

LAKE ACCOTINK FORECASTING

TASK FORCE MEETING – OCTOBER 2, 2023

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Note: all materials in this presentation are based on high-level assessments and should be considered preliminary.





2. LAKE AS WETLAND

What is required to develop a plan to manage the lake footprint as a wetland?

The screenshot shows the Fairfax County website with a dark navigation bar containing links for RESIDENTS, BUSINESS, GOVERNMENT, FAIRFAX COUNTY VIRGINIA, SERVICES, CONNECT, and TRANSLATE. Below the navigation bar is a search bar and a large banner for the Lake Accotink Park Master Plan Revision. On the left side, there is a 'Department Resources' menu with various links. On the right side, there is an 'ANNOUNCEMENT' section with text about postponed community meetings and a photograph of a wooded area with a lake in the background.

RESIDENTS BUSINESS GOVERNMENT FAIRFAX COUNTY VIRGINIA SERVICES CONNECT TRANSLATE

Search our site

Lake Accotink Park Master Plan Revision

Department Resources

- Department Homepage >
- Parks +
- Rec Centers +
- Golf Courses +
- Programs and Activities +
- Natural and Cultural Resources +
- Trails +
- Special Topics >
- Holiday Hours and Class Schedules >
- Jobs at the Park Authority +
- Rentals and Permits +
- Long Range Planning >
- Planning and Improvements +
- Park News >

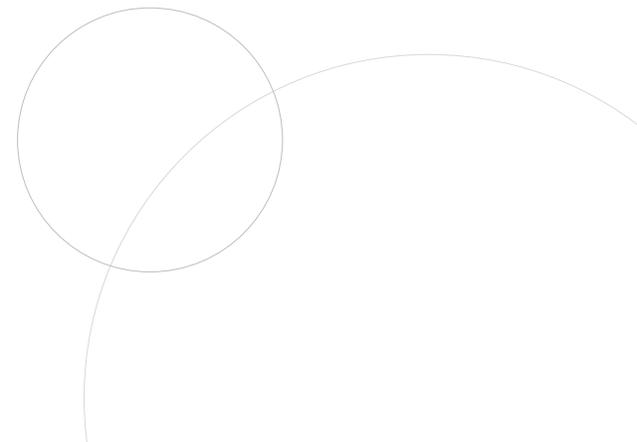
ANNOUNCEMENT

The Lake Accotink Master Plan Revision community meeting at Cardinal Forest Elementary School scheduled for Tuesday, March 31, 2020 and the community meeting at the large waterfront pavilion in Lake Accotink Park on Saturday, April 18, 2020 are postponed indefinitely, due to Coronavirus (COVID-19) safety precautions. Public input continues to play a big role in developing a vision for how this park will serve the community for years to come. Please check the website in the upcoming weeks for rescheduled meeting dates. For current updates on the County's coronavirus response, please [click here](#).



Questions About What the Lake Can Be

- Is managing the lake as a wetland a viable or potentially desirable option? (Question 2)
 - What might it look like? (2c)
 - How long will it take to create a managed wetland that is a community asset providing environmental and recreational benefits? (2d)
- Could a managed wetland option include open water areas? (Question 3)
 - Where might open water be located? (3a)
 - What type of open water could be maintained? (3b)
- How would Lake Accotink Dam be incorporated into a managed wetland option? (Question 4)
 - Could the dam remain as is? (4a)
 - Could the dam be modified to improve wetland function and maintenance? (4b)
 - Would management options be improved by removal of any portion of the dam? (4c)
 - How could fish passage be incorporated into dam/lake management options? (4d)





