

# White Rock Lake Dredging

Project Understanding Update

Community Meeting | Tuesday, December 2, 2025



# ① Background Information

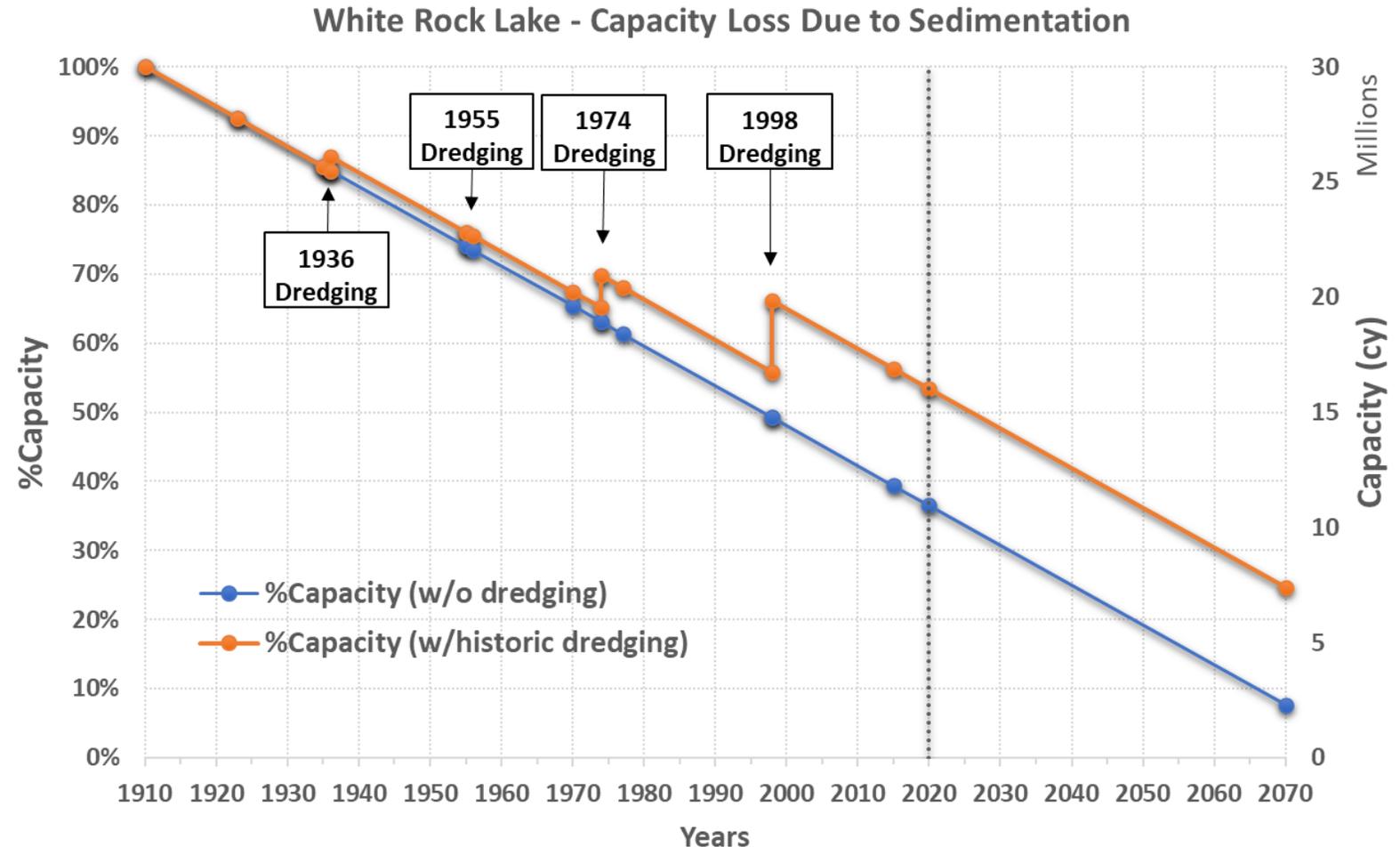
# Dredging Feasibility Study (2020)

- Primary purpose for dredging has recreational focus
  - Restore safe boating depths
  - Improve shoreline aesthetics
  - Minimize impact to sensitive areas
  - Consider long-term sustainability
- Target depth for safe boating is ~8-10 feet
  - Dredging not necessary in areas greater than 10 feet deep



