

Lake Monona Waterfront Design Challenge

RFQ #10082-0-2022-BP



A

Agency
Landscape + Planning

November 7, 2022








SHORT

“FILL”

FAST

SUMMER



**POTENTIAL
NEVER FULLY
REALIZED**

**ECOLOGICALLY
COMPROMISED**

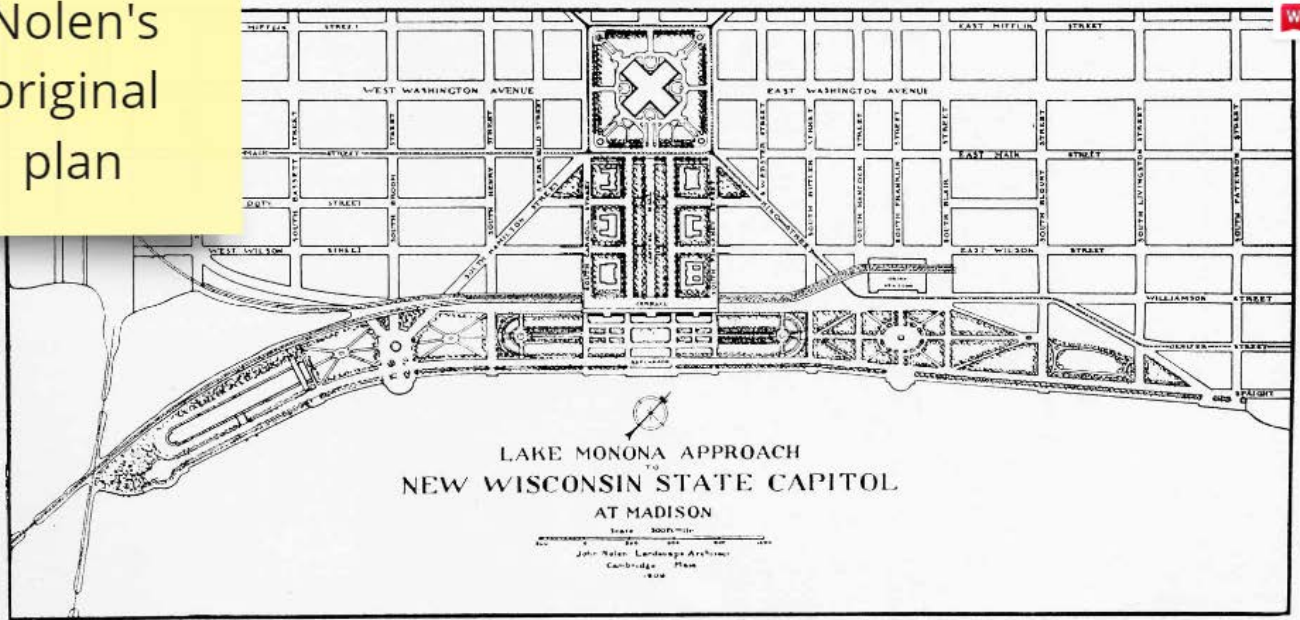
**UNSAFE AND
UNWELCOMING**

**LIMITED USE
AND USERS**

An aerial photograph of a city waterfront. In the foreground, a multi-lane highway runs parallel to a body of water. A red car is visible on the left side of the highway, and a white car is on the right. The word "ONLY" is painted on the road surface. To the left of the highway, there are railroad tracks. The middle ground is filled with a dense urban area featuring various buildings, including a prominent white domed capitol building in the center. The background shows more city buildings under a clear blue sky. The water on the right has a small boat. The overall scene is bathed in the warm light of late afternoon or early morning.

**“GREATEST DEVELOPMENT
OPPORTUNITY OF THE
21ST CENTURY”**

John Nolen's original plan



PROPOSED GENERAL PLAN.

No. 628, A.]

[Published August 3, 1927.

CHAPTER 485.

AN ACT to establish a dock line on Lake Monona, Dane County, Wisconsin.

The people of the State of Wisconsin, represented in Senate and Assembly, do enact as follows:

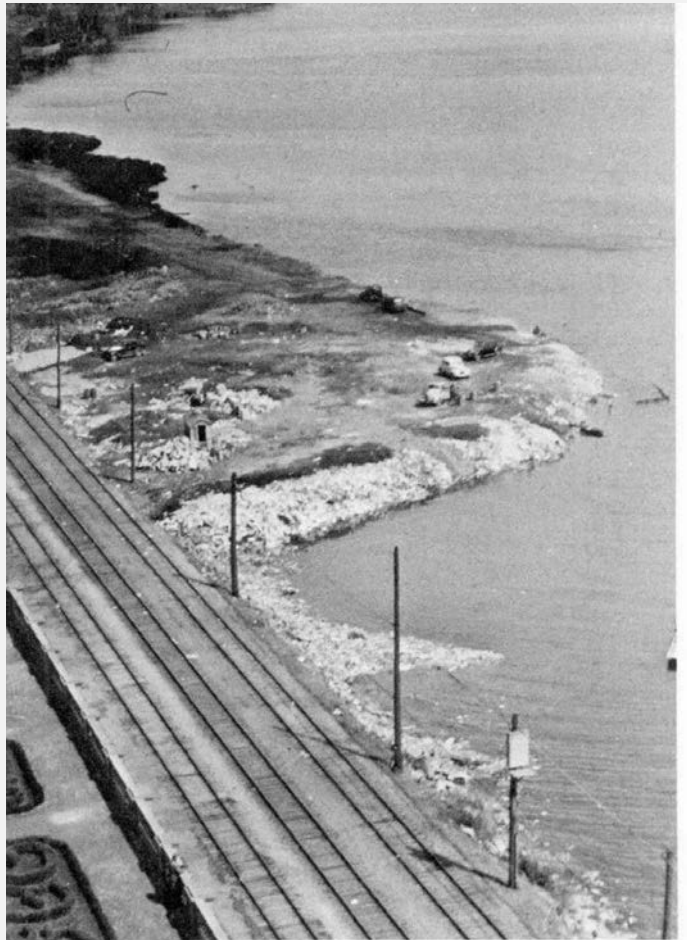
SECTION 1. A dock line on Lake Monona, Dane county, Wisconsin, established as follows: Beginning at a point on the section 17, town 7 north, range 10 east, distant 960 feet from the northeast corner of said section 17: thence south 1 degree and 54 minute curve, to the left, a distance of 3250 feet to the boundary line of Sunset View Park, Grove, Dane county, Wisconsin, which point is distant 1900 feet from

track of the portion of the first part."
 Ch. 485, Laws of 1927, established a dock line on Lake Monona along a very substantial portion of its boundaries. Part of the dock line so established from the outer boundary of the area involved in this lawsuit. Ch. 301, Laws of 1931, created a new section of ch. 485, Laws of 1927, reading as follows:
 "Said dock line on Lake Monona established by this chapter, is hereby declared to be so established only for the purpose of authorizing said city of Madison to construct and maintain on, in, or over said Lake Monona, but not beyond and established line, parks, playgrounds, bathing beaches, municipal bathhouses, piers, wharves, public buildings, highways, streets, pleasure drives, and boulevards. Said dock line shall in nowise affect or supersede the dock lines on said Lake Monona already existing and established pursuant to



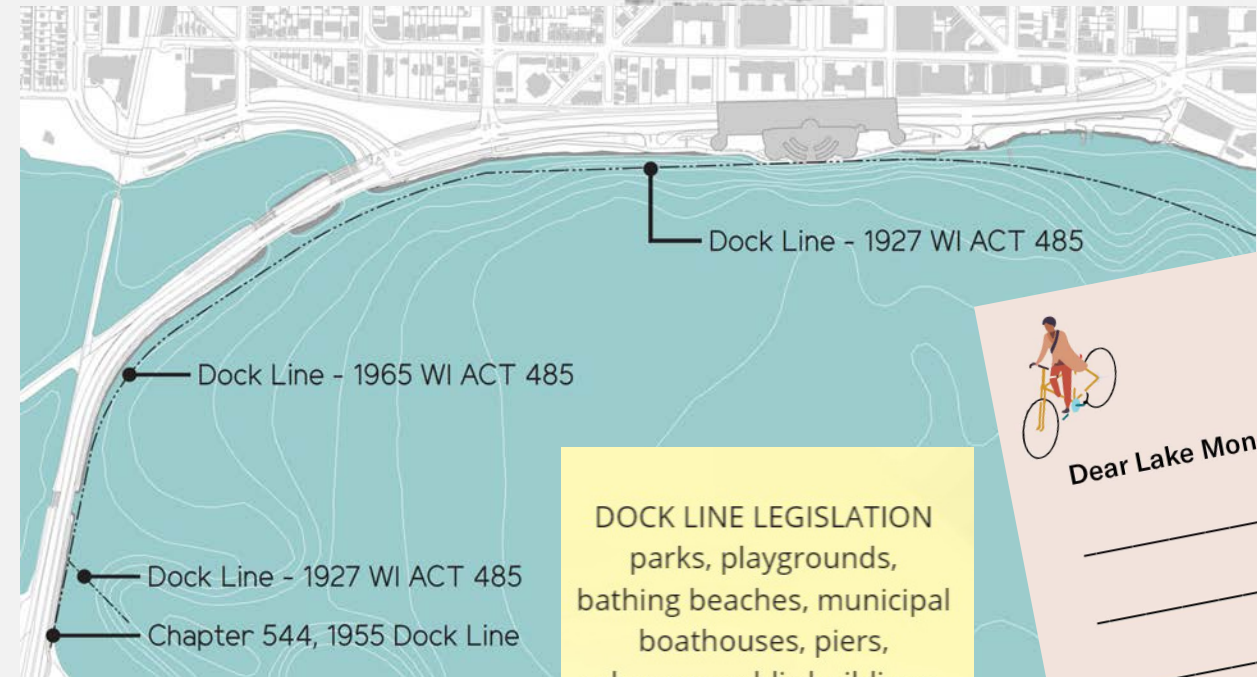
August 3, 2027
 realize a big vision set up 100 years ago

<https://docs.legis.wisconsin.gov/1927/related/acts/485.pdf>



Filling of Lake Monona's western shoreline along Olin Terrace, 1943. Filled area in later years became John Nolen Drive and Law Park.

PHOTO: EUGENE SANBORN, DNR CENTRAL OFFICE COLLECTION



DOCK LINE LEGISLATION
 parks, playgrounds, bathing beaches, municipal bathhouses, piers, wharves, public buildings, highways, streets, pleasure drives, boulevards

LET'S TRAVEL IN TIME!

Dear Lake Monona,

Fall, 2122

Imagine your vision for Lake Monona in 2122 - one hundred years in the future - what are you experiencing and how do you feel?

Signed,



SHORT

**INCREMENTAL CHANGE AND SHORT-TERM
PLANNING WILL NOT SOLVE LAKE MONONA'S
CHALLENGES**

TIME



LONG

**A 100-YEAR VISION IS NEEDED TO ADDRESS
CLIMATE CHANGE AND ITS ENVIRONMENTAL
AND CULTURAL IMPACTS**

PRINCIPLE #1
Our master plan will make
recommendations with a 100-year horizon

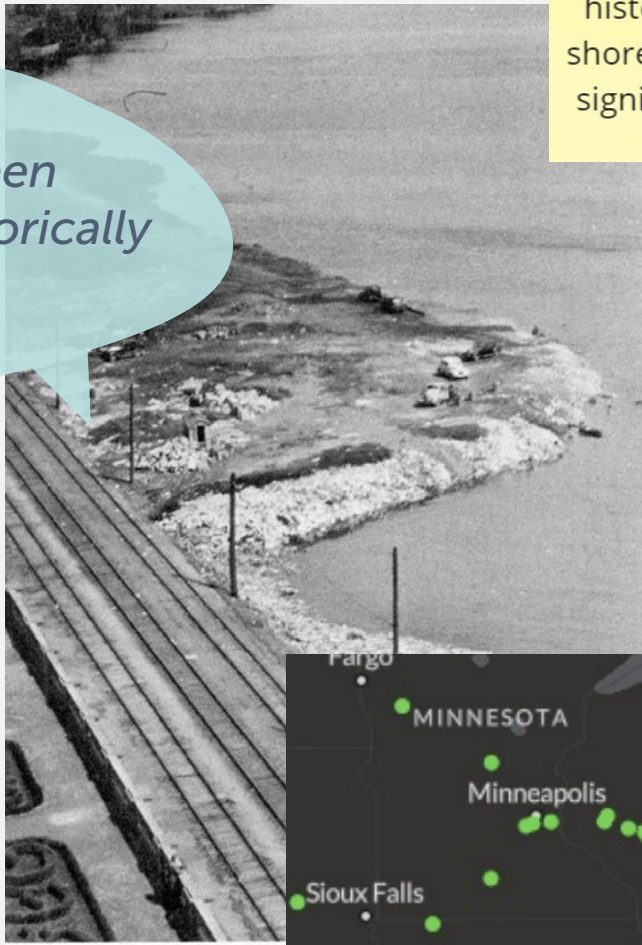


“WATER HAS MEMORY”

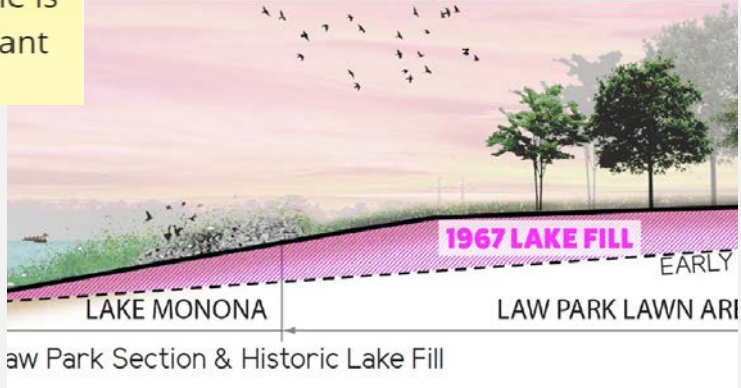


Past history has been physically and metaphorically flattened

Canoe culture has been part of the lakes since 12,000 years ago...



historical shoreline is significant



Algal blooms and beach closure very much tied to phosphorus levels. Main source of phosphorus is agricultural runoff from Starkweather creek watershed

The presence of mounds in the area indicates a landscape that allowed for exploration and education, its residents' basic needs having been readily met by their environment."

"To the modern Ho-Chunk Nation, they're simply centuries-removed kin who established the tribe's ancestral footprint in the Madison area: Teejop, or "Four Lakes," a region whose beauty lies in its waters, and whose waters spring from stories."