USER EXPERIENCE



George W. Bush Presidential Center. Image credit: MVVA



Horn Pond. Image credit: Conservation Resource Alliance and AECOM



Horn Pond. Image credit: Dave Hampton



Chattahoochee Riverlands Design Guidelines. Image credit: SCAPE





ACCOTINK CREEK

BACKWATER REGION

DREDGING ZONE

DAM

FULL DREDGE

Scale: 1:300





INFILLING ANALYSIS

2016

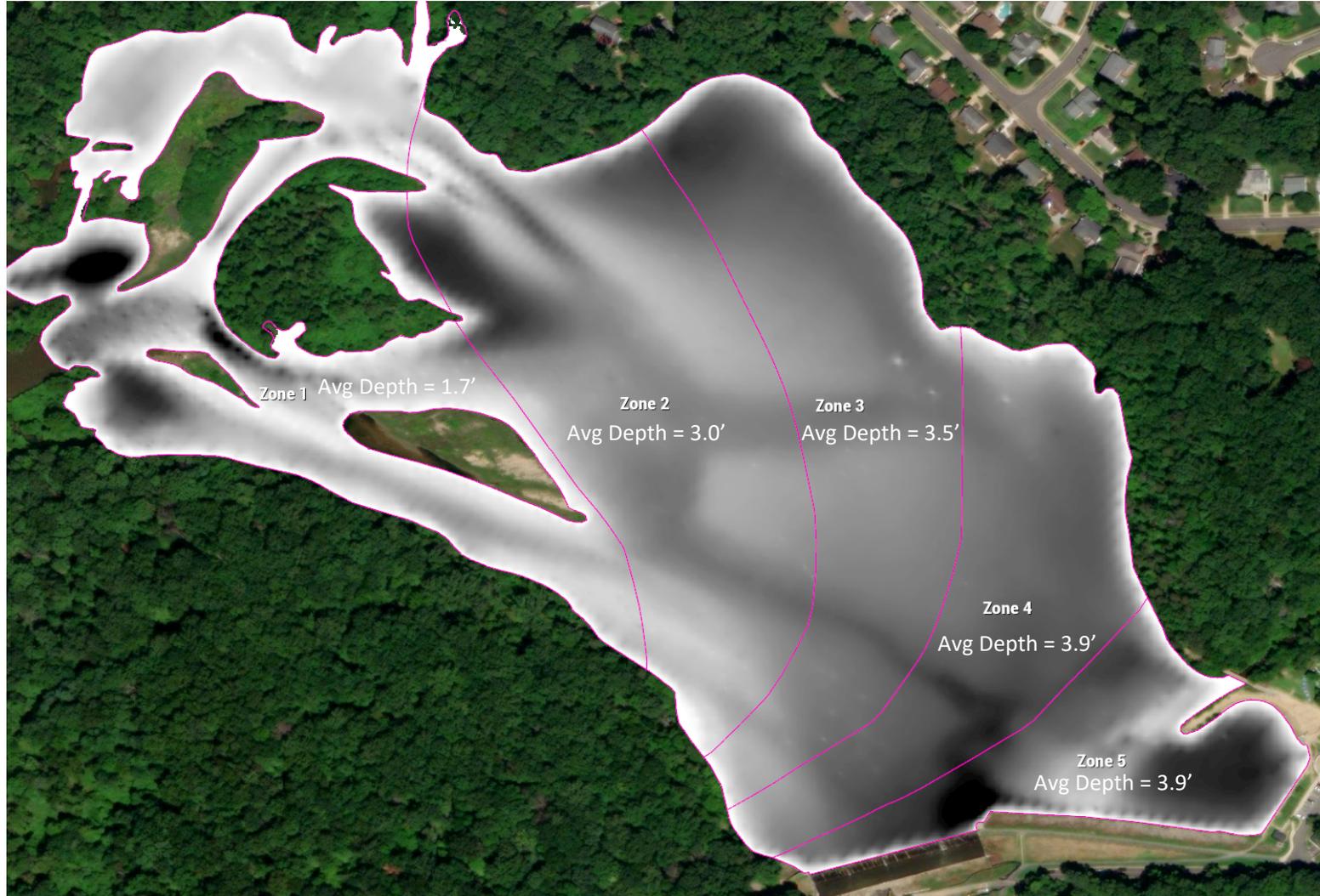


2021





INFILLING ANALYSIS





INFILLING ANALYSIS

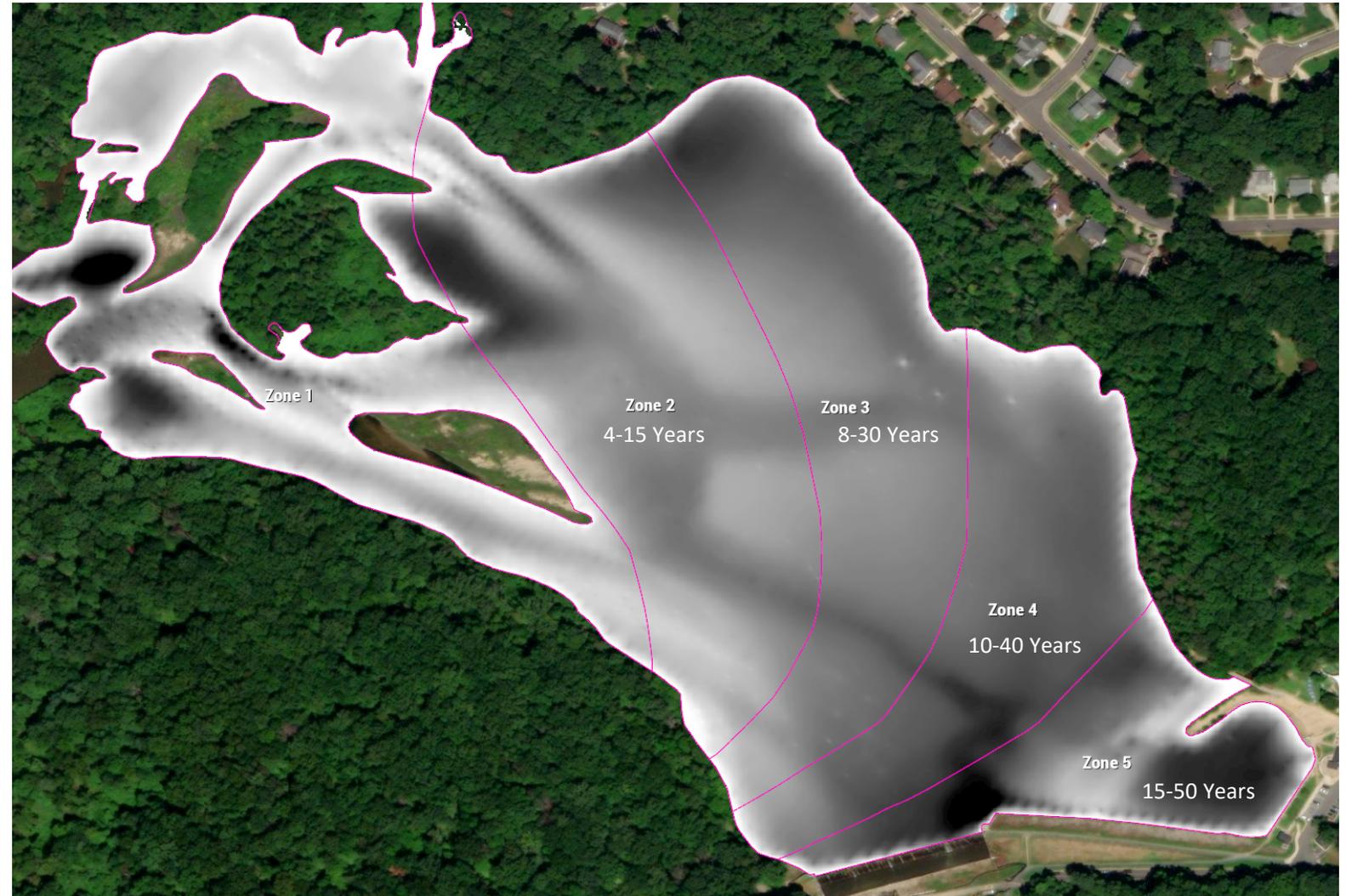
Times until the Lake infills to approximately this level



Infilling rates from "Lake Accotink Sediment Management Program Study" by HDR 2002

Notes:

- Estimated Retention = 17,411 cubic yards/year
- Accotink
- Total Sediment Load = 33,900 cubic yards/year
- ~13% of total load is bedload





ACCOTINK
CREEK

EXISTING RIPARIAN
ZONE

FUTURE RIPARIAN
ZONE

DAM

DO NOTHING - ULTIMATE CONDITION

Scale: 1:300





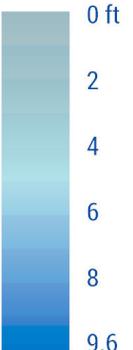


Estimated water depth
with lake at current normal pool
186.9 ft NGVD 29



Lake Accotink Fairfax County, Virginia

Estimated water depth (ft)
based on 2020 bathymetry survey
by Waterways Surveys & Engineering