# Dredging Feasibility Study (2020)

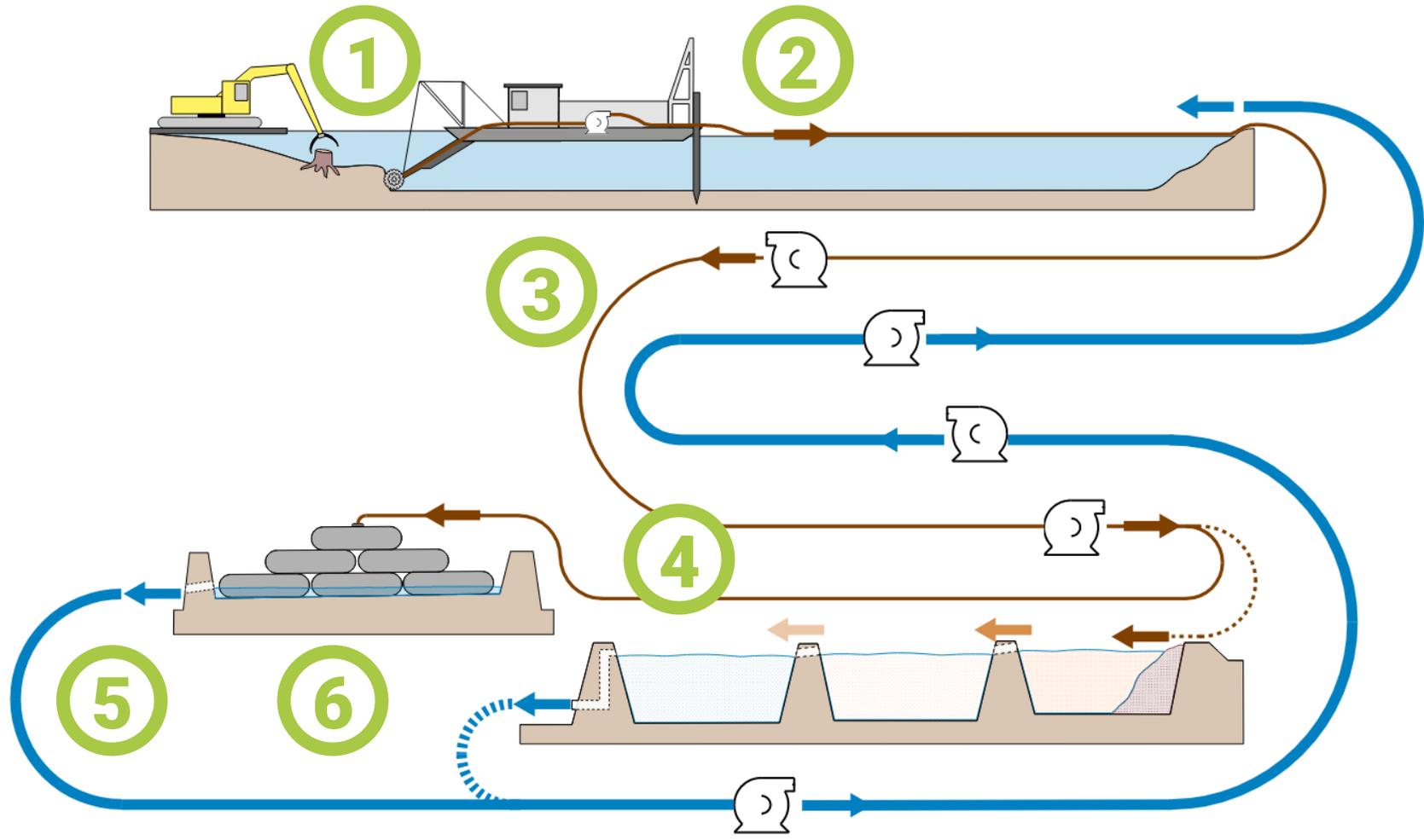
- Review of past dredging operations and sediment surveys
  - Four previous dredge activities, about every ~20 years
  - Approximate annual lakewide sediment load = 170,000 CY



