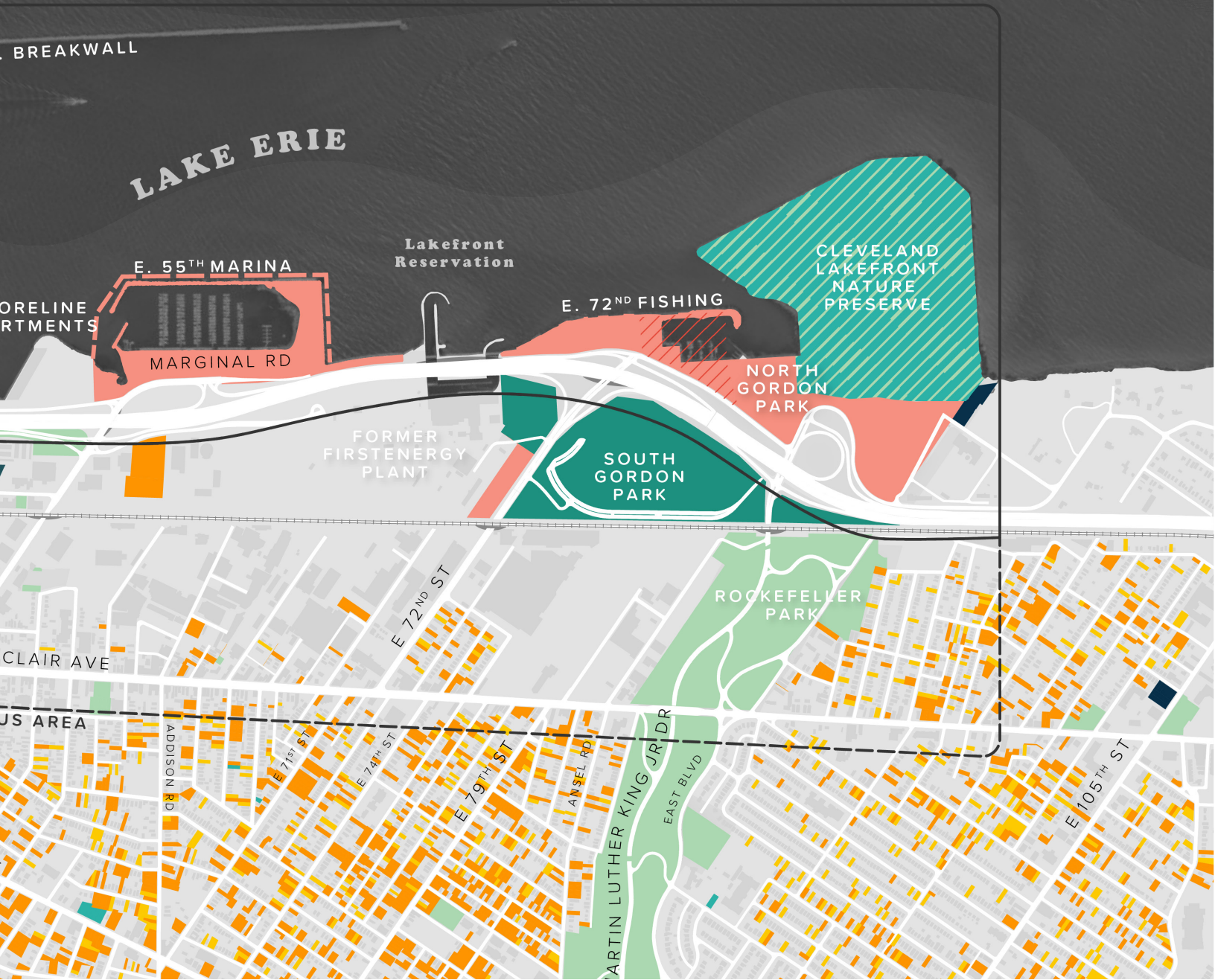
Vacancy

The study area (north of I-90) does not contain any vacant parcels. However, the community outreach focus area (south of I-90) includes a number of land-banked parcels that are owned by the City and the county. The most significant vacant property adjacent to the lakefront is the former FirstEnergy Power Plant site just south of I-90, which presents an opportunity for the City and other partners to manage its redevelopment in a way that promotes access to the lakefront and equity. There is an opportunity to leverage these existing vacant parcels to extend greenways from the lakefront into the adjacent communities, implementing some of the stated goals from the Cuyahoga County Greenways Plan and the Re-Imagining a More Sustainable Cleveland vacant lot revitalization plan.



