



MEMPHIS HARBOR PROJECT

MISSISSIPPI RIVER CITIES & TOWN INITIATIVE

MISSISSIPPI WATERWORKS



MEMPHIS HARBOR PROJECT

MAYOR: JIM STRICKLAND

PUBLIC WORKS DIRECTOR: ROBERT KNECHT

PRINCIPAL EXPERT: LOUIE L. YU LIN, PH.D., P.E.

CITY OF MEMPHIS

Memphis Harbor

Public Works

Water Resources Vision

“The face of the water, in time, became a wonderful book—a book that... told its mind to me without reserve, delivering its most cherished secrets as clearly as if it uttered them with a voice. And it was not a book to be read once and thrown aside, for it has a new story to tell every day.”

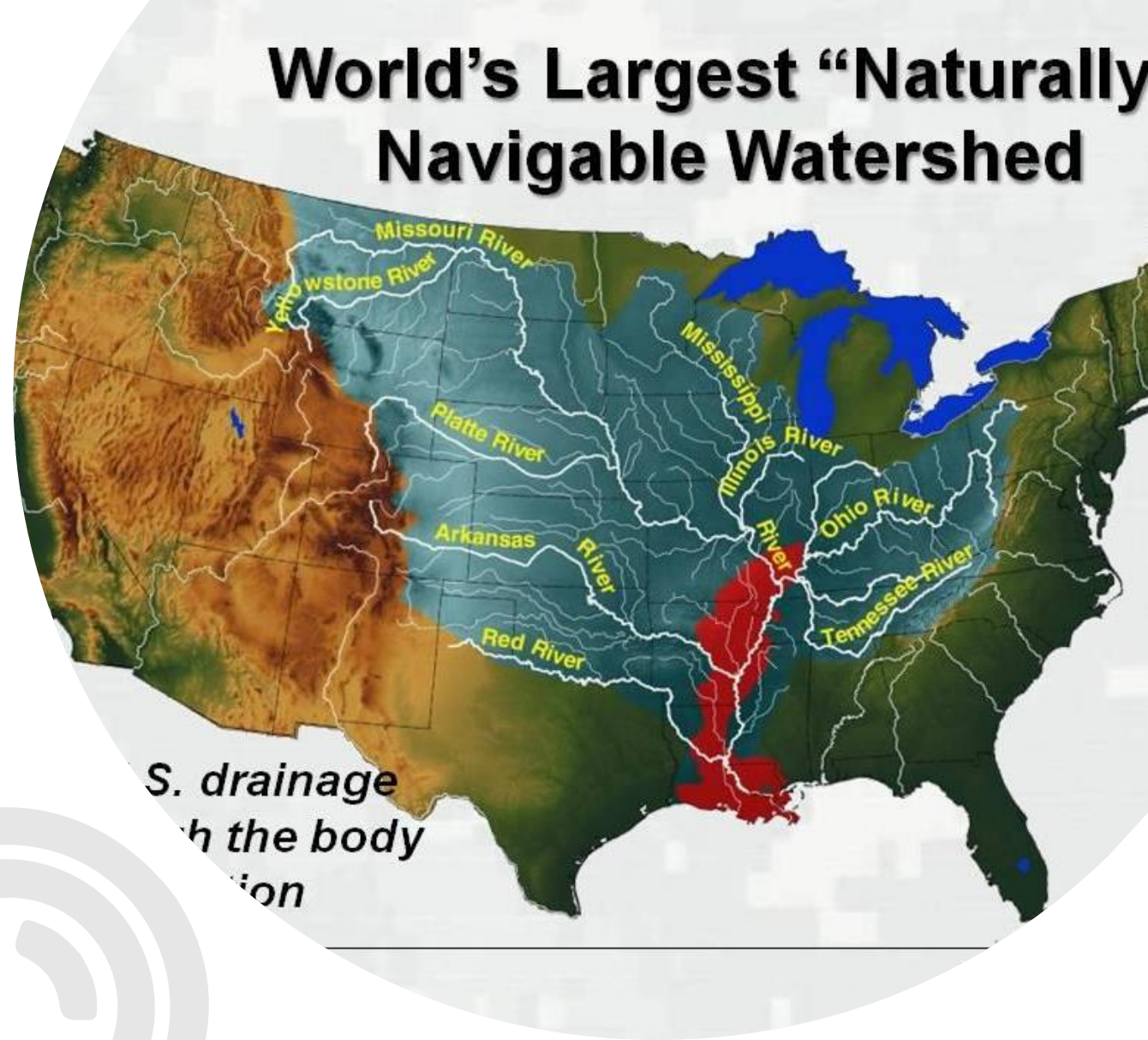
Mark Twain, Life on the Mississippi





MISSISSIPPI RIVER

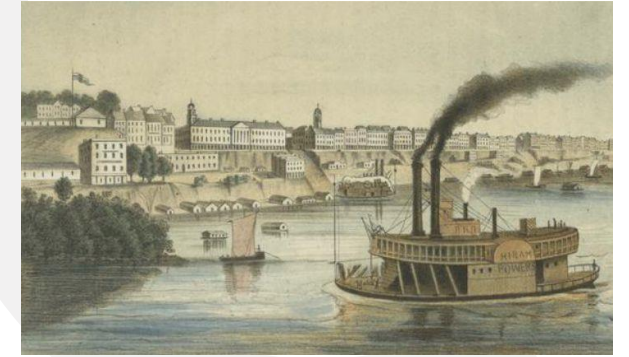