# ② Dredging Process

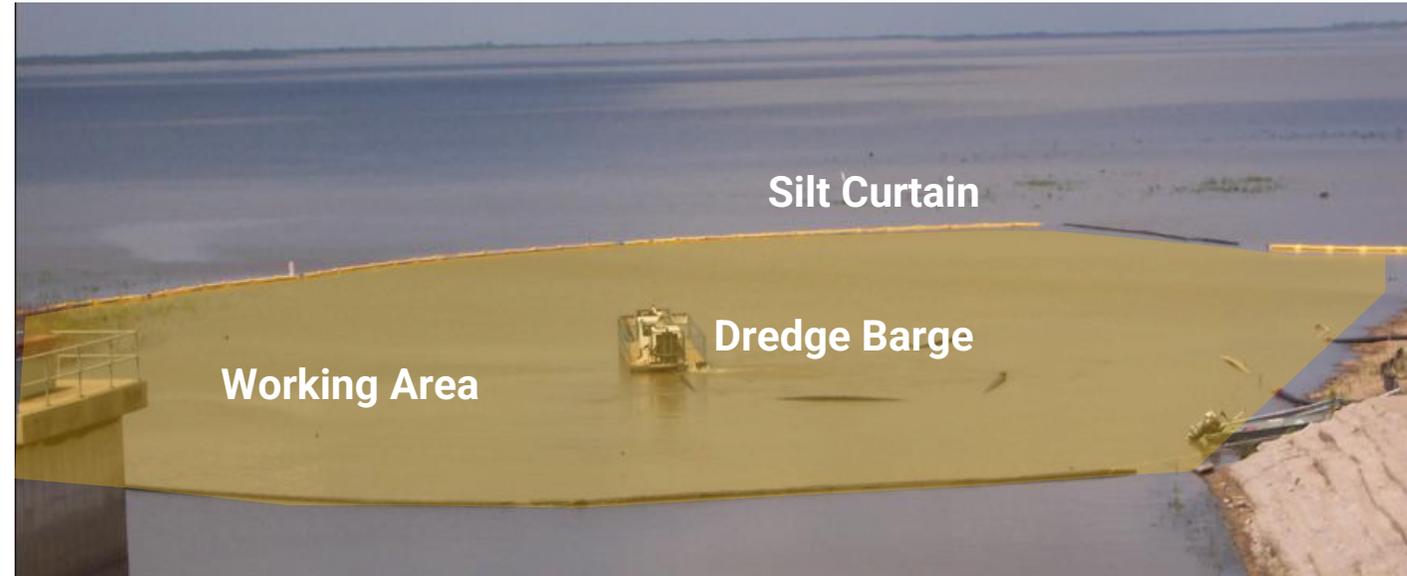
# Dredging, Dewatering & Disposal Process

- 1) Hydraulic Dredge
- 2) Slurry Line to Lakeside Staging
- 3) Slurry Line to Dewatering Site
- 4) Dewatering Process
- 5) Return Water  
*(to Lake via Pumps or Stream via Gravity)*
- 6) Final Use of Materials  
*(Applied Onsite or Truck Away)*