Legend

- City Land Bank
- City Owned
- County Land Bank
- County Owned
- Metroparks Lease
- Port Owned
- Metroparks Subleased
- State Owned
- Federally Owned
- Park (City) Owned



The map above depicts the varied ownership of public parcels and provides the location of county and city land-banked parcels within or adjacent to the study area.



SOURCE: CLEVELAND CITY GIS

DEMOGRAPHICS

While the majority of the study area and community outreach focus area is not residential, about 3,500 residents live within the boundary of these areas. Of this population, 80.8% are African American or Black, 15% are White, and 0.7% are Asian. The average household income is \$38,501, and 33.1% live below the poverty line.

About 79,000 residents live within a three-mile bike ride of the study area. Of this population, 81% is African American, 71% report a household income of less than \$35,000, and 36% of households do not own a vehicle.

The neighborhood adjacent to and within the study area, St. Clair-Superior, is a diverse and culturally-rich community with a resident-driven goal to revitalize the neighborhood in response to past loss of industry, disinvestment, and vacancy. This neighborhood is quite vulnerable to the threats of climate change based on both its waterfront location and sociodemographic factors including race, educational attainment, and income (Hardy, 2017; Cleveland Neighborhood Progress, 2015). While the city as a whole faces greater sociodemographic challenges associated with climate change and storm hazard vulnerability when compared to the rest of Cuyahoga County, the risk to St. Clair-Superior and the east side of Cleveland is higher still. Compared to the city, in St. Clair-Superior, 18.9% more of the population is non-white, 24% fewer adults have a high school diploma, and 18.4% more households are below the poverty line (U.S. Census Bureau, 2009). The confluence of physical challenges associated with the lakefront and these statistics indicates that the communities adjacent to the study area are at a higher risk of negative impacts associated with coastal climate threats due to a lack of institutional and financial resources available to absorb damages and remain resilient during long-term stressors and short-term shocks (Hardy, 2017).

INCOME + ECONOMY

The study area is home to about 3,500 residents. Businesses in the area employ 4,000 residents in 252 active establishments, primarily located along the study area's two commercial corridors and within the industrial fabric south of I-90. The median household income for area residents is \$20,584, compared to \$26,150 for the City of Cleveland.

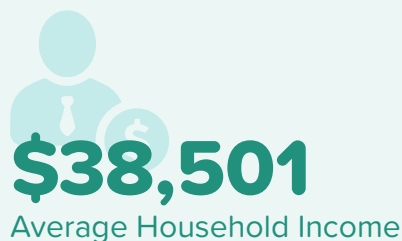
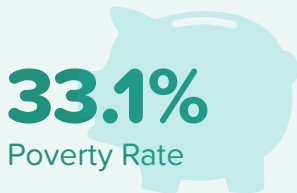
Like many areas in Cleveland, the neighborhoods intersecting the study area are still dealing with the effects of sprawling suburban growth, white flight, a decline in population, and loss of industry. These trends have led to concentrated poverty in core city neighborhoods, disinvestment in infrastructure, increased vacancy and blight, and growing racial and economic segregation. The neighborhoods within and adjacent to the study area are vibrant, but socially vulnerable and at a greater risk to negative impacts of climate change.

The Cleveland Neighborhood Progress Climate Resilience Plan incorporates social vulnerability metrics and identifies "protecting residents and neighborhoods from flooding, increased precipitation, and extreme weather events" in its top three priorities and details the need to focus on resiliency measures for these vulnerable and at-risk neighborhoods (Cleveland Neighborhood Progress, 2015). A detailed resiliency study of four neighborhoods in Cleveland, including the Glenville neighborhood that is immediately adjacent to the study area, was performed between 2016 and 2017 under the "Climate Smart Cities" program by The Trust for Public Land. This effort looked at the impacts that parks, open space, and green infrastructure, including living shorelines, can have on communities to improve overall resiliency, especially for at-risk populations. The objectives of the program were organized around four areas: Connect, Cool, Absorb, and Protect. An interactive GIS-based mapping tool was developed to assist with scenario planning related to resiliency efforts in the City of Cleveland. This tool was utilized during the study to aid in visualization of future conditions.