'water has memory'

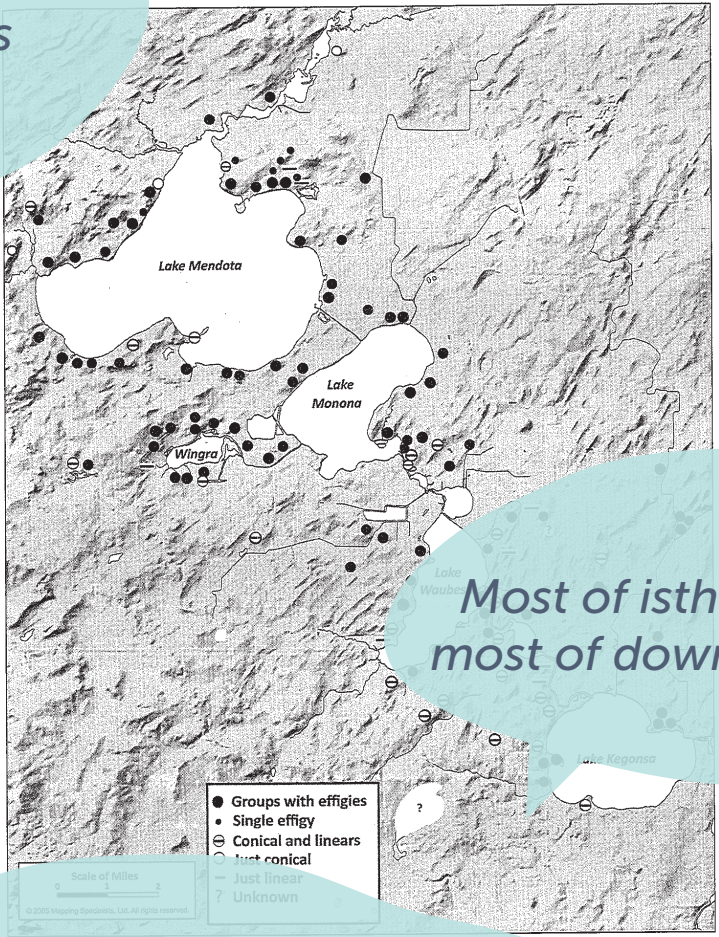
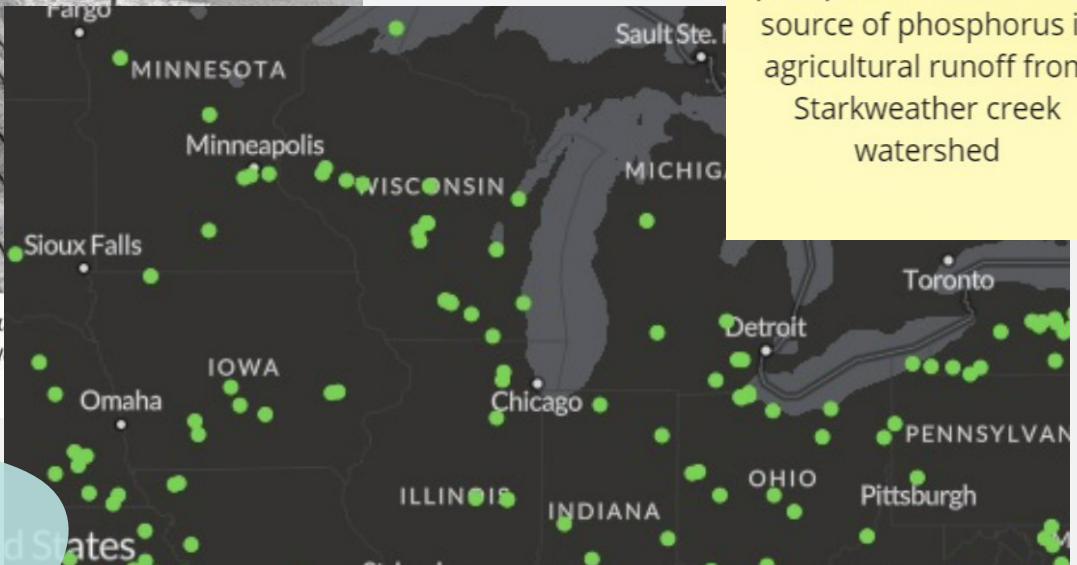


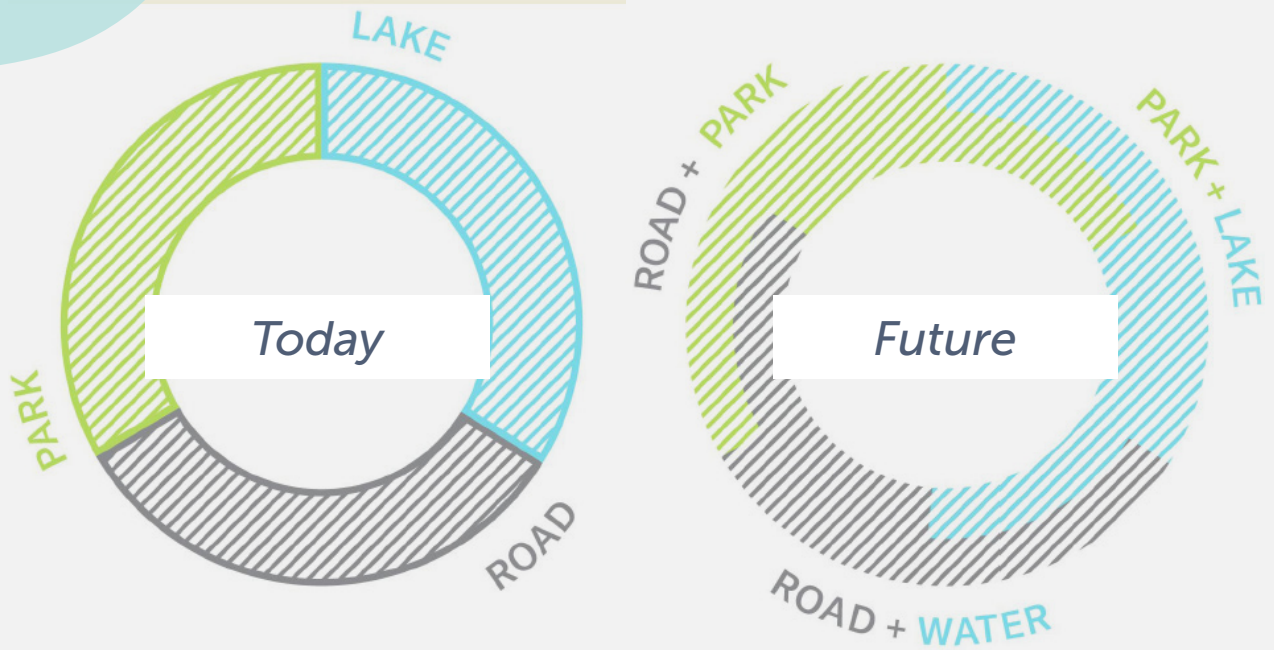
Figure 3.9. Map of Four Lakes mound sites.

Filling of Lake Monona's ... 1943. Filled area in later years ... Law Park.



Most of isthmus was marsh, most of downtown was marsh

Tell the whole story and not just parts...tell the history.



onwisconsin.uwalumni.com

Land of the Ho-Chunk | On Wisconsin

A canoe recovered from Lake Mendota tells a story that long predates UW-Madison.



“FILL”

FILLING THE LAKE TO CREATE LAND FOR HUMAN USE HAS COMPROMISED CULTURAL LIFEWAYS AND DAMAGED THE LAKE’S ECOSYSTEM HEALTH

HISTORY



RESTORATION

RESTORING BLUE/GREEN FUNCTION CAN MODEL RESILIENCE AND RESTORE LOST CULTURAL CONNECTIONS

PRINCIPLE #2

Our master plan will embrace the healing power of ecological restoration

An aerial photograph of a complex road interchange. The roads are paved and feature various lane markings, including a green-painted bike lane. Several cars are visible on the roads. To the left, a body of water is visible, bordered by trees with autumn foliage. To the right, there is a large, fenced-in tennis court complex. The overall scene is captured from a high angle, showing the intricate layout of the roads and surrounding infrastructure.

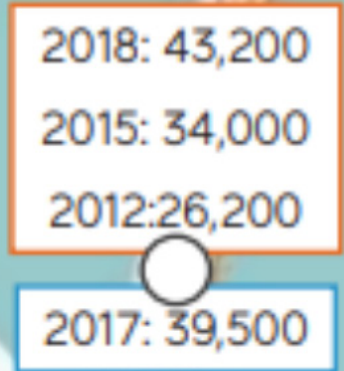
“WE CAN’T GET TO THE WATER”

Provide barriers between multi use paths and cars

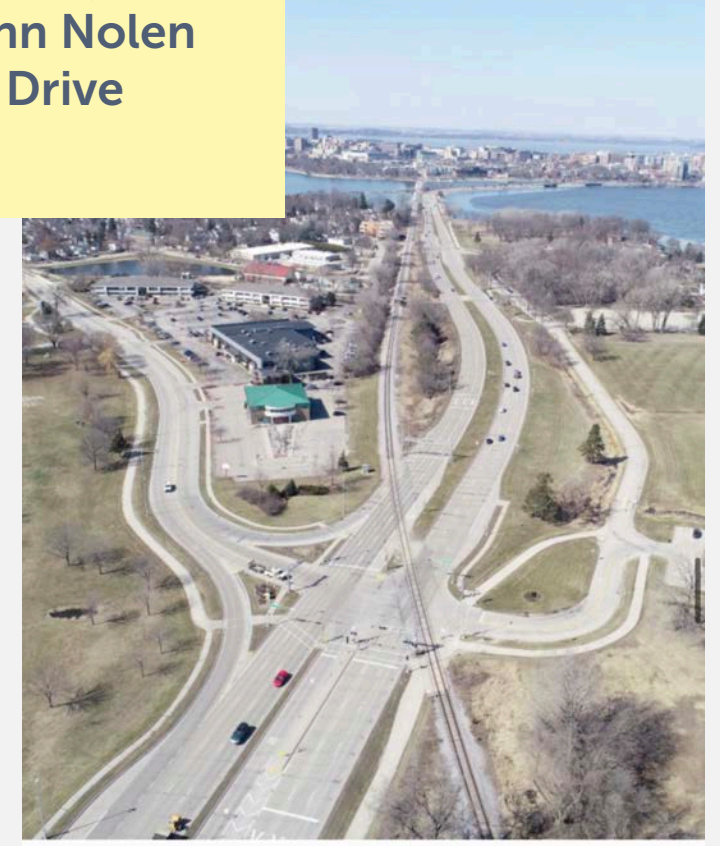
4,000+ users every day on Capital City Trail



John Nolen AADTs increasing or steady



40,000 cars per day on John Nolen Drive



narrow shared path is a major complaint - what can we do to separate pedestrians and cyclists?

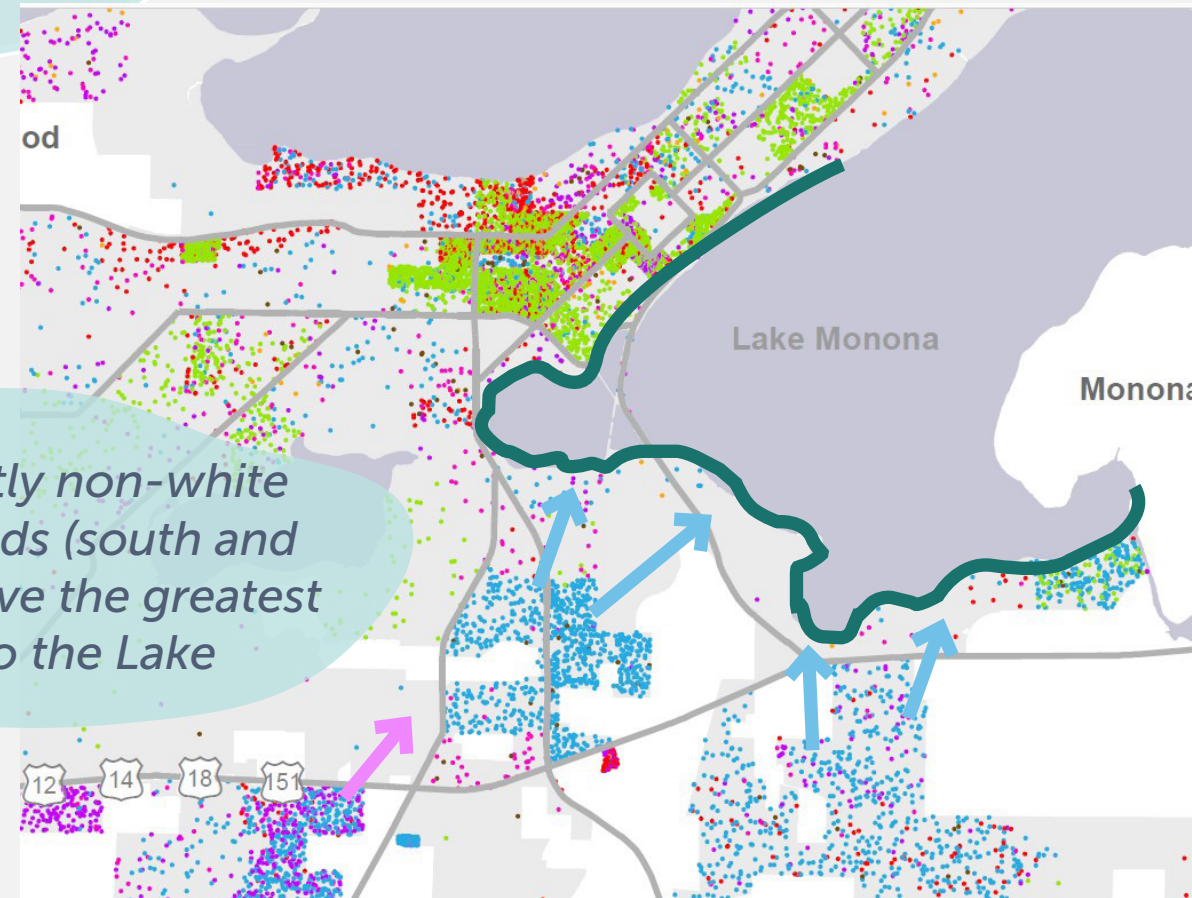
John Nolen is fast and not safe - Slow it down!



[We] don't have space FOR everything...can we have connected space TO everything?

Existing causeway sections feel very narrow when trails are busy - cantilever boardwalk?