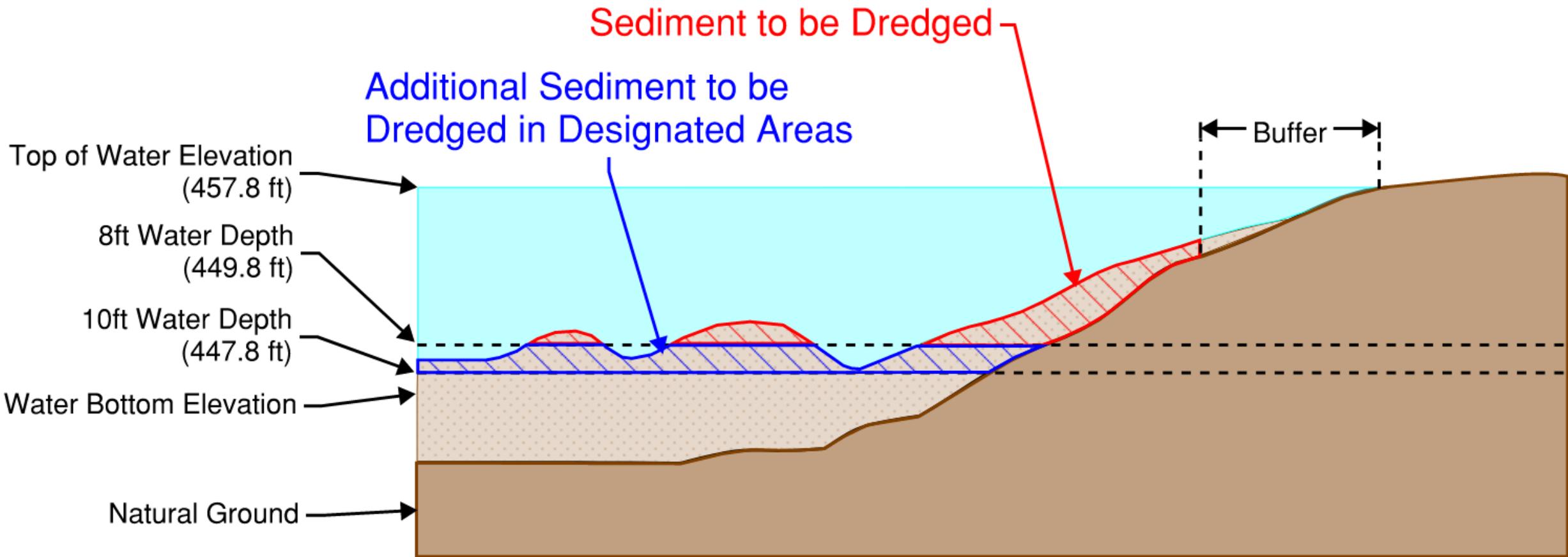


# Lakeside Dredging Operations

- Hydraulic dredging
  - Dredge barge with cutter head and suction hose
  - Floating slurry line to dewatering site
- Target dredge depth of 8 feet with priority areas up to 10 feet