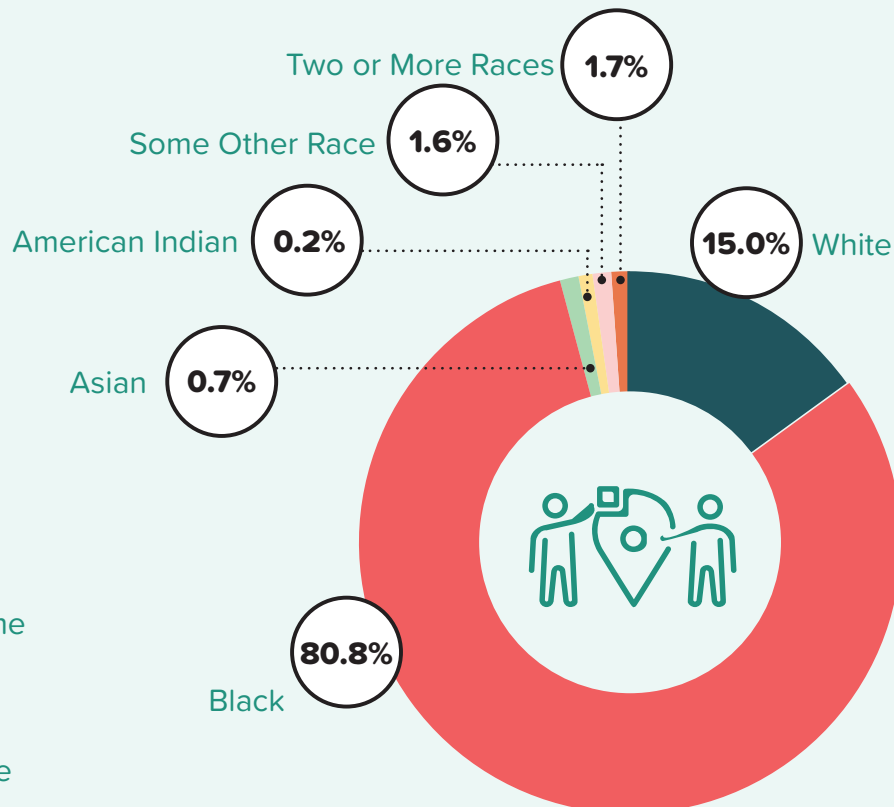
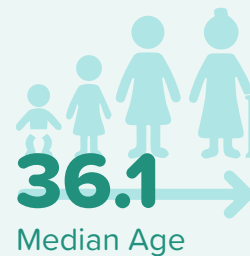
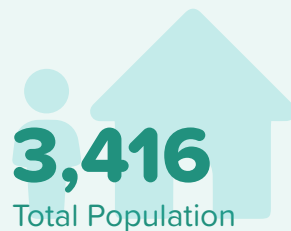
The Community Outreach Area

The Community Outreach Area includes portions of the St. Clair-Superior, Goodrich-Kirtland Park, Downtown Cleveland, and Glenville neighborhoods.

Economy



Demographics



NEIGHBORHOODS

Four Cleveland neighborhoods – St. Clair-Superior, Goodrich-Kirtland Park, Downtown Cleveland, and Glenville – directly intersect the CHEERS study area and community outreach focus area. Each of these neighborhoods is unique with its own community conditions and cultural identity. Strengthening and creating safe connections from these neighborhoods to the lakefront are a key focus of the CHEERS study to ensure that all Clevelanders have the opportunity to enjoy the lakefront for generations to come.

Community Development Corporations (CDCs) are non-profit organizations that focus on revitalizing and supporting communities. CDCs provide support for affordable housing, deliver community services including job training, help develop areas of the community, and connect residents to social programs. The CDCs in the surrounding neighborhoods provided crucial support throughout the engagement process, helping to connect residents to the process.