Predominantly non-white neighborhoods (south and southwest) have the greatest barriers to the Lake





FAST

55-65% OF OUR SITE IS PAVED FOR FAST MOVING TRAFFIC - USERS THAT ARE ON THE SITE THE LEAST AMOUNT OF TIME

MOBILITY

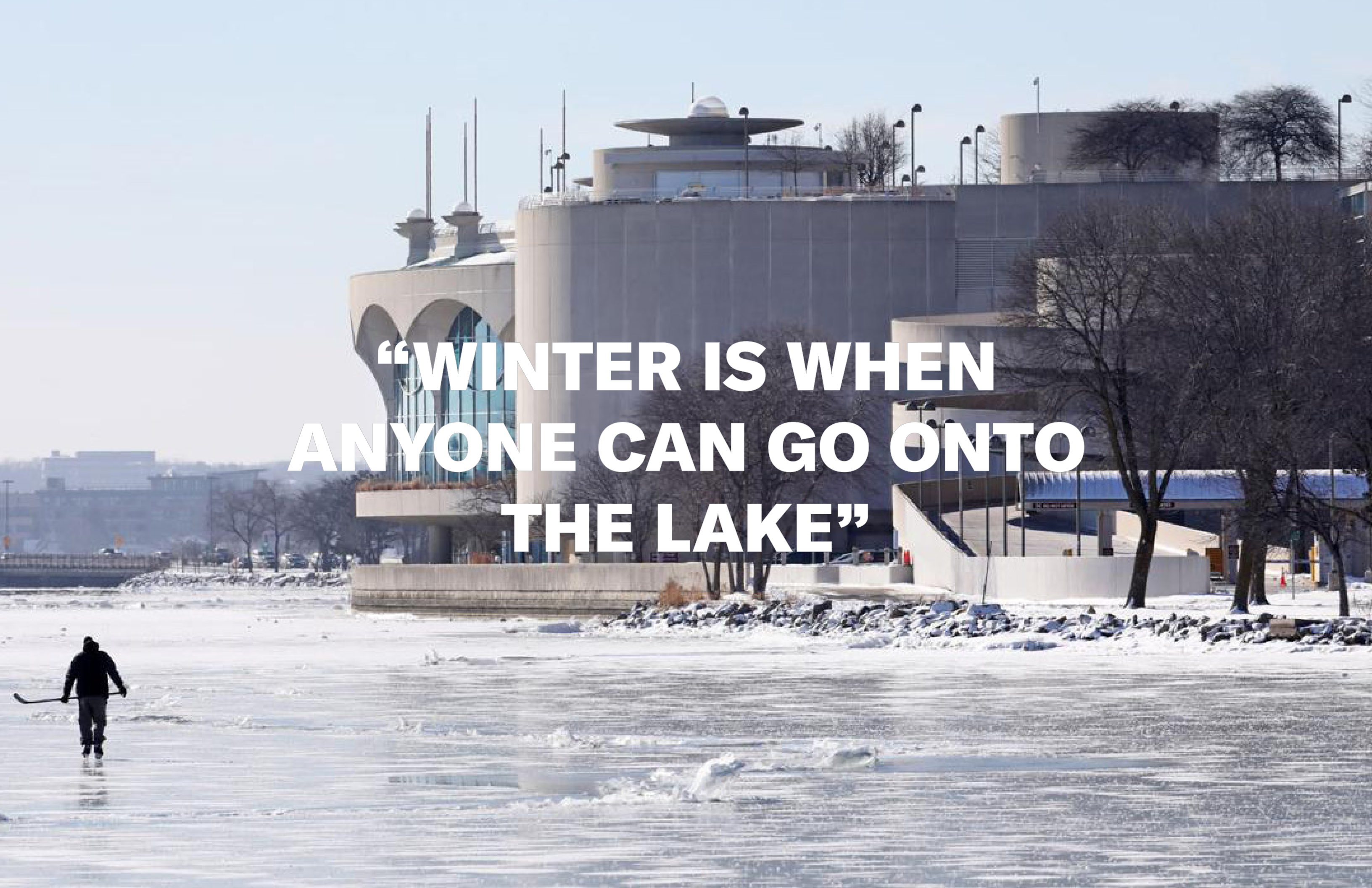


SLOW

SLOW USES - WATER CRAFT, STROLLERS, WHEELCHAIRS, WALKERS, FISHERS - TAKE MUCH LONGER TO TRAVERSE THE SITE, AND HAVE THE LEAST DEDICATED SPACE

PRINCIPLE #3

Our master plan will integrate safe and equitable paths for all users

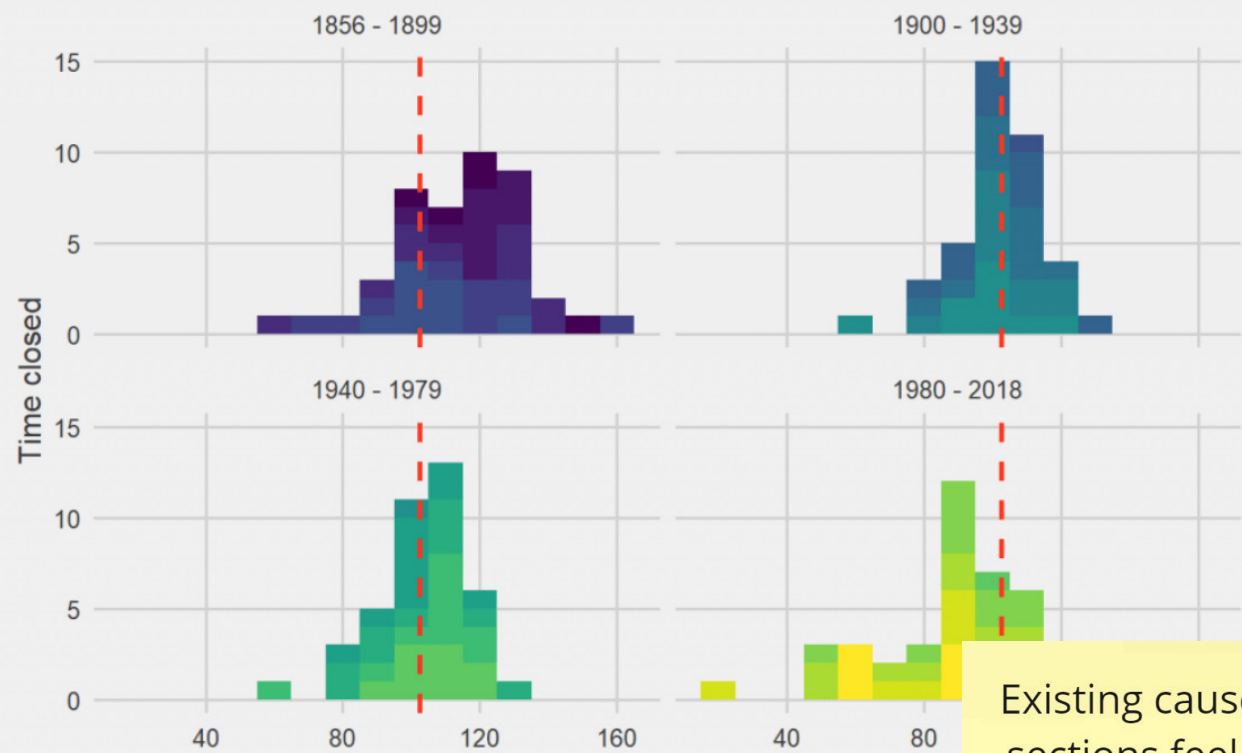
A person in a dark jacket is ice skating on a frozen lake in the foreground. In the background, a large, modern, multi-story building with a curved facade and a satellite dish on top stands on a rocky shore. The sky is clear and blue, and the overall scene is a winter landscape.

**“WINTER IS WHEN
ANYONE CAN GO ONTO
THE LAKE”**

Save

Histogram of frozen time, for 4 periods

Histogram + historic average frozen time



Your histograms show how the duration of ice cover on Lake Mendota has changed over the years. Over the years, shorter periods were common in the 19th century, they have grown rarer over the years. As shown in the histograms, shorter periods are frozen for a shorter period than average. The overall average is shown by the dotted red line.

Need more places to sit and relax

Existing causeway sections feel very narrow when trails are busy - cantilever boardwalk?



Different size spaces with different levels of energy

My friend fell in the ice last year



www.visitmadison.com

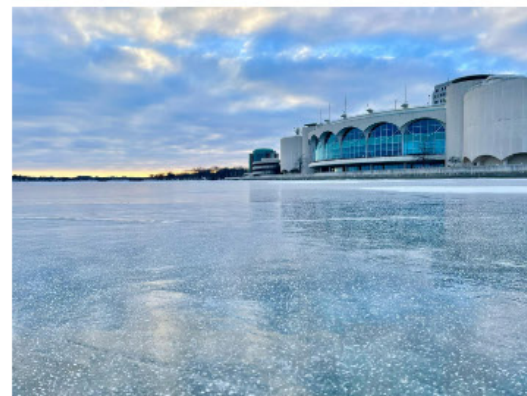
11 Things to Do on Madison's Frozen Lakes Right Now

A winter wonderland? Nah, a whole new (frozen) world.

1) Ice fishing



2) Views



3) Ice boating



4) Photography



5) Walks





SUMMER

MOST PARKS ARE DESIGNED FOR THE PERFECT 70 DEGREE SUMMER DAY ...

USE



YEAR-ROUND

MADISON AVERAGES BELOW 60 DEGREES OR LESS 8 MONTHS OF THE YEAR

PRINCIPLE #4
Our master plan will deliver desired uses and embrace Madison's seasonal change

SHORT

“FILL”

FAST

SUMMER

TIME

HISTORY

MOBILITY

USE

LONG

RESTORATION

SLOW

YEAR-ROUND

HELLO!





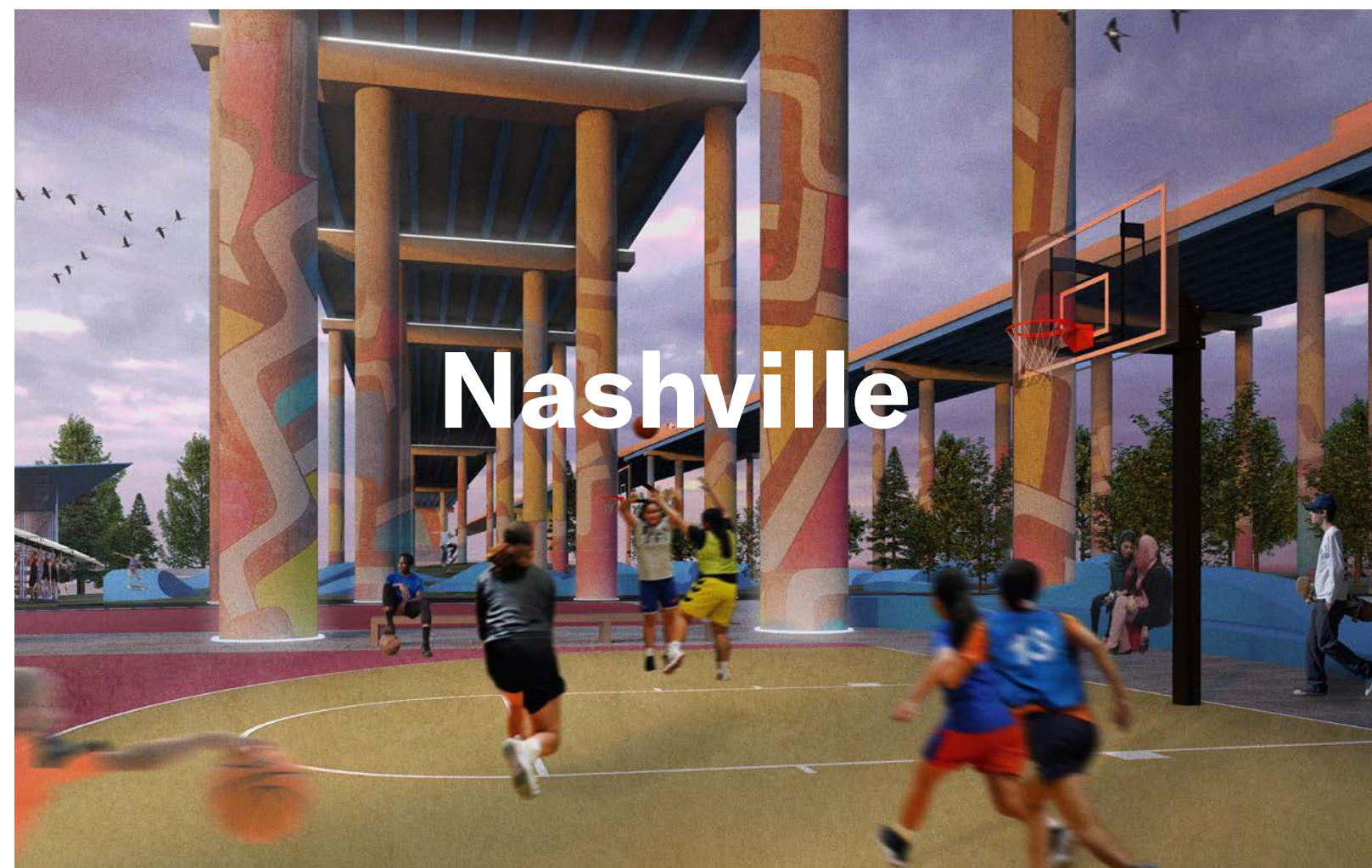
Sarasota



Chicago



Omaha



Nashville

**Agency
Landscape + Planning**
Prime Consultant, Landscape Architecture and Planning

Brie Hensold
Planning Lead

Gina Ford
Landscape Design Lead

Traci Lesneski
Architecture Lead

Annie Streetman
Planner + Project Manager

MSR Design
Architecture

Laura Brusson
Landscape Designer

Chris Wingate
Project Designer

Cory Horton
Senior Project Manager

Patrick Lynch
Project Architect

raSmith
Environmental Engineering, Ecology

Tom Mortensen
Site Planner

Josh Houston
Vice President

Tina Myers
Ecologist

MCC
Cost Estimation

Tracy Lehman
Senior Traffic Engineer

Tom Middleton
President

Brian Smalkoski
Senior Transportation
Planner

Lydia Statz
Senior Transportation
Planner

Kimley-Horn
Civil Engineering, Transportation

**City of Madison
Parks Division and
Friends of Nolen
Waterfront**

Madison Community

Lake Guides

||||||| Madison Life Experience
(has lived and/or studied In Madison)

..... Madison Professional Experience
(has worked on projects in Madison)