- Longest river in North America: 2,350 miles
- Average speed: 1.2 mph
- Watershed area: 1.2 million square miles
- Discharge: 593,000 ft³/sec
- Amazon discharge: 7,381,000 ft³/sec
- Water supply: 18 million people
- Produces 92% of nation's agricultural exports



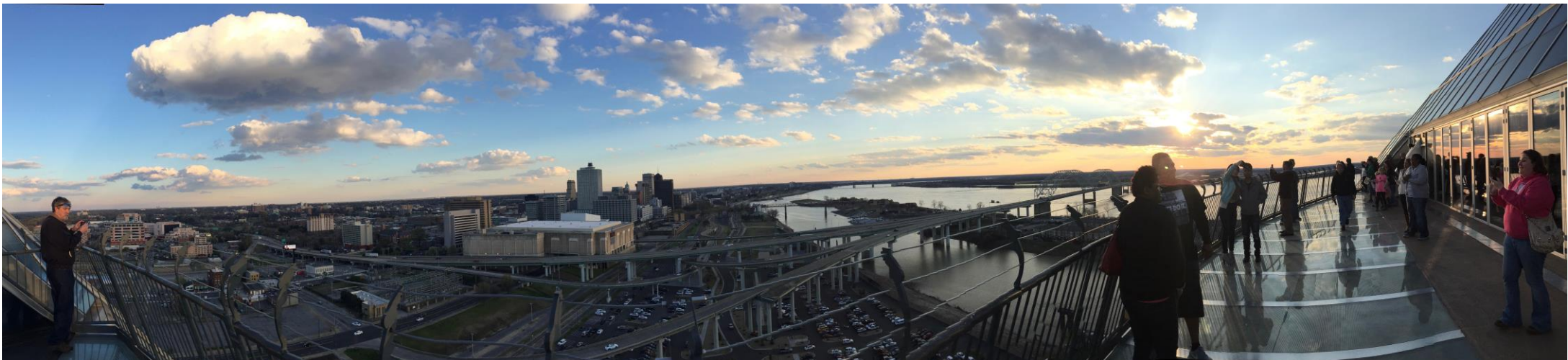
Memphis City

- Largest city on the Mississippi River
- Rank 26 largest City in the United States – 650, 618 (2018)
- Rank 42 largest Metropolitan area in the United States – 1,348,260 (2018)

Memphis in the mid-1850s



Historic aerial view of Memphis, 1870



MEMPHIS TOURIST



TOURISM STATISTICS

2018 Annual Visitors: 11.8M+
Leisure & Hospitality Jobs in Shelby County in 2018: 49K+
Leisure & Hospitality Businesses in Shelby County: 2,000+.