St. Clair-Superior

St. Clair-Superior is one of the most diverse neighborhoods in the city. The neighborhood is bounded by Lake Erie to the north and Superior Avenue to the south and E. 55th Street to the west and Martin Luther King Jr. Drive to the east. It was originally founded in the late 1800s and populated by immigrants from Eastern Europe as the industry rapidly took hold in Cleveland and immigrants from Lithuania and Slovenia moved to the area for work. Demographic shifts in the 1990s transformed the neighborhood from majority white to majority minority with African-American residents making up 79% of residents. The St. Clair Superior Development Corporation, the local CDC, was founded in the 1990s to organize residents and aid in the revitalization of the area. Today, the area is home to a thriving arts scene, unique cultural enclaves, a growing industrial district, and vibrant commercial corridor along St. Clair Avenue. Despite economic challenges, the neighborhood has undergone significant transformation and community-led revitalization efforts, that are still ongoing, to renovate existing homes and reuse vacant lots. Currently, the neighborhood is divided by I-90 and the rail lines, disconnecting residents from their lakefront.

Goodrich-Kirtland Park

Goodrich-Kirtland Park, which also includes part of AsiaTown, is roughly bordered by E. 55th Street to the east and I-90 to the west and Lake Erie to the north and Euclid Avenue to the

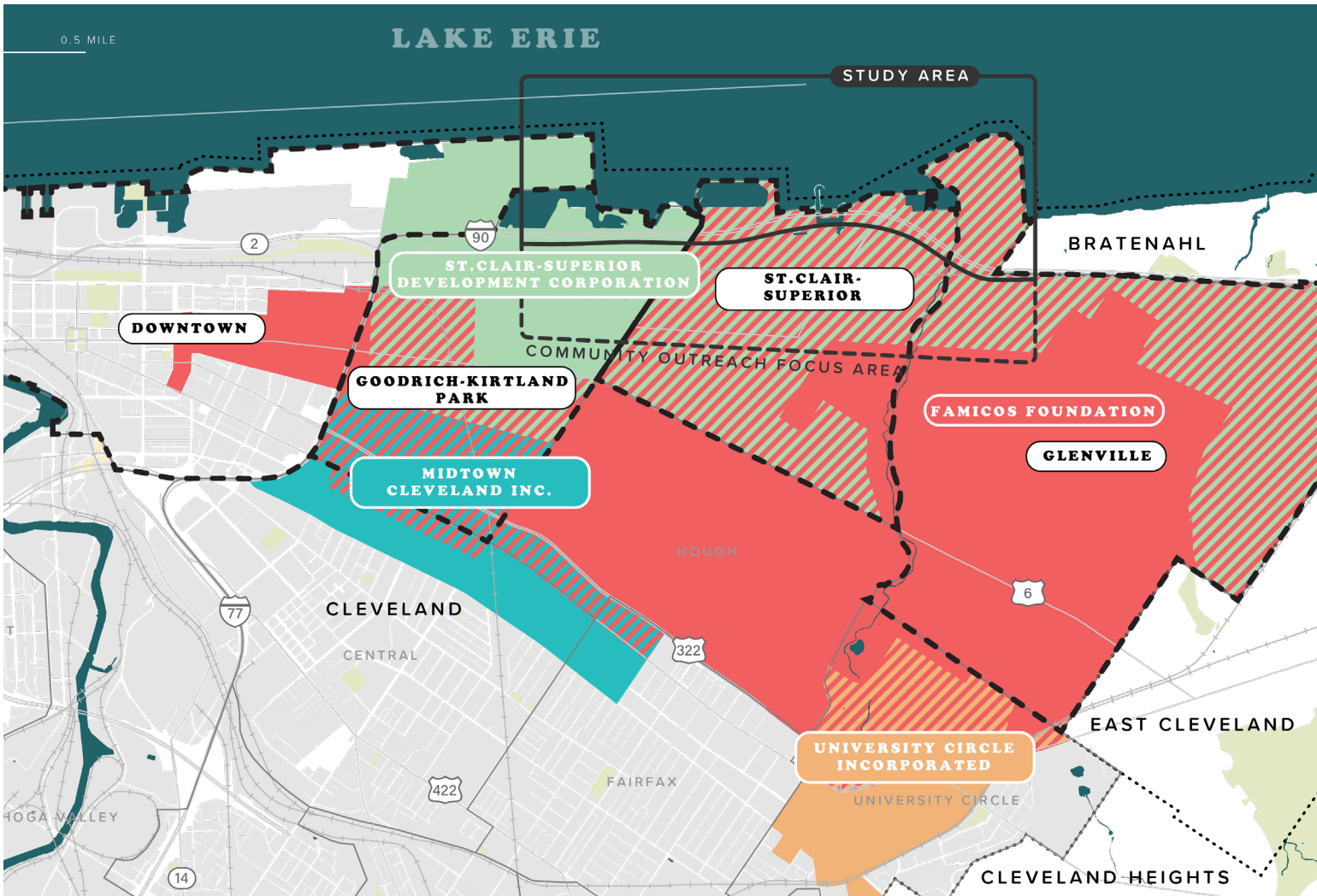
south. Once referred to as Chinatown, the area welcomed Chinese immigrants and railroad workers in the late 1800s. The neighborhood was a thriving ethnic enclave for Chinese immigrants and descendants from the 1930s to the 1960s. In the 1970s, new residents moved into the neighborhood and many second and third generation families moved out to the suburbs for the promise of larger homes and economic prosperity. During this time, there was an influx of Korean, Vietnamese, and other Asian immigrants leading to a new resurgence of AsiaTown that continues to this day. Today, AsiaTown is a cultural destination, hub of businesses and retail, and a thriving community. Three community development organizations serve this neighborhood – MidTown, Campus District, and St. Clair-Superior Development Corporation.