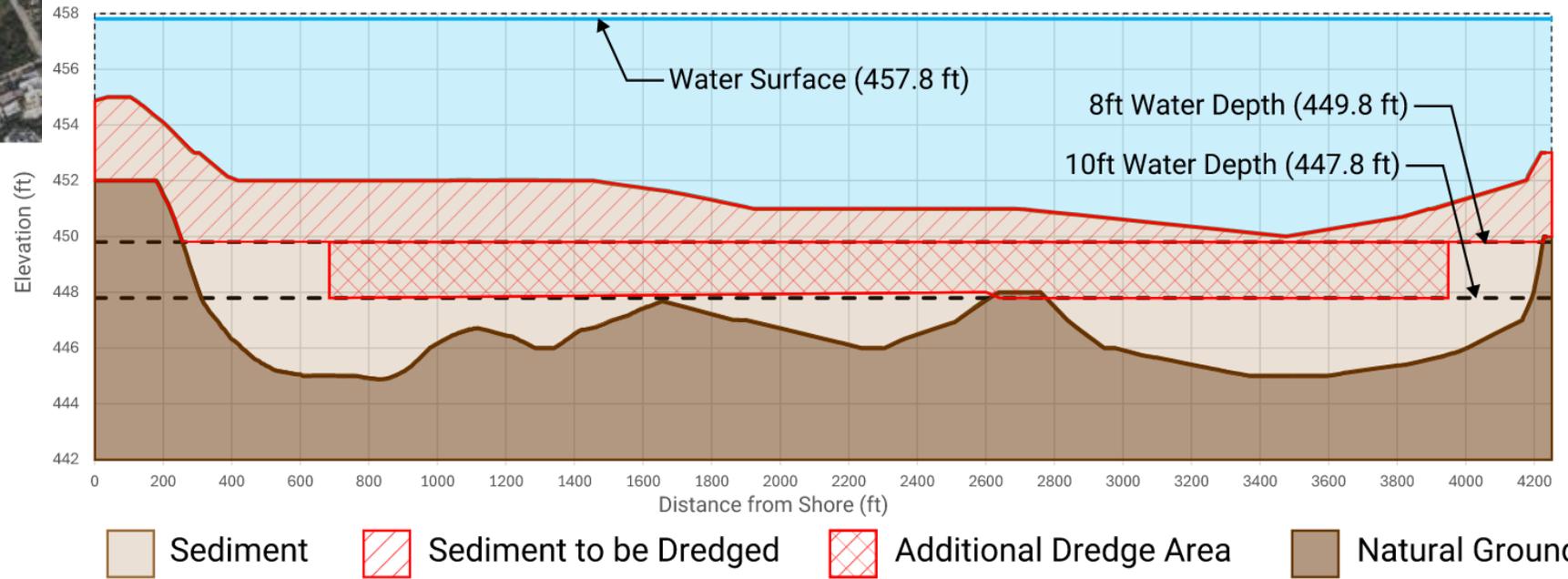


# Lakeside Dredging Operations



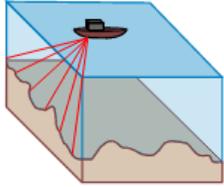


# Example Dredge Profile



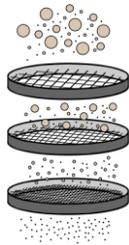
# ③ Project Updates

# Project Findings to Date



## Updated Bathymetric Survey

- Overall dredge quantity to meet lakewide target depth is 1.7M CY



## Geotechnical Investigation & Sediment Characterization

- Dredge materials found to be suitable for land application
- No chemicals of concern above acceptable thresholds



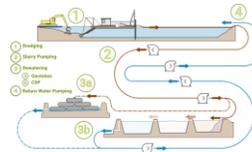
## Environmental Permitting

- Preliminary framework established



## Dewatering & Disposal Site Analysis

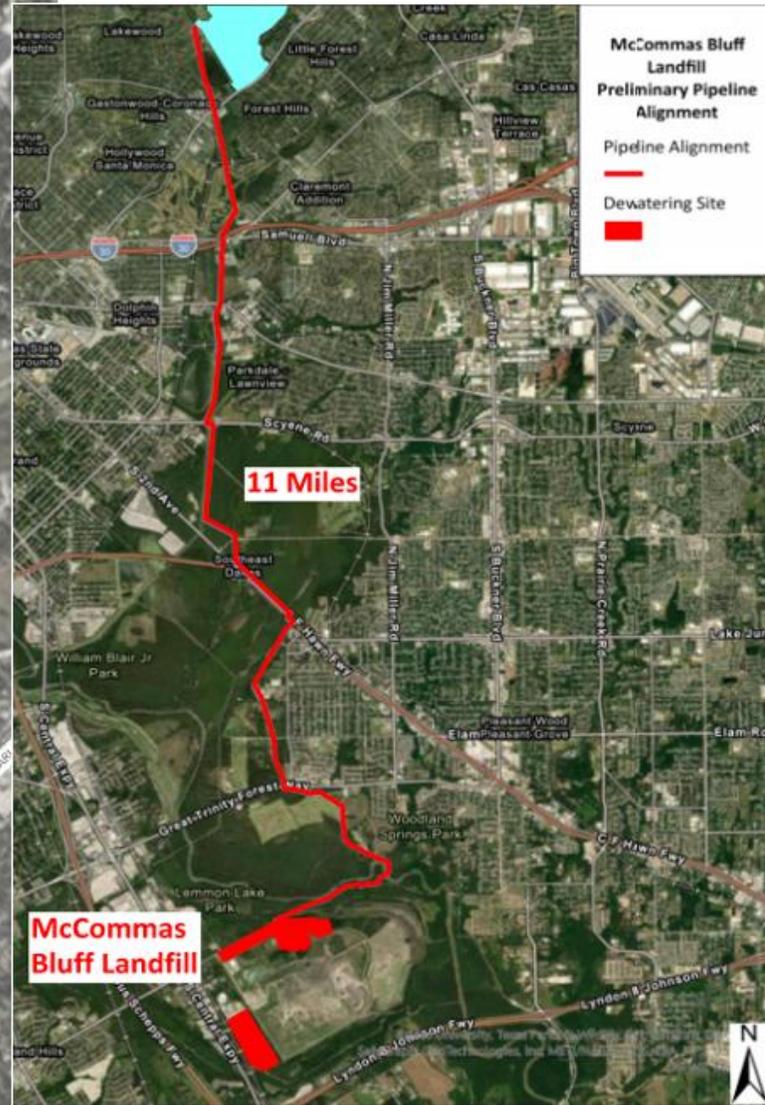
- Determined preferred methods based on project scale
- Identified potential sites with sufficient land area