2018 Annual Economic Impact of Domestic Visitors: \$3.65B
State Tax Receipts Generated: \$179.5M
Local Tax Receipts Generated: \$101M



TOP TRAVEL MOTIVATORS

The top travel motivators for Memphis visitors include paying their respects to Memphis music legends like Elvis, B.B. King and Johnny Cash; experiencing our current live music scene and the Memphis nightlife in person, especially Beale Street; tasting our world-famous barbeque; and most importantly, spending quality time making memories with friends and family.

LEISURE TRAVELER PROFILE

Based on personal interviews with 1,300 actual Memphis attraction visitors, we have considerable insight into the characteristics of a Memphis attraction visitors

- **Average Number of Adults in Attraction Travel Parties: 2.4 Adults**
- **Share of Memphis Attraction Travel Parties that Include Children: 34%**
- **Average Number of Children in Attraction Family Travel Parties: 2 Children**
- **Average Nightly Expenditures for Attraction Travel Parties: \$398 Nightly**
- **Average Length of Stay for Attraction Leisure Travel Parties: 2.4 Nights**
- **Share of Attraction Travel Parties Staying Overnight: 77%**
- **Share of Overnight Attraction Travel Parties Staying in Hotels: 66%**

Current River Front Landmark

BASS Pro Shops:

2019 – 56.3 millions

2018 - 46.0 millions

2017- 45.8 millions



PROPOSED PROJECTS

Mud Island river Park

Aquarium Museum and Water Studies



Water Technology Park



Freshwater Institute



MEMPHIS' WATER RESOURCES VISION



- Cultural Center
- Aquarium Museum / Water Studies
- The Platter / River Model
- Mud Island River Park / Cobble Grove
- Tom Lee Park / Civic Terrace / Fourth Bluff
- Riverside Drive Parking