Downtown Cleveland

Downtown, also referred to as the central business district, is considered the economic center of the city. Downtown was an important part of the city's development, containing the port, much of the rail infrastructure, and the civic and government buildings. The city and Downtown experienced continued economic growth through the mid-20th century, but by the 1960s, economic growth slowed as population and development continued spreading out into the suburbs following the expansion of the highway system. Sprawling development, population loss, and economic stress led to concentrations of low-income and impoverished residents in core city neighborhoods with increasing vacancy, blight, and disinvestment. Since the 1990s, the city has undergone numerous revitalization efforts to attract new residents, diversify the economy, and develop unique cultural enclaves and destinations. Downtown has been at the forefront of this effort with a population that has grown more than any neighborhood in the city between 2000 and 2010. The Downtown Cleveland Alliance non-profit organization has aided the City in many of these revitalization efforts to make Downtown a thriving neighborhood and economic center. The Downtown lakefront and the connections via trails and transit are key to ensuring that the Cleveland Lakefront is a cohesive and distinct regional destination.

Glenville

Glenville is located on the eastern side of the study area and includes the Cleveland Lakefront Nature Preserve and a large portion of Rockefeller Park. Glenville, once an independent village founded as a resort community for wealthy Clevelanders, was annexed by the City of Cleveland



in 1904. From its founding until the early mid-20th century, Glenville was a predominantly Jewish neighborhood with a thriving commercial corridor of stores, restaurants, and synagogues. Many of these residents left the neighborhood in the 1950s and 1960s for the rapidly expanding suburbs east of the city. Today, the neighborhood is majority minority with African Americans making up over 97% of the population. The neighborhood has experienced a great deal of disinvestment and economic strife over the past few decades evidenced by vacancy, crumbling infrastructure, and high concentrations of poverty. However, the Famicos Foundation and the Mayor’s Neighborhood Transformation Initiative have helped lead revitalization efforts to promote housing repair, education, engagement, quality of life investments, and commercial revitalization throughout the community. A newly budding arts scene and natural assets like Rockefeller Park, the Cleveland Lakefront Nature Preserve, and the Cleveland Cultural Gardens have resulted in a resurgence of interest in this storied and historic neighborhood.

Diverse and vibrant communities and neighborhoods surround the eastern lakefront. The white labels and dashed black lines depict individual neighborhood boundaries and names. Colored areas represent CDC service areas. Hatched areas with one or more color represent areas where CDC service areas overlap.