## Preliminary Dredging Design

- Developed conceptual dredge, slurry pipeline, dewatering site drawings

# Project Findings to Date



## Lakewide Dredge Summary

**Approx. Dredge Volume:**  
1,690,000 CY

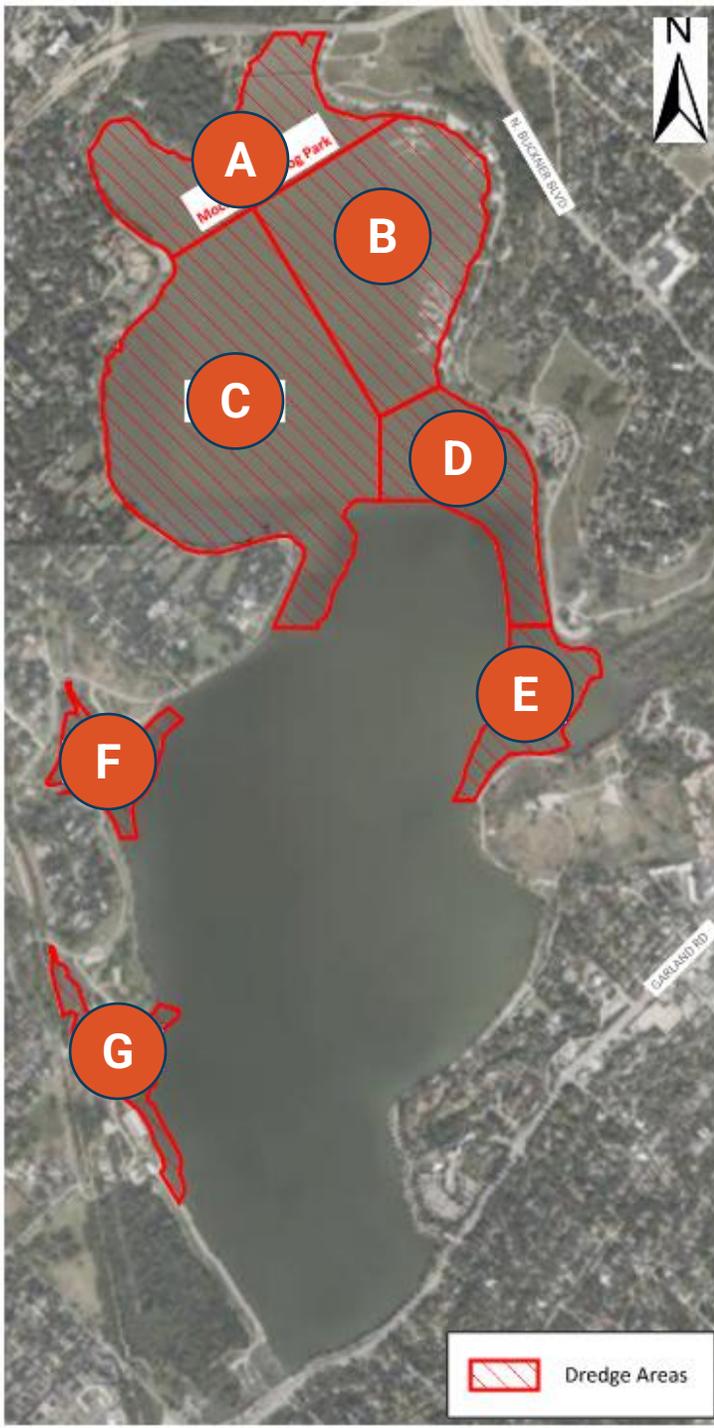
**Approx. Project Cost (2025 \$):**  
\$54M - \$80M

- **Project Assumptions:**
  - Hydraulic dredge with 20" slurry line
  - Approx. 11-mile pipeline
  - Geotube dewatering (or similar methodology)
- **Dewatering/Disposal Location:**
  - Dredge material is acceptable for beneficial reuse as daily cover at McCommas Bluff Landfill

# Sediment Distribution

Location		Sediment Volume (CY)
A	Mocking Bird	192,100
B	Sailing Club	352,600
C	West Lawther	818,500
D	Bath House	130,900
E	Sunset Bay	112,200
F	Boat Launch	61,700
G	Boat House	22,000