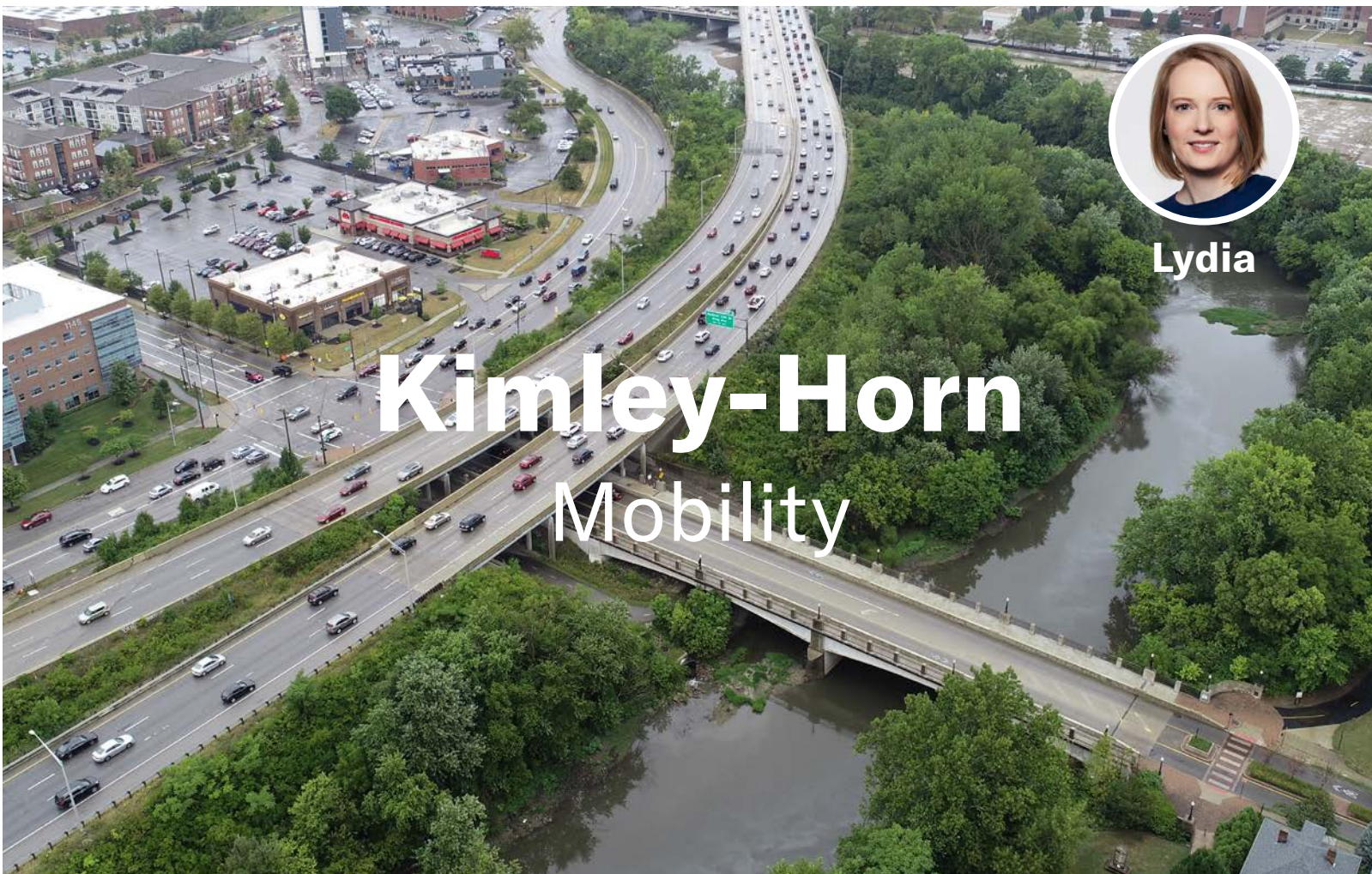
Chris

MSR Design Civic Infrastructure



Cory

raSmith Environmental + Civil



Lydia

Kimley-Horn Mobility



Tom

MCC Cost Estimating

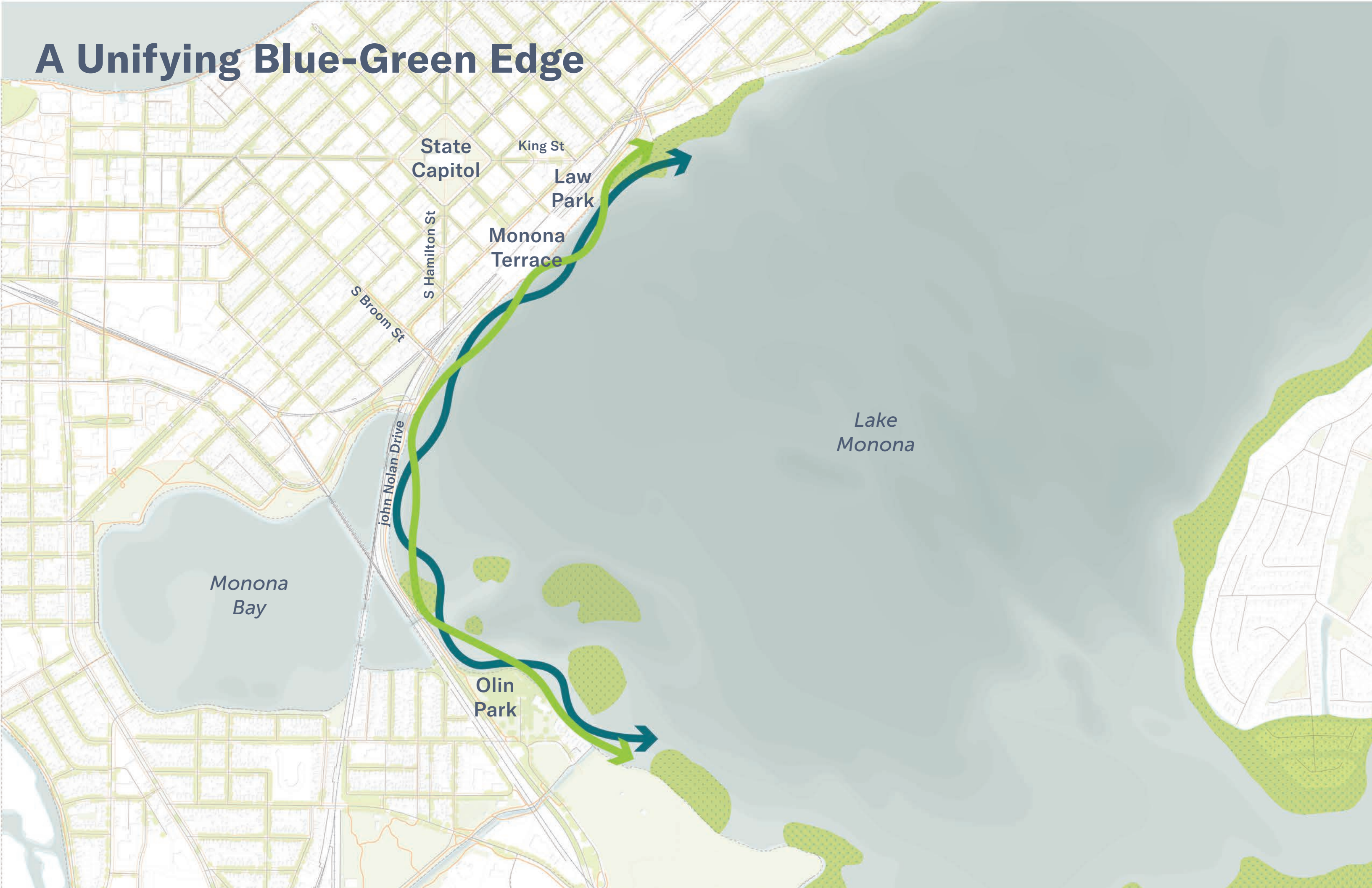


MASTER PLAN FRAMEWORK

Principle #1:

**Our master plan will make recommendations
with a 100-year horizon**

A Unifying Blue-Green Edge



State
Capitol

King St

Law
Park

Monona
Terrace

S Broom St

S Hamilton St

John Nolan Drive

Monona
Bay

Olin
Park

Lake
Monona

Three Vital Districts



State Capitol

King St

S Hamilton St
S Broom St

City
Urban Hub

Causeway
Nature-Engaged Journey

N Shore

Monona Bay

Park
Productive Gateway

Wingra Creek



Events at the Terrace



Public Art



Recreation + Spectacle



Fishing



Boating*



Nature Viewing*



Productive Growing*



Family/Friends Gathering*



Relaxing*

*Favorite outdoor activities as outlined in Preliminary Report

Making Safer Paths for All

Vehicle and other fast traffic

Bike and other medium traffic

Boat and other water traffic

Foot and other slow traffic

Access points

State Capitol

King St

S Hamilton St

S Broom St

Lake Monona

Monona Bay



Today's Focus



State
Capitol

King St

City

Lake
Monona

Causeway

Nature-Engaged
Journey

Monona
Bay

Park

Today's Focus



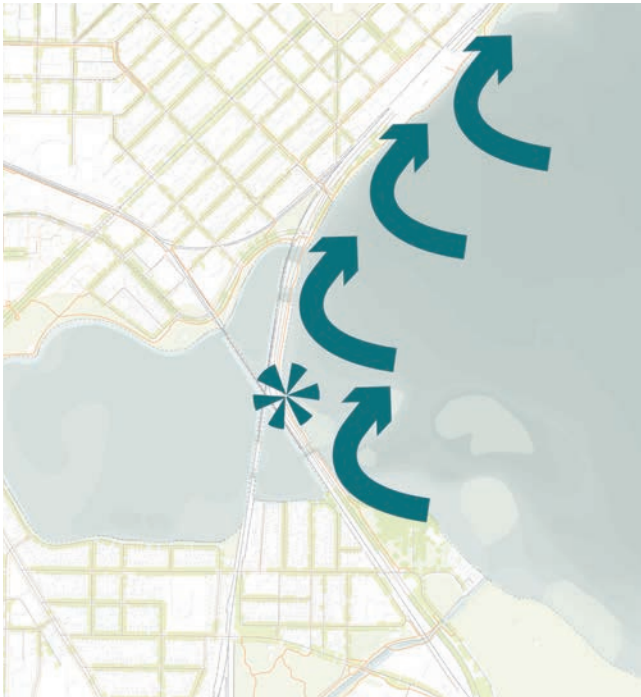
Why here?



Gap in Submergent Vegetation



Dock Line **Opportunity**



Advantageous Currents



Causeway **Reconstruction**

REVIVING LAKE MONONA'S MARSH

Principle #2:

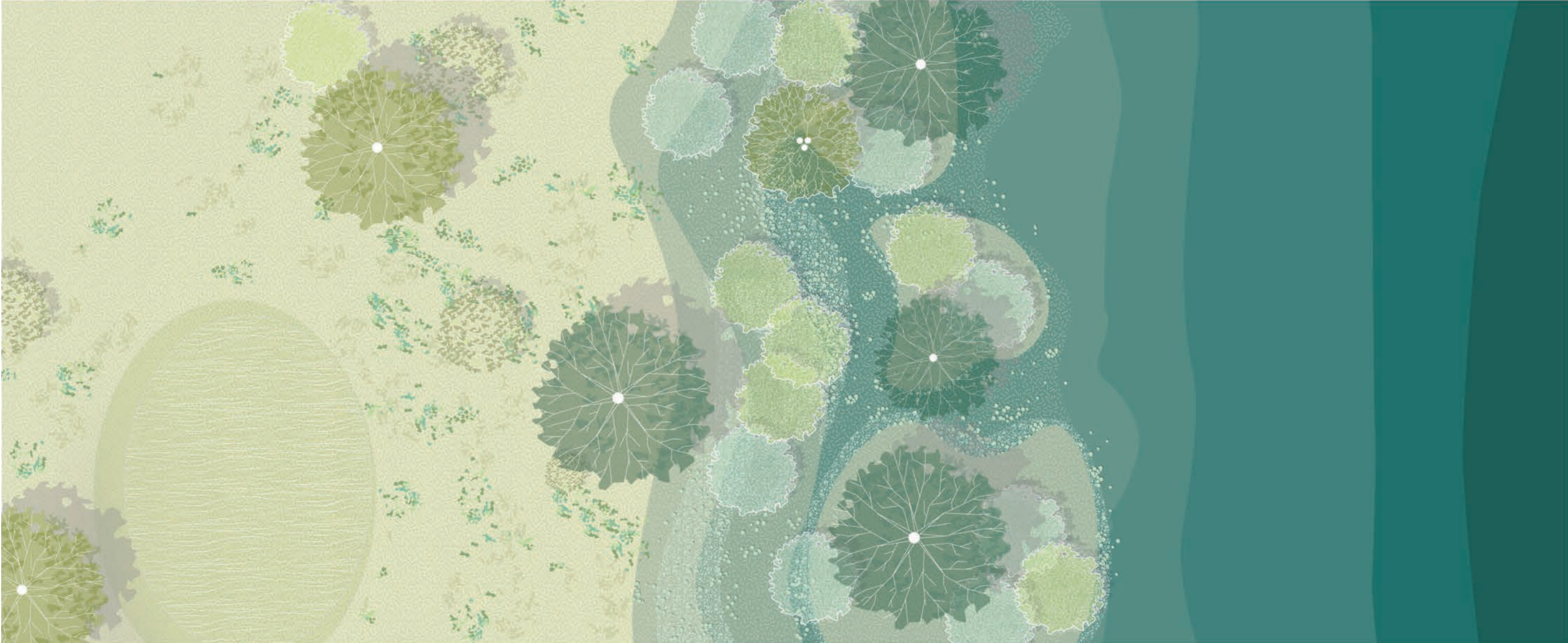
**Our master plan will embrace the
healing power of ecological restoration**