SOURCE: CLEVELAND CITY GIS

Building on Previous Work

Recognizing the immense value of building on previous engagement and planning efforts, the team reviewed numerous relevant proposals and studies whose scope overlapped with the CHEERS study area.

Site Studies & Engineering Reports

BENEFICIAL USE SUITABILITY CLEVELAND HARBOR DREDGED MATERIAL *USACE, 2011*

This report assess the feasibility for beneficial use of material dredged from the Cleveland Harbor. About 300,000 cubic yards (CY) of dredged material are removed each year to ensure the navigability of the federal channel.

I-90 SAFETY STUDY *ODOT prepared by LJB Incorporated, 2015*

This study evaluated the existing safety performance on I-90 and at the interchanges with E. 55th Street, 72nd Street, and MLK Jr. Drive. The purpose of the study was to determine methods to reduce crashes along these segments of I-90. Between 2011 and 2013, 405 crashes were recorded in this area of I-90, two of which were fatal.

FIRSTENERGY LAKESHORE REUSE *FirstEnergy by Arcadis, 2017*

This study was prepared in advance of the demolition and potential sale of the former FirstEnergy plant located at 70th Street and the lakefront to determine what remedial activities would be required.

Parks, Trails & Lakefront

WATERFRONT DISTRICT PLAN *SmithGroup, 2004*

The 2004 waterfront plan provides a vision for the Cleveland waterfront as a “the most vital element in the transformation of Cleveland as a place to live, work, and play.”

CLEVELAND LAKEFRONT MASTERPLAN GREEN INFRASTRUCTURE OVERLAY *OLIN Studio, 2014*

The Cleveland Lakefront Green Infrastructure Overlay identifies Cleveland Metroparks’ aspirations for sustainability and green infrastructure in lakefront parks and provides guiding principles to help inform future planning efforts.

WALK BIKE SHED ANALYSIS *Cleveland Metroparks, 2015*

This study assesses the population within a one-half mile walk and three-mile bike ride of the Lakefront Reservation (E. 55th and North Gordon Park).

CNP CHARRETTE CLEVELAND LAKEFRONT CONCEPT *Human Nature with St. Clair-Superior Development Corp., 2018*

In 2018, Cleveland Neighborhood Progress and the St. Clair-Superior Development Corp. organized a design charrette to develop a vision and coordinated approach to development to transform the underappreciated lakefront into a first-rate asset.

CUYAHOGA GREENWAYS PLAN *Cuyahoga County Planning in partnership with Cleveland Metroparks, funded by Northeast Ohio Areawide Coordinating Agency (NOACA); prepared by SmithGroup, WSP, and Guide, 2019*

Funded by a Transportation for Livable Communities Initiative Planning Study (TLCI), this plan proposes greenways and urban trails to connect existing assets and provide more mobility options.

LAKEFRONT RESERVATION MASTER PLAN *Cleveland Metroparks, 2019*

This annotated site plan identifies place-based opportunities for enhancing the natural and social functions of the Lakefront Reservation (collection of park spaces along the waterfront).

Sustainability & Ecology

ECOCITY CLEVELAND, ECOLOGICAL RESTORATION OPPORTUNITIES FOR CLEVELAND'S LAKEFRONT

BLUE (Building a Livable Urban Edge) Project of EcoCity Cleveland & the Cleveland Waterfront Coalition, 2002

In 2002, EcoCity Cleveland organized a collaborative workshop to develop strategies to restore the ecological integrity of Cleveland's lakefront and raise public awareness of the potential to bring nature back into the city.

VIBRANT NEO 2040 NORTHEAST OHIO SUSTAINABLE COMMUNITIES CONSORTIUM

Northeast Ohio Sustainable Communities Consortium (NEOSCC) with Sasaki, 2014

This three-year regional planning process, led by the NEOSCC, sought to answer three questions about the future of Northeast Ohio – what course is Northeast Ohio on; what future does Northeast Ohio want for itself; and how do we make that future a reality? The plan lays out three potential future scenarios – Grow the Same, Do things Differently, and Grow Differently.