**Total: 1,690,000**

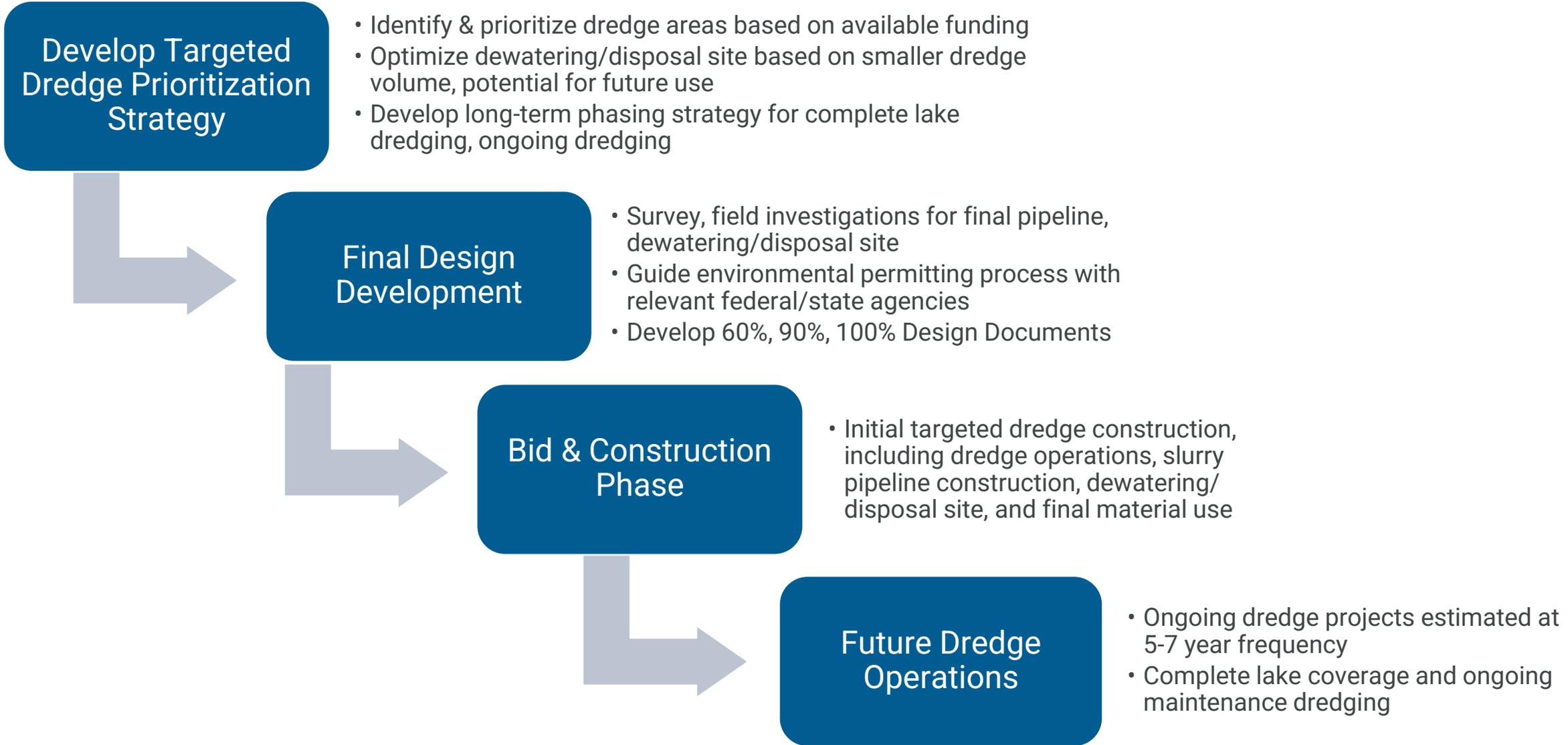


# ④ Next Steps

# Targeted Dredge Program

- Approximate Cost for Lakewide Dredge Project (1.7M CY)
  - \$54M – \$80M
- Available City Budget
  - Approx. \$20M
- Targeted Dredge Program to be Scaled to Available Budget
  - 300k – 600k CY (focused on prioritized areas)
  - Dredge volume depends on dewatering/disposal site optimization (immediate next step)
  - Establish phased dredge program to address lakewide needs (approx. every 5-7 yrs)





## Develop Targeted Dredge Prioritization Strategy

- Identify & prioritize dredge areas based on available funding
- Optimize dewatering/disposal site based on smaller dredge volume, potential for future use
- Develop long-term phasing strategy for complete lake dredging, ongoing dredging

## Final Design Development

- Survey, field investigations for final pipeline, dewatering/disposal site
- Guide environmental permitting process with relevant federal/state agencies
- Develop 60%, 90%, 100% Design Documents

## Bid & Construction Phase

- Initial targeted dredge construction, including dredge operations, slurry pipeline construction, dewatering/disposal site, and final material use

## Future Dredge Operations

- Ongoing dredge projects estimated at 5-7 year frequency
- Complete lake coverage and ongoing maintenance dredging

# Thank You