Beale

Peabody

Union

Monroe

Madison

Front Street

Main Street

Jefferson

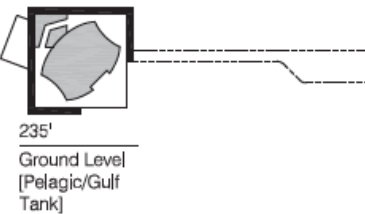
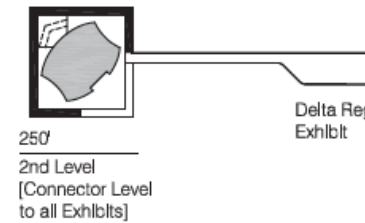
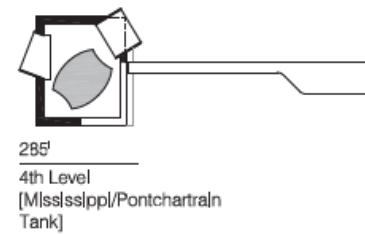
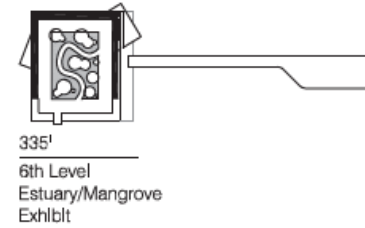
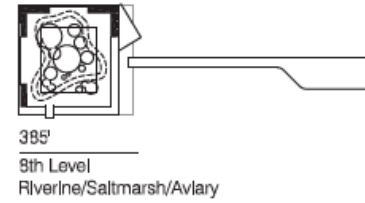
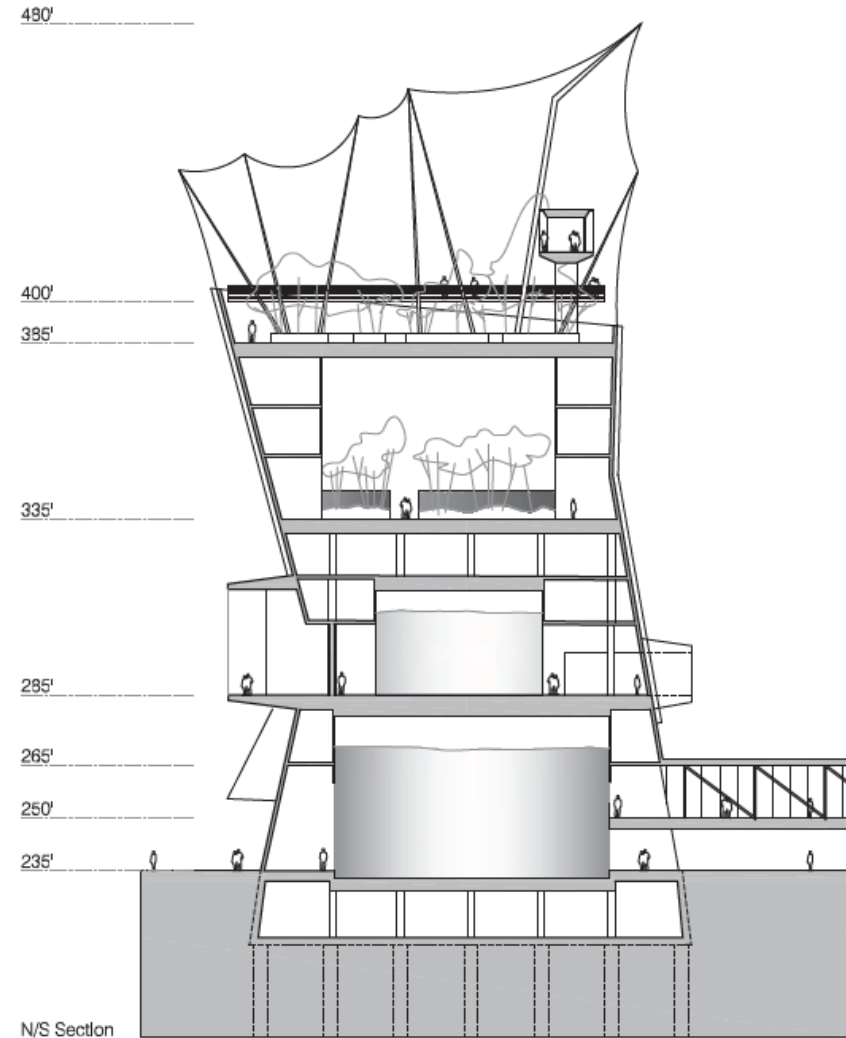
Adams

Poplar

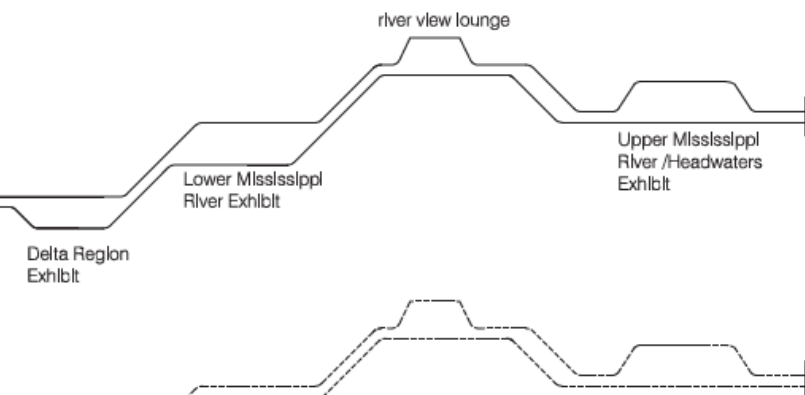
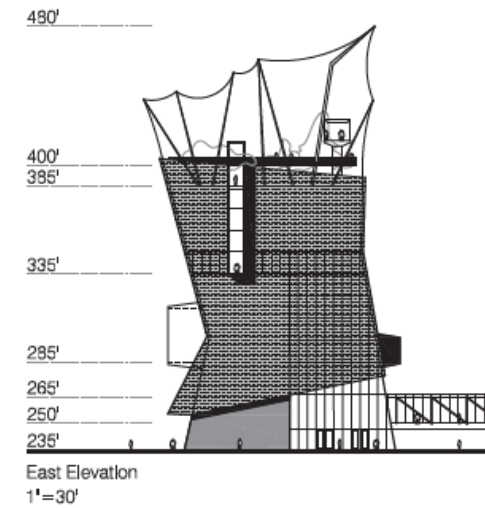
AQUARIUM MUSEUM