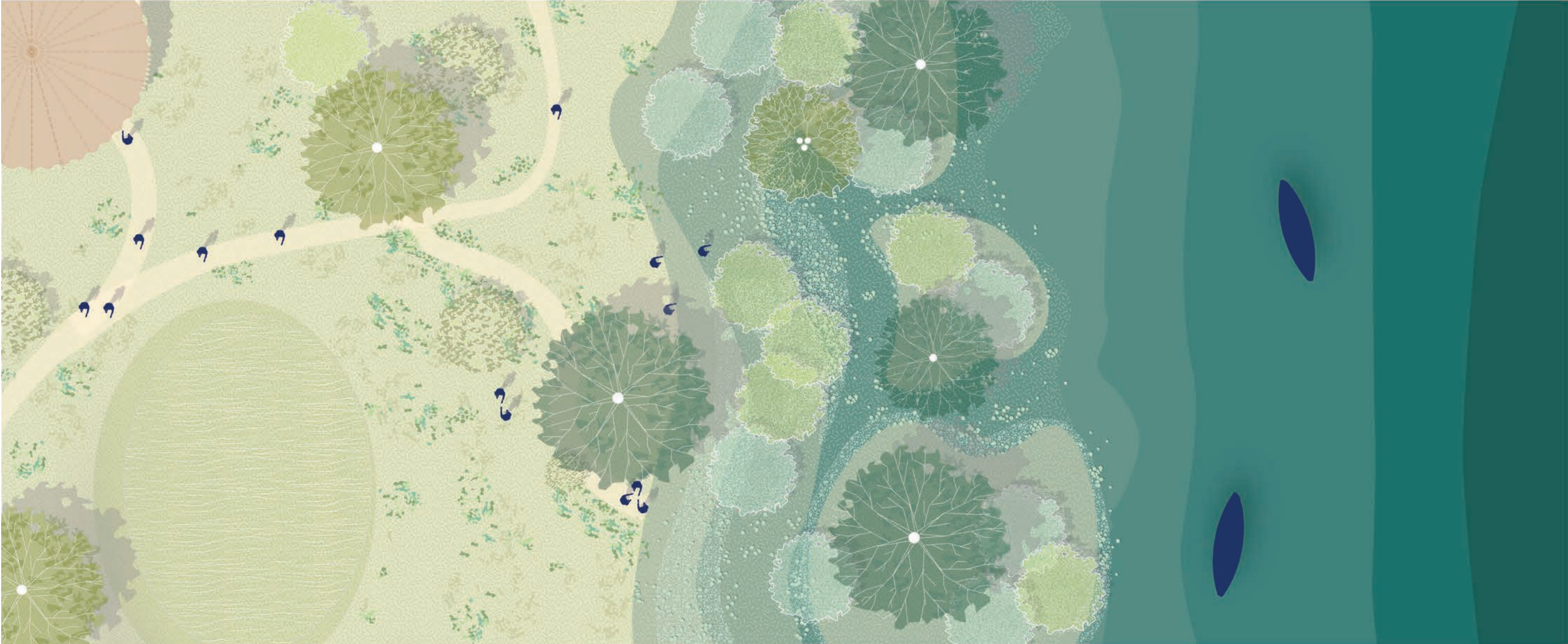
PAST CONDITION



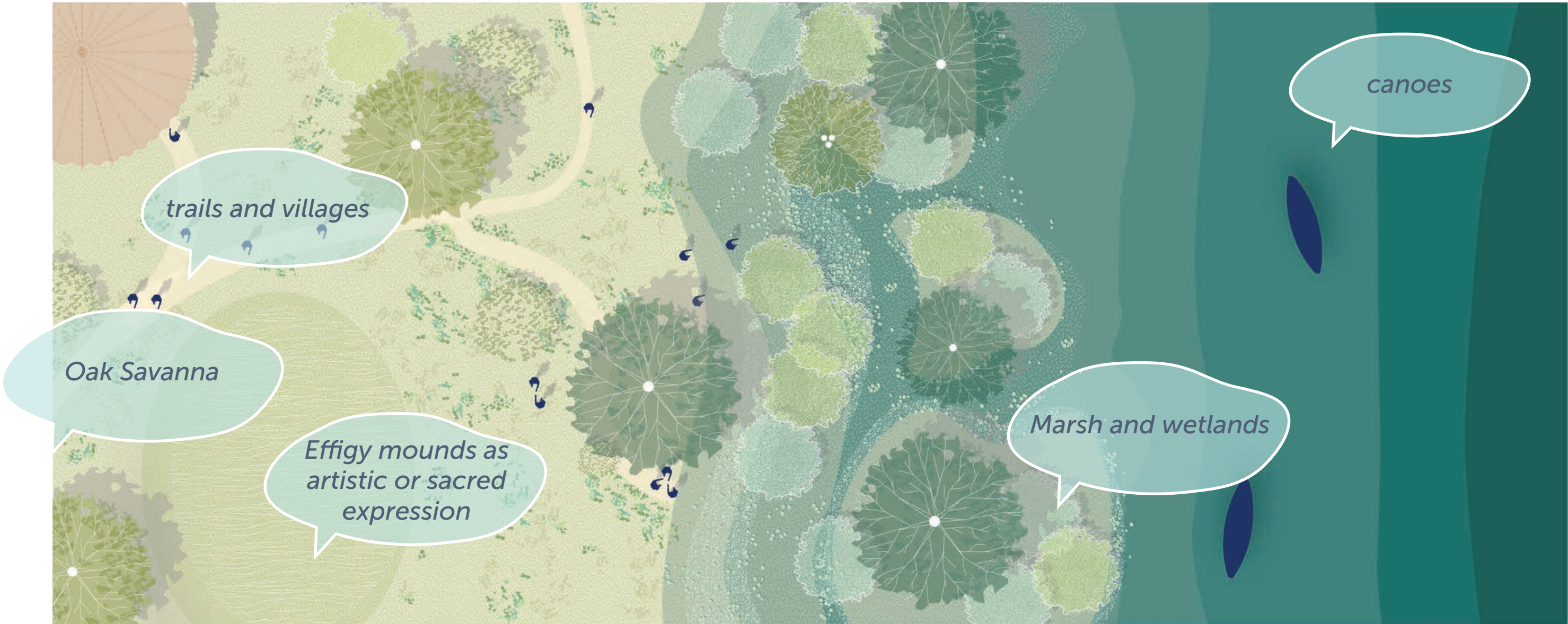
Past Condition



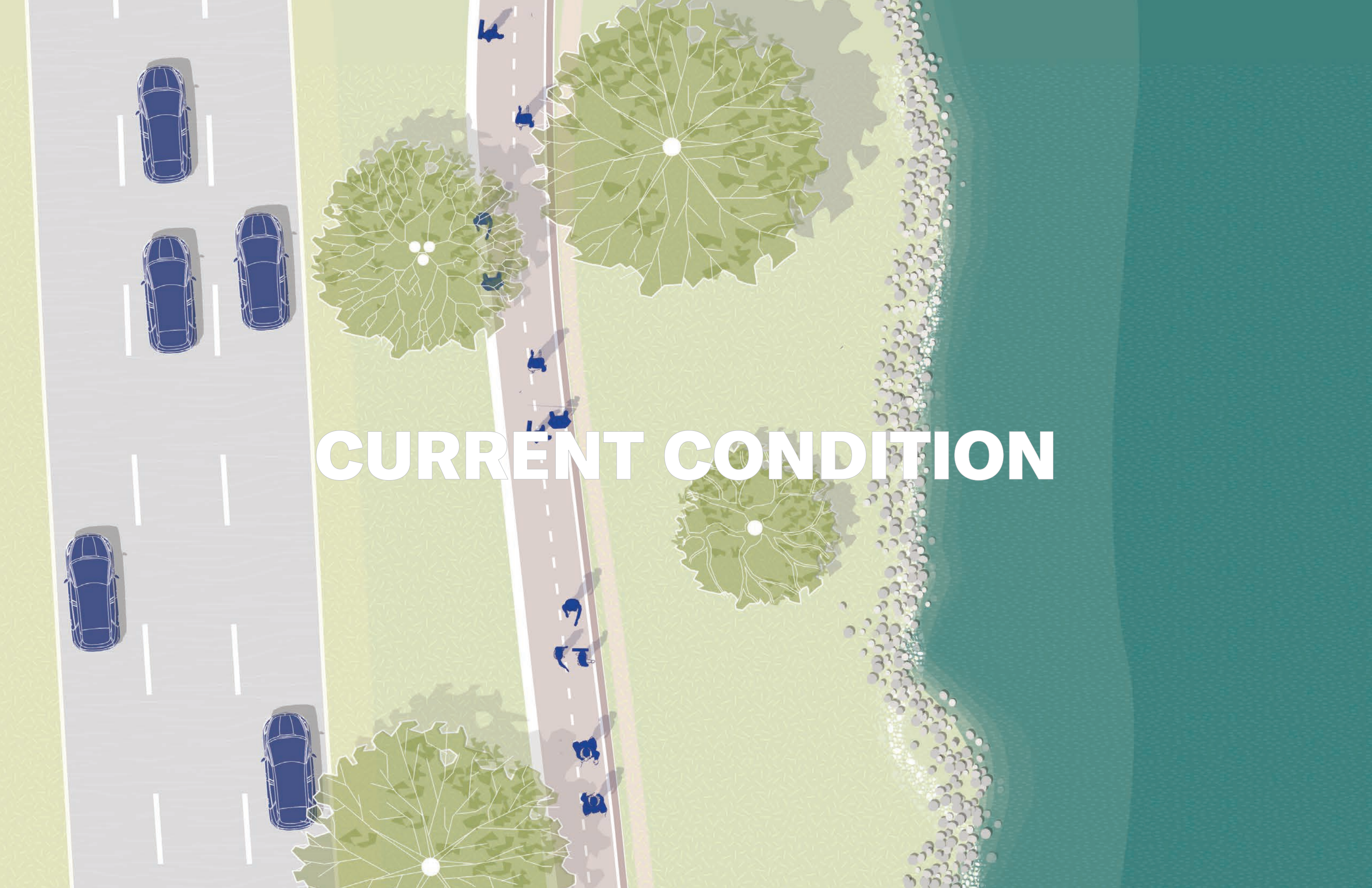
Past Use



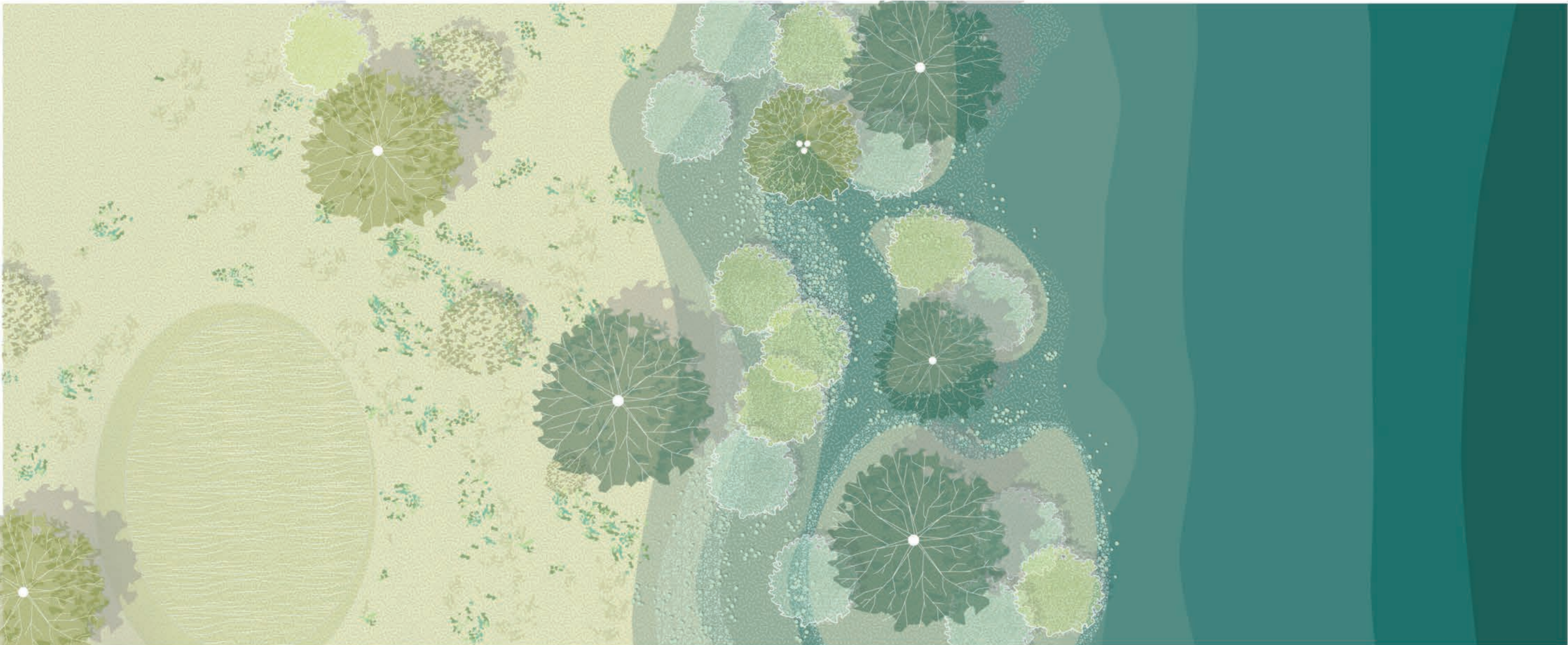
Past Use



CURRENT CONDITION



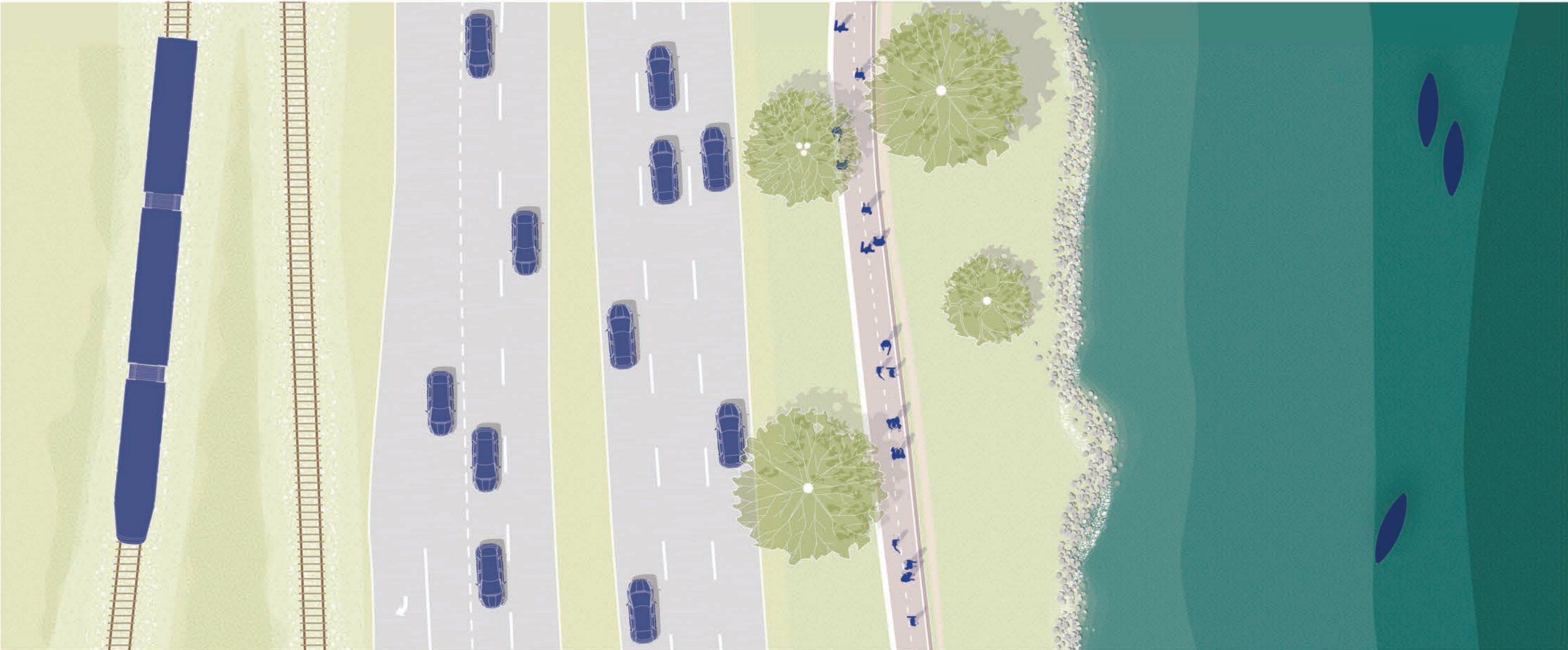
Past Condition



Current Condition



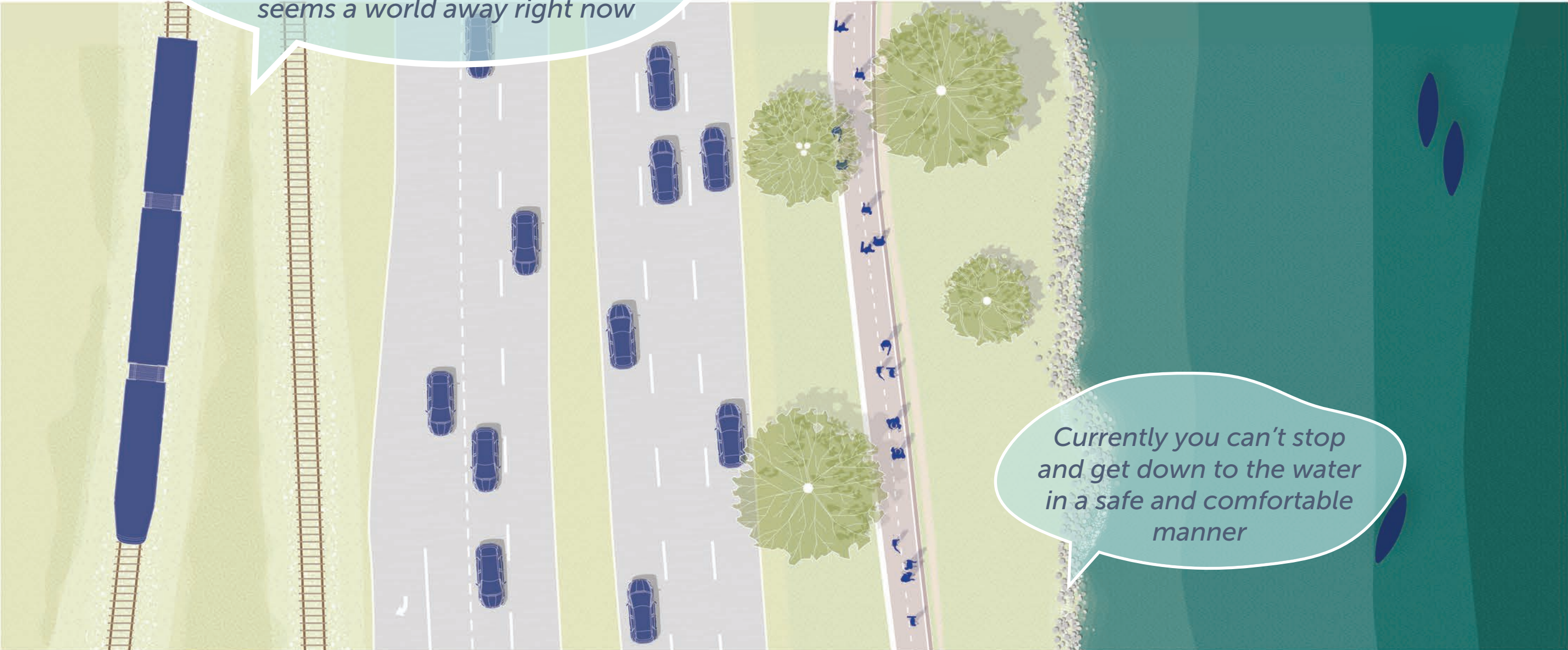
Current Use



Current Use

The first goal should be to connect [Lake Monona Waterfront] to... downtown and the southside. Even though it is feet from each location it seems a world away right now

Currently you can't stop and get down to the water in a safe and comfortable manner



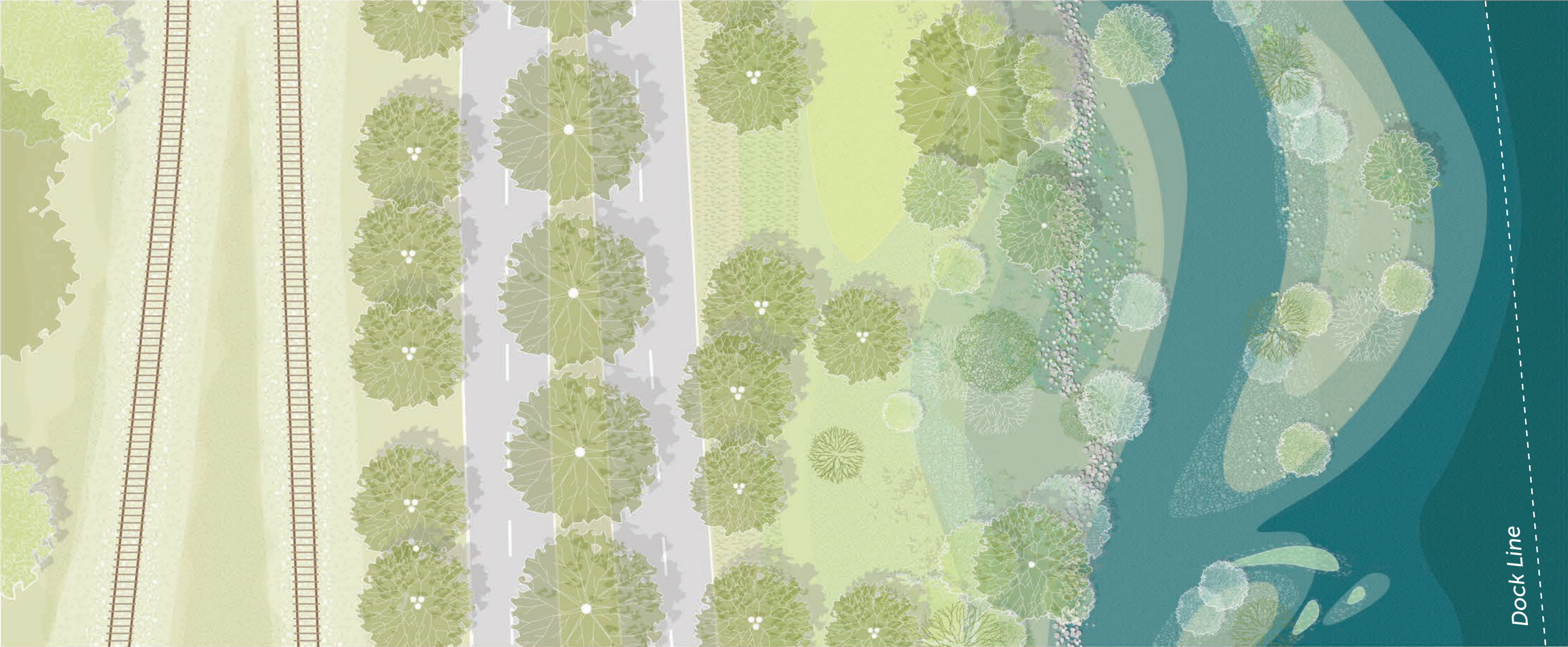


**FUTURE
(2122)**

Current Condition



Future Condition



Future Condition



Treat runoff before it reaches the Lake

Retain existing large trees

I want to feel safe to swim again

We don't want signage to tell what once was

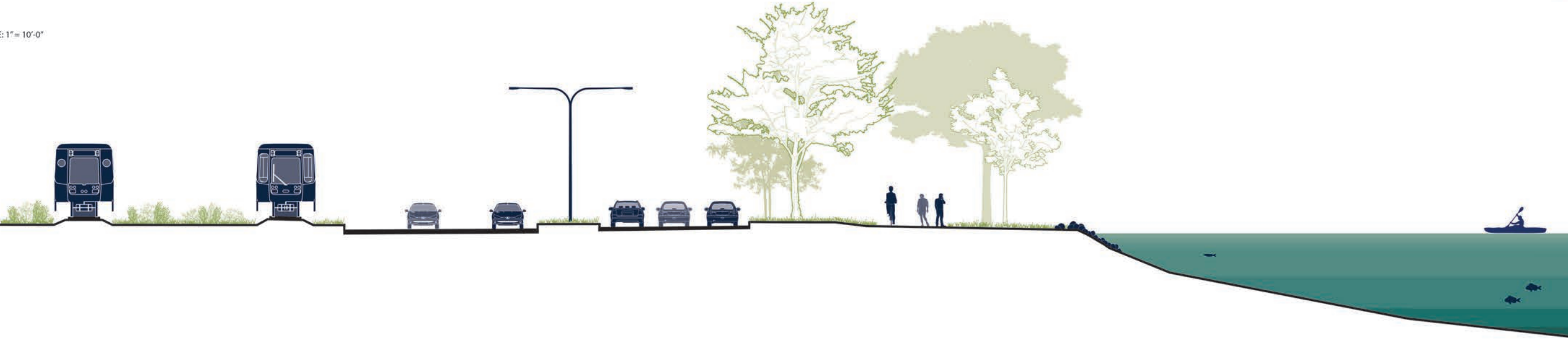
A return to a healthy lake

Dock Line

Water's Edge

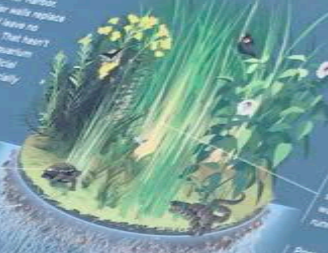


SCALE: 1" = 10'-0"





Bringing Wetlands Back



Water-cleaning wetlands since their installation, pair walls replace them to replace them. That hasn't stopped the National Aquarium wetlands—this one on specially designed islands.

Discover the many benefits of floating wetlands:

- Enhance natural cycles and improve water quality and help attract birds and fish.