RE-IMAGINING A MORE SUSTAINABLE CLEVELAND

Cleveland Neighborhood Progress, City of Cleveland Planning Commission, LAND Studio, the Cleveland Urban Design Collaborative at Kent State University, funded by the Surdna Foundation, adopted in 2008 and updated in 2014

This plan focuses on creating city-wide strategies for the reuse of vacant land. Since Cleveland's loss of population over the last 60 years is unlikely to reverse in the near-term future, the city was looking for a strategy to deal with vacant land.

CNP CLEVELAND CLIMATE RESILIENCE AND URBAN OPPORTUNITY PLAN

Cleveland Neighborhood Progress with City of Cleveland, Mayor's Office of Sustainability, Cleveland Urban Design Collaborative at Kent State University, University of Buffalo, funded by Kresge, 2015

The plan used an asset-based and social-network approach to planning for climate change. It lays out strategies for preparing the city for a future with more frequent heat waves, storms, increases in heavy precipitation and associated flooding, and longer freeze-free seasons.

PORT 2015 CLEVELAND LAKEFRONT NATURE PRESERVE MANAGEMENT PLAN

Davey Resource Group, 2015

The plan lays out a long-term management plan to implement the vision of the CLNP as a wildlife sanctuary for the community to enjoy by actively managing the preserve for a healthy native habitat.

ODNR LAKE ERIE PROTECTION AND RESTORATION PLAN (LEPR)

Ohio Lake Erie Commission, 2016

This state-prepared plan provides a list of priority areas, goals, and strategic objectives for the conservation and restoration of Lake Erie's coastal ecosystems.

NEO STORM HAZARD VULNERABILITY STUDY

Scott D. Hardy – Ohio Sea Grant College Program at The Ohio State University, 2017

An academic study to assess the risk and vulnerability of communities within the Northeast Ohio Regional Sewer District (NEORS). The study evaluated 42 communities and ranked them against each other using indicators of vulnerability, both social (e.g., gender, ethnicity, age, housing, and income) and environmental (e.g., flood risk, erosion, debris, water quality). Results suggest this region has a large percentage of low-income residents who would inherently struggle with remaining resilient in the face of increasing environmental issues.

DOAN BROOK ESTUARY FEASIBILITY STUDY CMAG

Doan Brook Watershed Partnership, prepared by EnviroScience, 2019

Provides an analysis of several proposed restoration alternatives for Doan Brook and provides a preferred alternative. The study included a feasibility study and analysis of ice flow, hydraulic modeling, water quality, regulatory requirements, and other pertinent environmental concerns to better inform future phases and implementation.

HOW THE LAKEFRONT IS USED TODAY

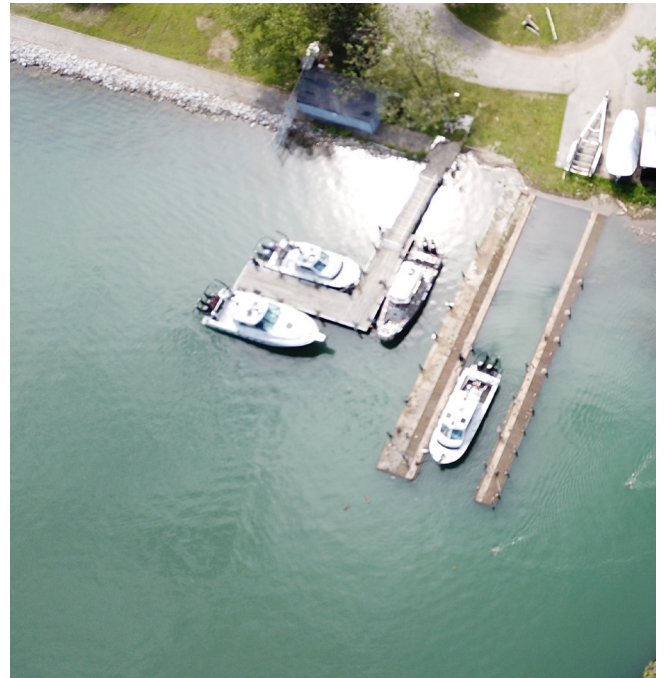
The lakefront is a popular destination for Clevelanders. From walking and biking trails to bird watching hot spots and fishing and boating destinations, the eastern lakefront provides a variety of recreation experiences. In 2020, Cleveland Metroparks, eastern lakefront parks received over one million visitors. Visits to the parks have steadily increased over the past four years with more than 800,000 visitors each year (2020 Cleveland Metroparks Visitation Report).