Concept Drawings



1"=200'



MUD ISLAND RIVER PARK



Memphis' Water Resources Vision



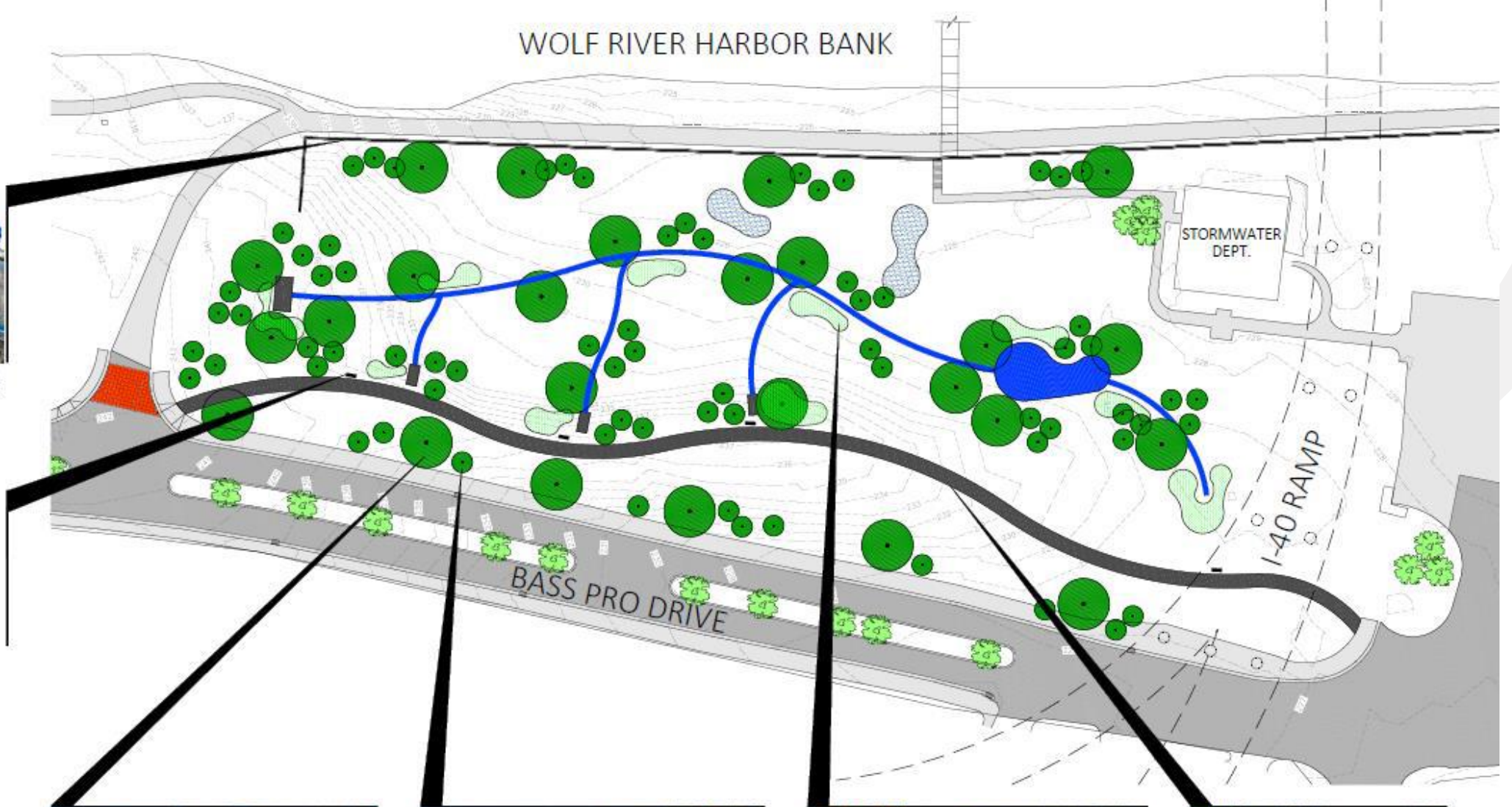
WOLF RIVER HARBOR BANK



LOCAL WATERSHEDS
MURAL



NATURAL STONE
STYLE BENCH



SHADE TREES
BALD CYPRESS AND OAKS



ORNAMENTAL TREES
MAGNOLIA AND REDBUDS



MIXED NATIVE PLANTING
SPECIES TO PROMOTE LOCAL WILDLIFE



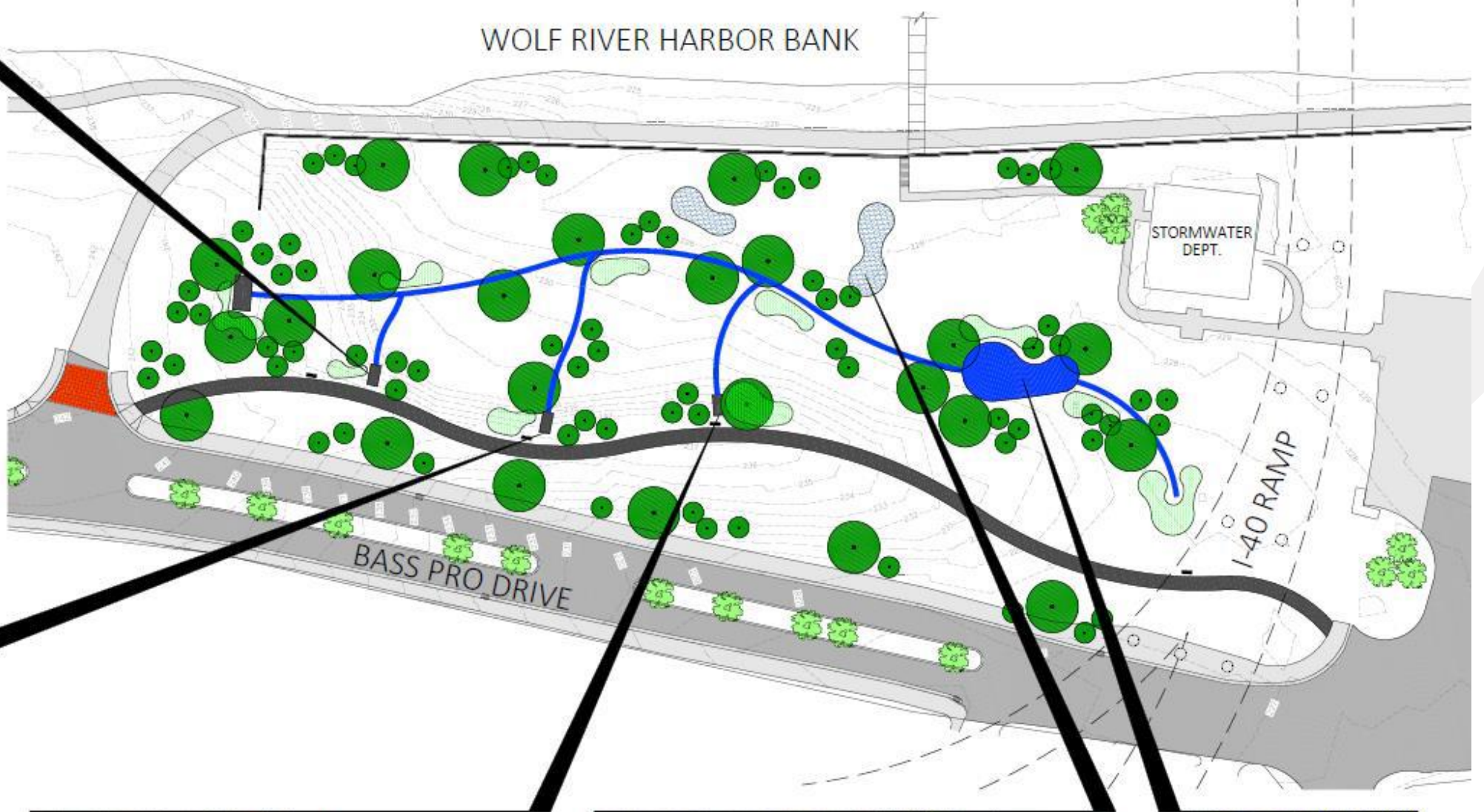
BIKE TRAIL



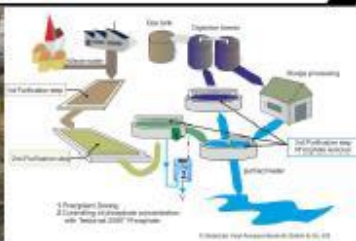
STORMWATER
RUNOFF EXHIBIT