- Fish-friendly structure with an elevated surface and full substrate, both harbor more.
- Submerged plant roots absorb excess nutrients that can lead to an overabundance of algae, copper, mercury, chlorine, and ammonia in the water.

Take a photo of any plants growing on wetland. Share it using #floatingwetlands. Your photo will help us learn more about how floating wetlands support wildlife.

Native wetland plants like smooth cordgrass, rose mallow, and aquatic goldenrods in harbor water over-fertilized by nutrients running off the land.

Porous, recycled plastic provides a sturdy, non-toxic surface for plants and beneficial microbes that remove harbor nutrients and sediments.

Harbor fish like white perch forage for smaller fish hiding among dense plant roots.

View a video of life beneath the surface by visiting aquarium.org/wetlands.

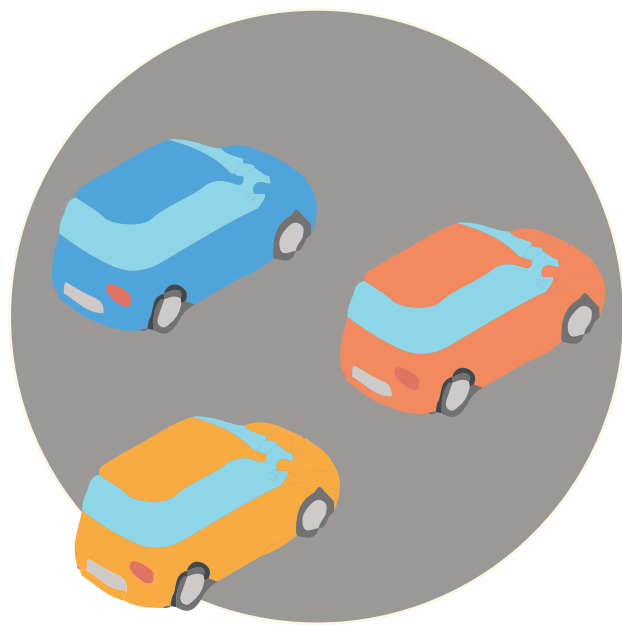
NATIONAL AQUARIUM

An aerial illustration of a park or urban space. The scene is dominated by various shades of green. There are several winding paths, some of which are wider and appear to be paved or have a different texture. People are shown walking along these paths. There are many trees of different shapes and sizes, some with detailed leaf patterns. In the upper left, there are two cars parked on a road. The overall style is clean and modern, with a focus on green infrastructure and public space.