Nature

The shoreline is an important stopover for migrating birds, bats, and insects, making it a popular location for birders and nature enthusiasts. Multiple locations within the study area are migrant “hot spots” (eBird) and fall within the National Audubon Society’s “Important Bird Areas.” Over 280 documented bird species have been observed along the lakeshore including federally-listed species such as Kirtland Warbler, Red Knot, and Piping Plover. While terrestrial nearshore habitat in and around the study area is limited, this area remains a very important migratory stopover point, in part because it is one of the few spots along the lakefront with intact, native soils. Birding destinations along the lakefront include the Cleveland Lakefront Nature Preserve.

Community Recreation

South and North Gordon Park provide the largest available recreation spaces. The northern portion of Gordon Park is operated by Cleveland Metroparks and includes more waterfront-related amenities, including a boat launch, parking, and an open lawn for picnicking and other passive uses. The southern portion of Gordon Park is operated by the City and includes some traditional active recreation uses with ball fields, a playground, lawn space for passive recreation, and visitor amenities (e.g., restrooms, water fountains). Aside from these two locations, there is limited active recreation and passive lawn space throughout the remaining portion of the study area with the majority of recreation space devoted to water-based activities and parking. The E. 55th Marina provides one of the only active recreation opportunities with sand volleyball courts adjacent to fishing and picnic areas. Additional opportunities for passive recreation include walking, biking, and hiking trails. The CLNP provides 2.5 miles of passive trails while the Lakefront Trail crosses east-west through the study area and connects to the Harrison Dillard Trail through Rockefeller Park.





Water Recreation & Resources

Water recreation is one of the most popular activities within the study area – from stand-up paddling, kayaking, and boating to fishing and taking in the scenic water vistas. The area provides myriad options for engaging with the water.

Public fishing and boating areas are located at the E. 55th Marina, the breakwater adjacent to the former FirstEnergy Plant, the E. 72nd Fishing area, and the North Gordon Park Boat Launch. The North Gordon Park Boat Launch provides one of the only places with public ramps where visitors can launch watercraft into the lake. The area is also home to a series of private clubs that provide access to members, including the Lakeside Yacht Club, Forest City Yacht Club, and InterCity Yacht Club.

The area is a popular fishing spot for local residents who enjoy using the lakefront regularly to fish for recreation and to eat. Many anglers surveyed in this location in both 1997 and 2019 reported that they or someone they know eat the fish they caught or displayed characteristics of subsistence fishing. Subsistence fishing is not uncommon in the Great Lakes where over four million people consume fish caught from the lakes each year (Arima, 2019). The high rate of subsistence fishing in the area highlights the direct connection between ecosystem health and the health of lakefront communities as many fish in urbanized areas are known to have higher concentrations of harmful industrial pollutants. Improving fish habitat will support local anglers and will also foster a better connection between the lake and residents, create support for environmental stewardship within the larger community, and help connect more residents to the lake.

The area is a popular sportfish destination. The existing bulkhead and steep shorelines do not provide adequate cover for spawning or feeding. Despite the limitations of existing in-water habitat, this area of the lakefront is quite popular with anglers. Anglers in this area record catching a variety of fish, including Perch, Steelhead, Large and Smallmouth bass, Sunfish, Northern Pike, and Walleye. In addition to recreational fishing, organizations throughout the area host fishing tournaments like the Walleye Fall Brawl tournament that draws thousands of participants from across the city and region.

◀ left: boats docked in the eastern lakefront, playground in South Gordon Park, the Bird Nerds at the CLNP (sources: Cleveland Metroparks, City of Cleveland, WKYC)

right: swings at E. 55th Marina, anglers at E. 55th Marina, paddleboarding on Lake Erie, young anglers (sources: Cleveland Metroparks, WRT)