PERVIOUS PAVEMENT
SYSTEM EXHIBIT



WASTEWATER TREATMENT



RAIN GARDEN AND INFILTRATION BEDS

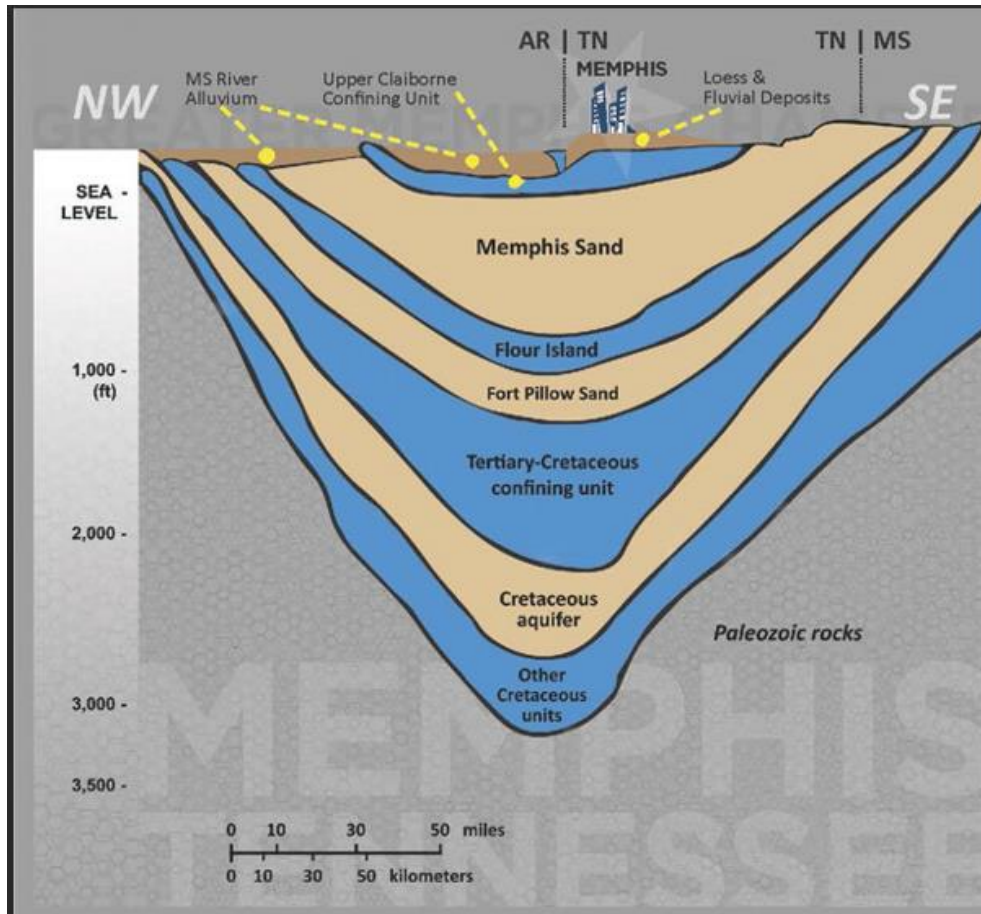


POND

MEMPHIS' WATER RESOURCES VISION



MEMPHIS SAND AQUIFER



A large footprint

The Memphis Sand is part of a larger aquifer system underlying parts of eight states and encompassing an area larger than Lake Ontario.

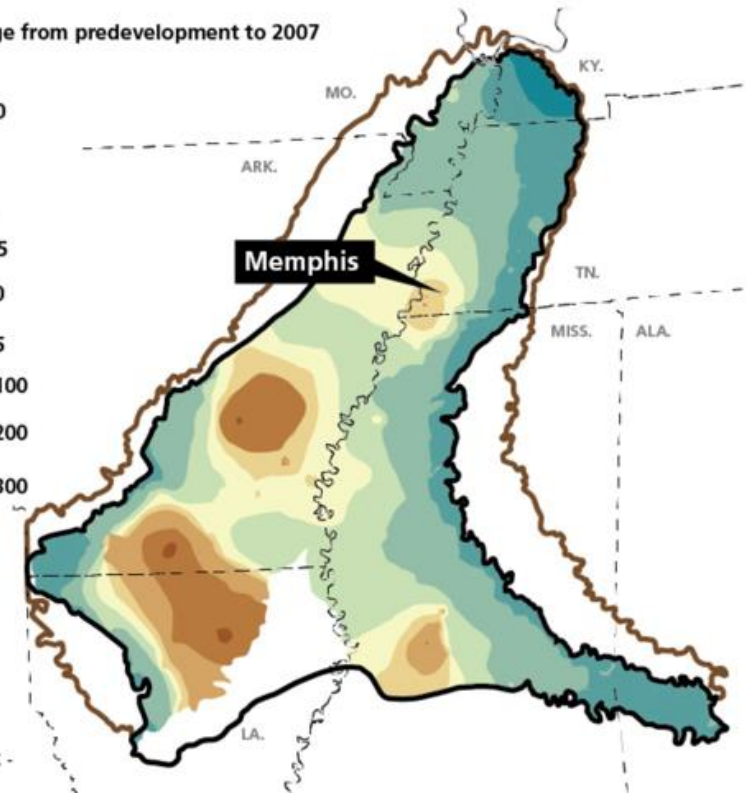
Water-level change from predevelopment to 2007
IN FEET



Study area boundary

Source: U.S. Geological Survey

KENT TRAVIS /
USA TODAY NETWORK -
TENNESSEE



LANDSCAPES

- Urban Landscape
- Rural Landscape
- Natural Landscape
- Educational Landscape



VALUE CREATED

- Create 500 jobs
- Provide education outreach programs for secondary and post-secondary levels
- Bring more than 100 million dollars tourist business a year potential to the City of Memphis



EDUCATION COLLABORATIONS



**MISSISSIPPI RIVER (3RD) - GEOMORPHOLOGY, SEDIMENTATION,
FLOOD CONTROL, ENVIRONMENTAL PROTECTION**

**YANGTZE RIVER (4TH) - 扬子江 GEOMORPHOLOGY,
SEDIMENTATION, FLOOD CONTROL, ENVIRONMENTAL
PROTECTION**

COST

- Mud Island Park – 150 millions
- Water Technology Park – 30 millions
- Freshwater Institute – 20 millions



PARTNERSHIPS

- Capital Investors
- Join Venture Capital
- College Collaborations
- U.S. Army Corps – River Study
- Cost Guard – Barge Transpiration
- Freshwater Institute- Water Pollution and Water Usage





QUESTION?





THANK YOU!