EQUITABLE ACCESS

Principle #3:
**Our master plan will integrate safe
and equitable paths for all users**

Moving at All Speeds



Fastest



Fast



Slow



Slowest

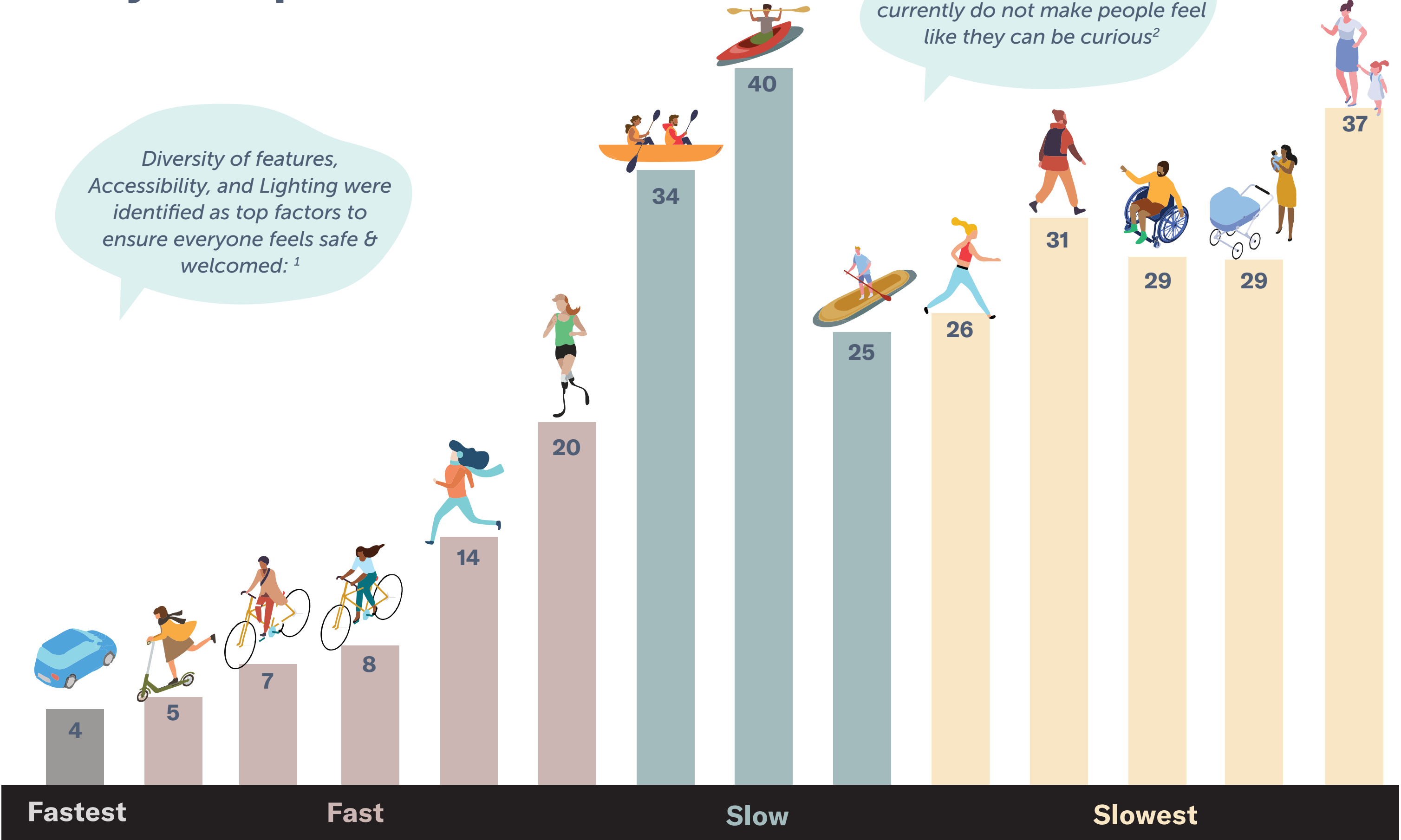


A Variety of Experiences

of Minutes to Cross the Site

Diversity of features, Accessibility, and Lighting were identified as top factors to ensure everyone feels safe & welcomed: ¹

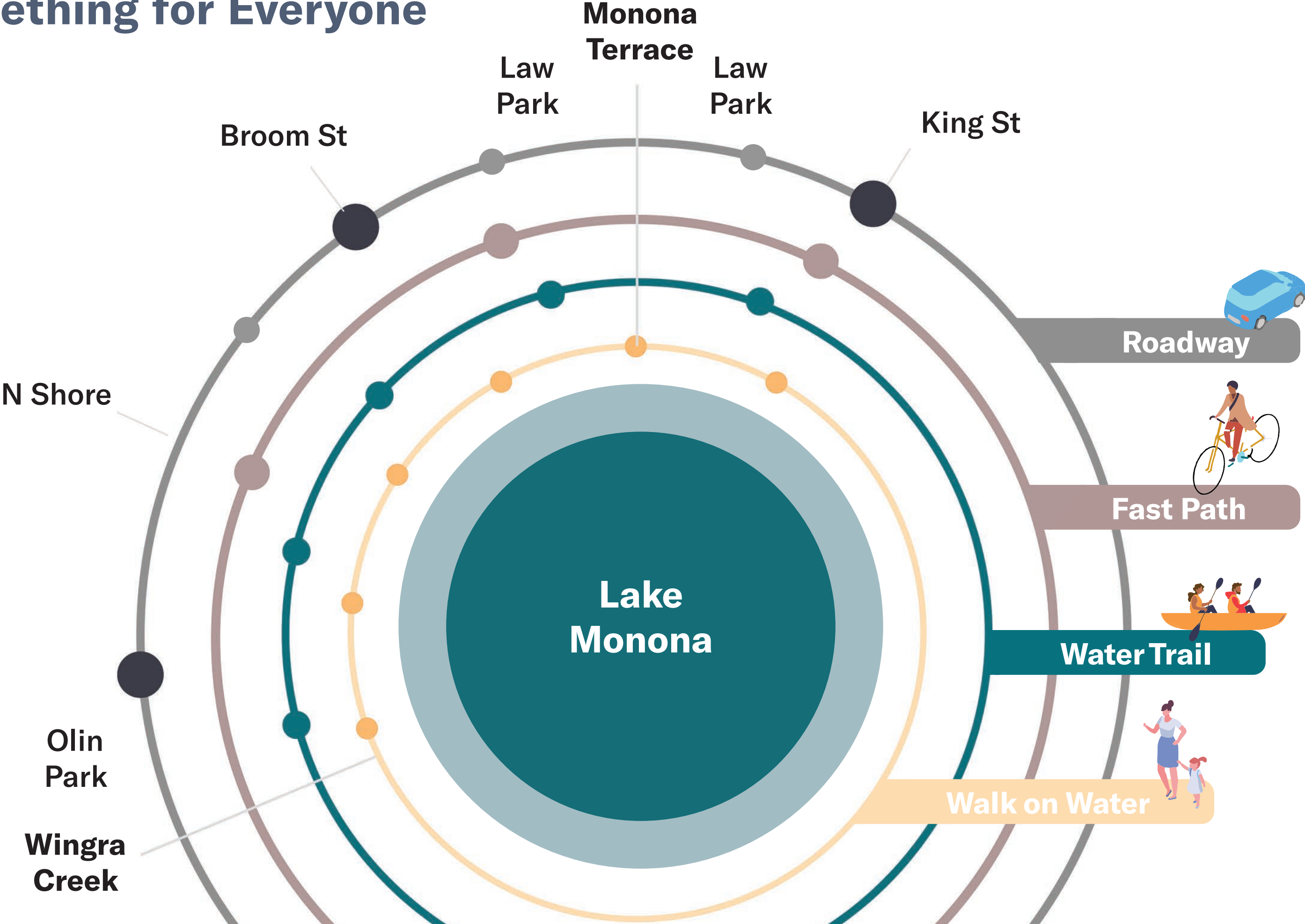
The way places are designed currently do not make people feel like they can be curious²



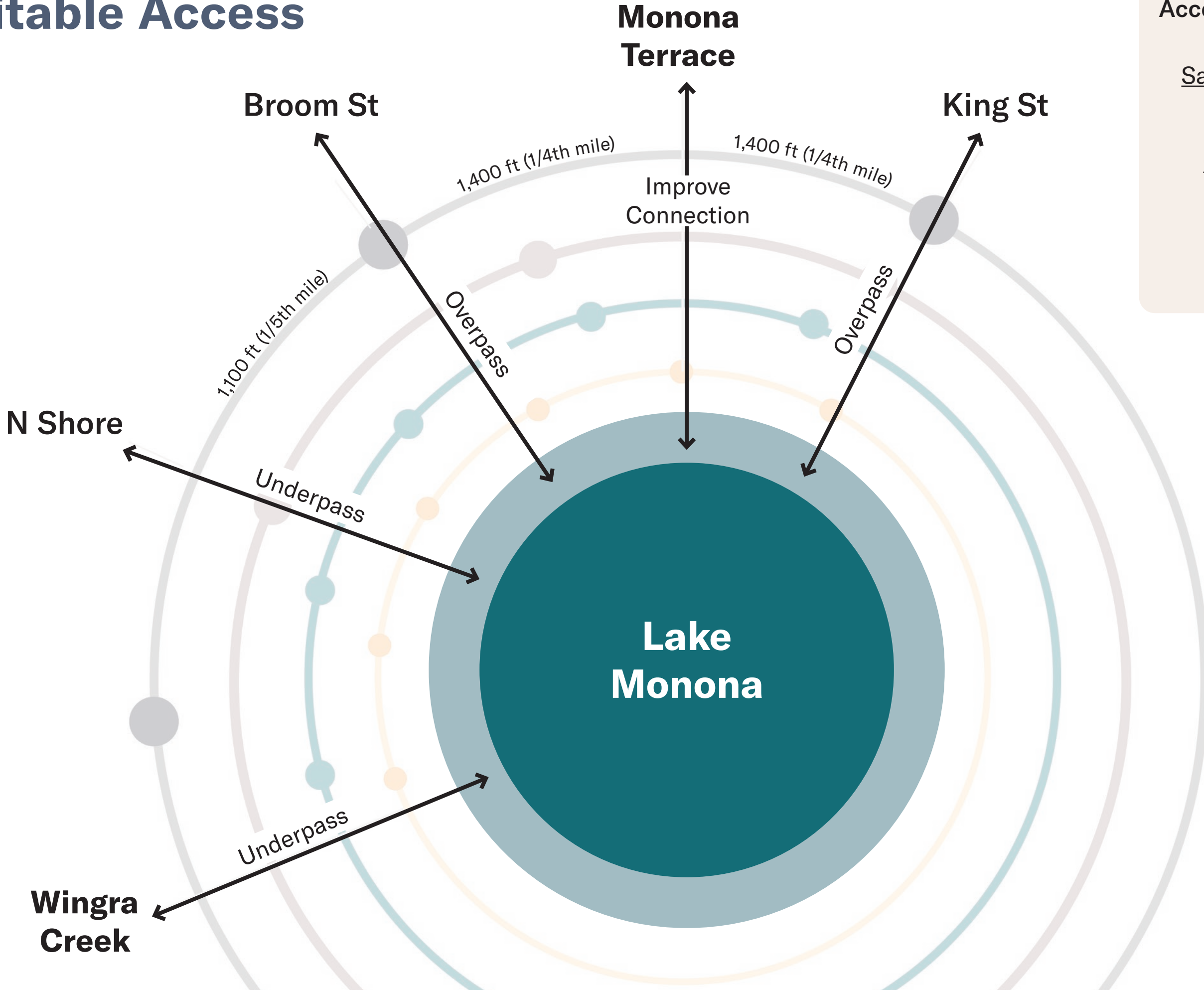
¹Preliminary Report Survey Results

²10/26 Preliminary Report Engagement Presentation

Something for Everyone



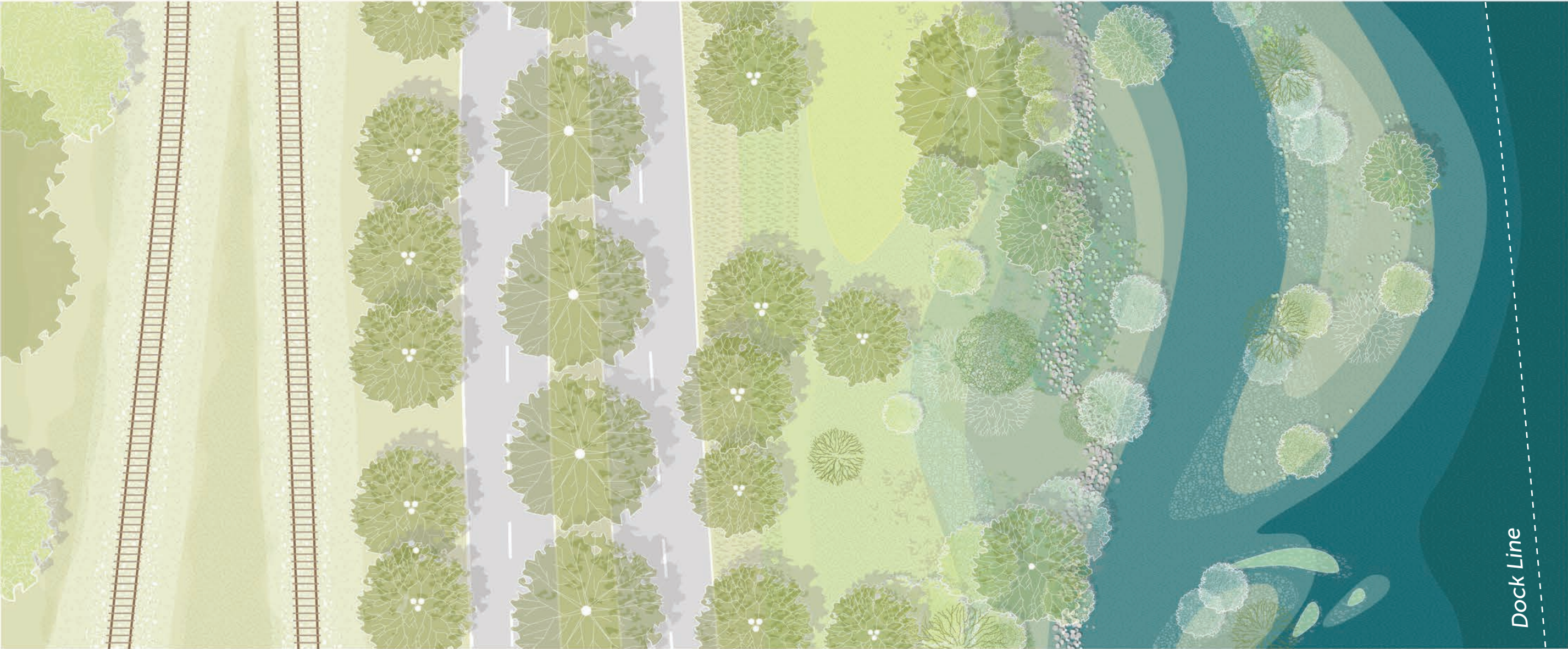
Equitable Access



Accessibility Benchmarks

- San Antonio Riverwalk
1/6 mile (800 ft)
- Chicago Riverwalk
1/5 mile (1,100 ft)
- Boston Esplanade
1/3 mile (1,500 ft)

Restored Edge



Layers of Mobility



Fastest

Fast
Fast Path

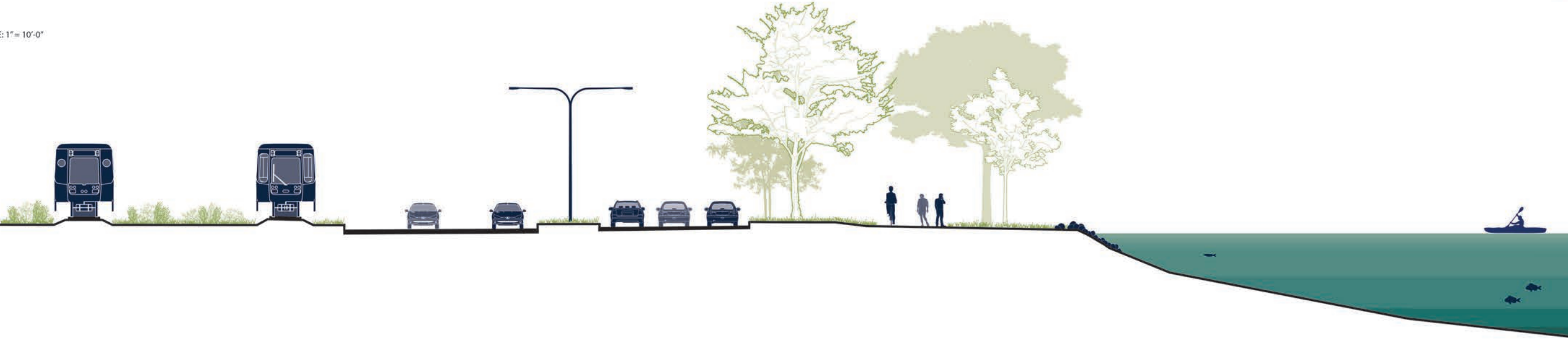
Slow
Water Trail

Slowest
Walk on Water

Water's Edge



SCALE: 1" = 10'-0"





An illustration of a snowy mountain slope with various winter sports activities. At the top right, a person is cross-country skiing. In the middle right, a person is ice skating. In the middle left, a person is sitting on a sled while another person stands behind them. At the bottom left, two people are walking. The background features stylized snow-covered hills, evergreen trees, and white snowflakes falling. The entire scene is rendered in a teal and white color palette.

YEAR-ROUND USE

Principle #4:

Our master plan will deliver desired uses and embrace Madison's seasonal change.

Biking in Spring



Stormwater catchment

Separated traffic

Bike Repair

Fast Path



Local food trucks

Markets

Cooling stations

Cooling down in Summer

Fast Path

Pausing in Fall



Commuting

Birdwatching

Marsh Overlook

Fast Path

Commuting in Winter



Crosscountry skiing

Snow storage

Building snowmen

Fast Path

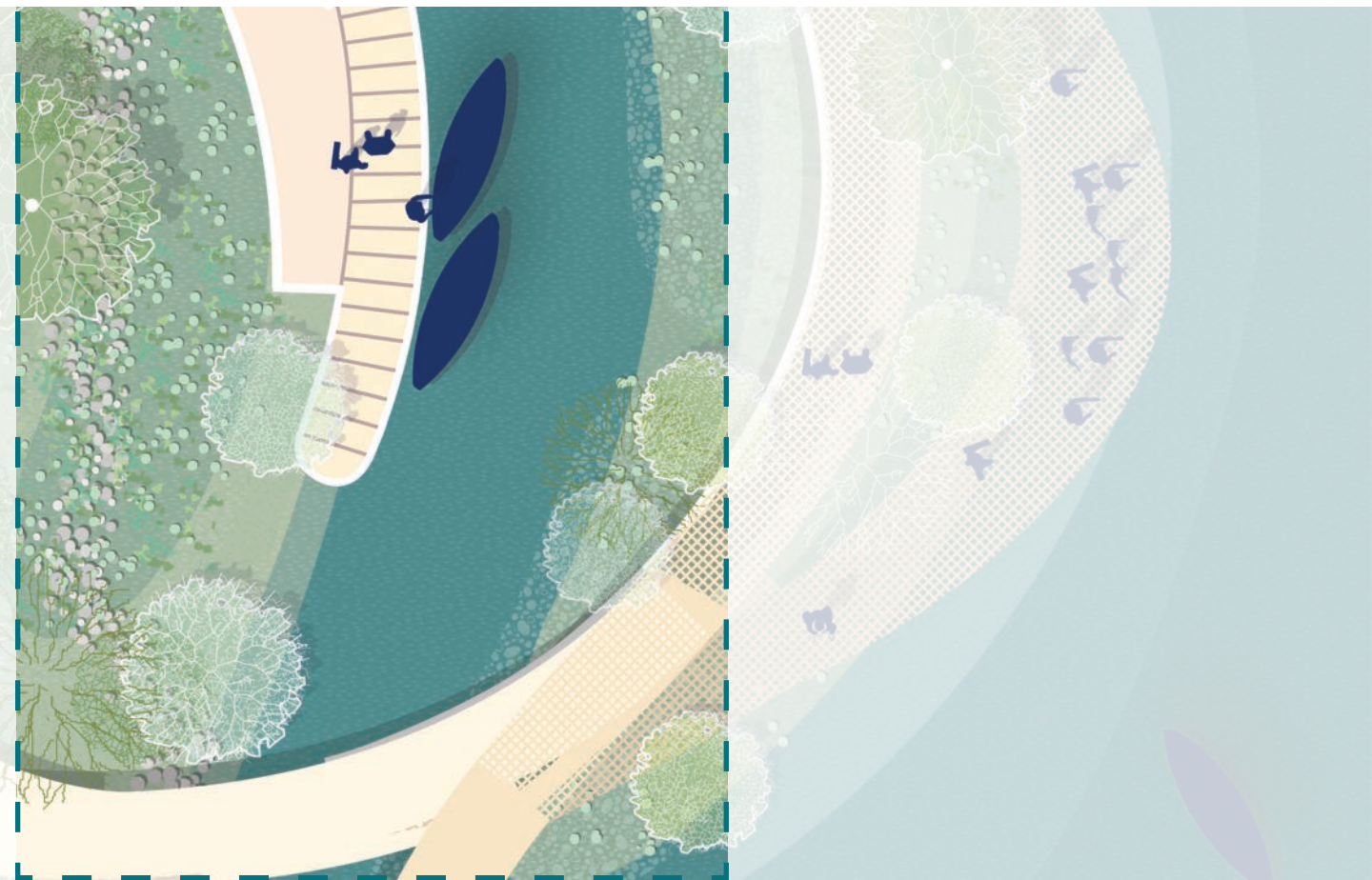
Water Trail



*More inclusive
narrative about who
we are*

*Pedestrian-only spaces
better separated from
roadway and bike lanes*

*Landscape that
encourages people
to spend time by
the water*



Learning in Spring



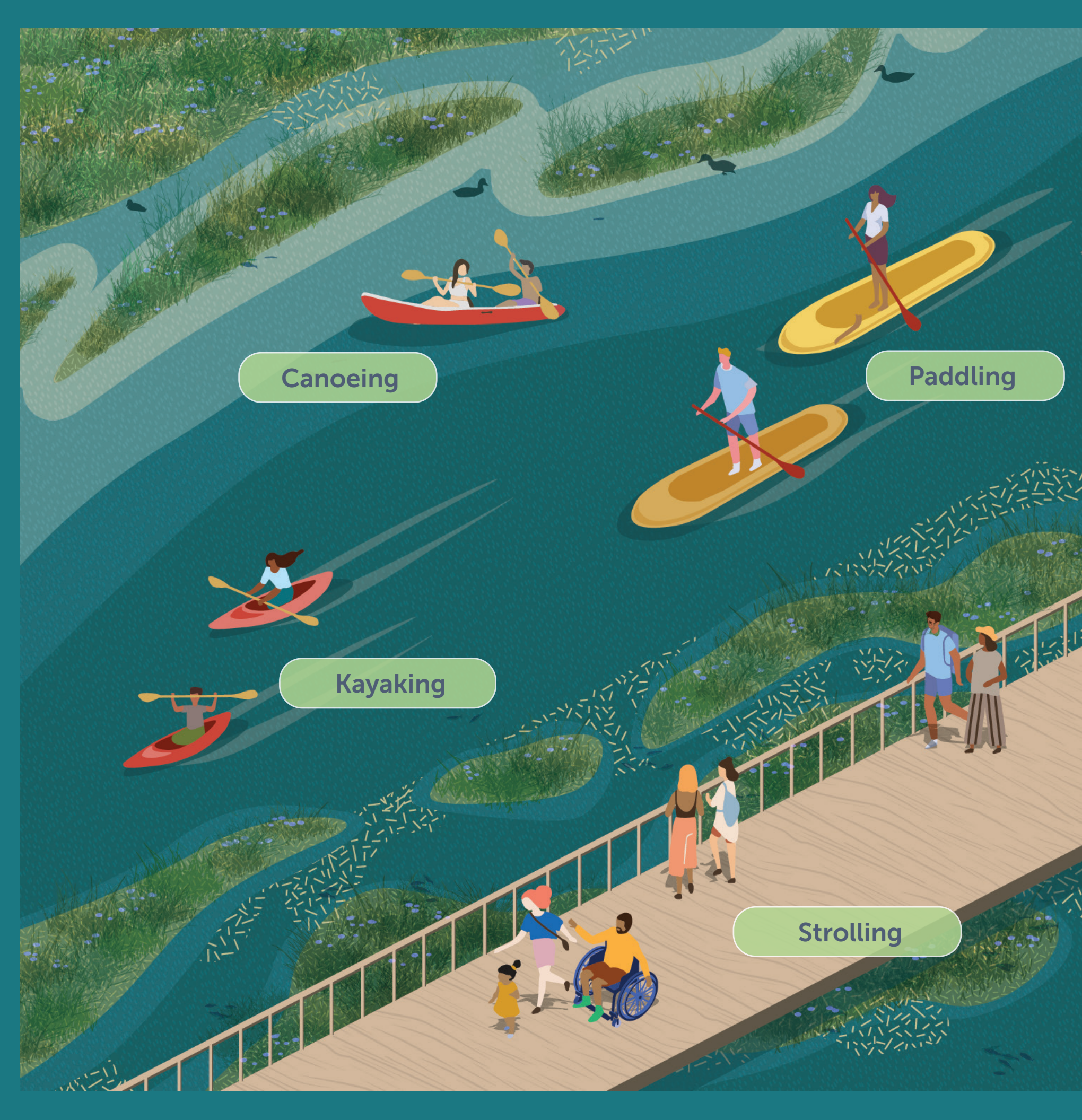
Places to dock

Plant class

Birdwatching

Water Trail

Boating in Summer



Canoeing

Paddling

Kayaking

Strolling

Water Trail

Relaxing in Fall



Boating

Playing

Meditating

Water Trail

Ice skating in Winter



Crosscountry skiing

Sledding

Ice skating

Learning ice safety

Water Trail

Walk on Water



Feet dangling spaces

Fishing bump outs

Steps into the water

There is a real demand for services and for places where people can relax by the water





Fishing in Spring

Walk on Water



Concessions

Celebrating

water ski shows

Spectating in **Summer**

Walk on Water

Birding in Fall



Photographing

Migratory birds

Sailing

Walk on Water

Out on the ice in Winter



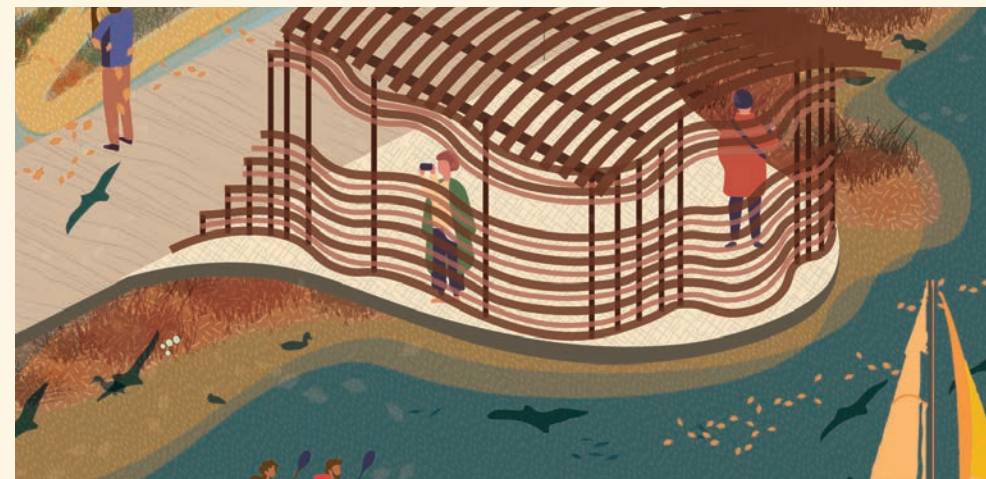
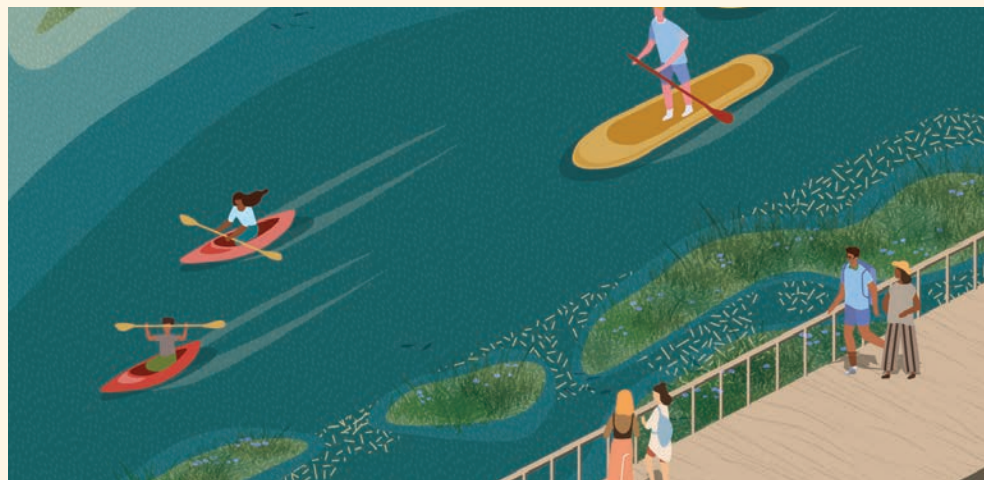
Public art

Safe platforms

Ice fishing

Snowshoeing

Walk on Water



Let's travel in time!



bit.ly/lakemonona100



LET'S TRAVEL IN TIME! 

Fall, 2122

Dear Lake Monona,

Signed,

Imagine your vision for Lake Monona in 2122 - one hundred years in the future - what are you experiencing and how do you feel?