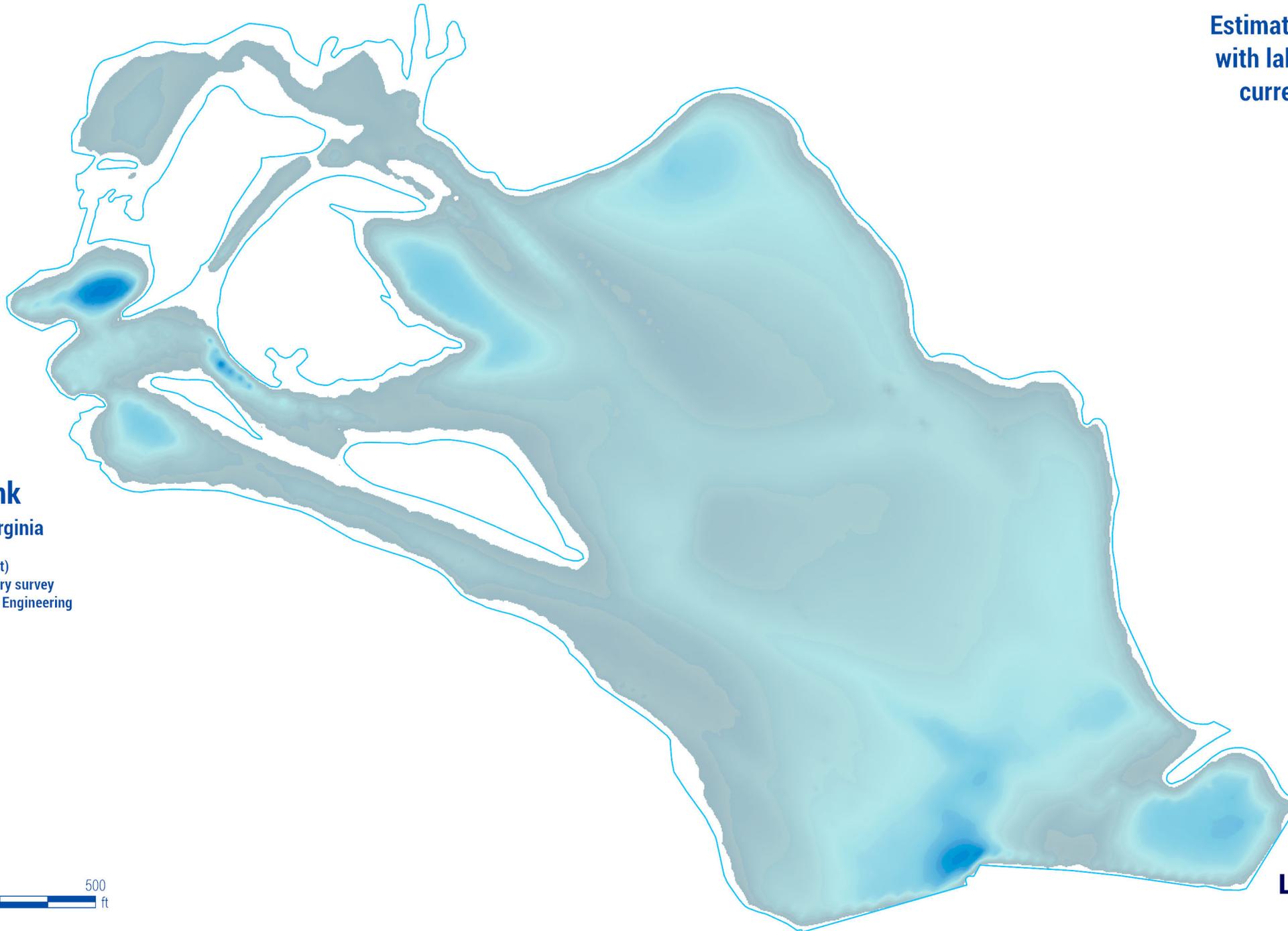
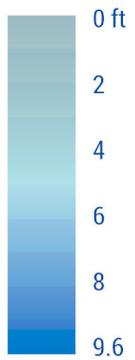




Estimated water depth
with lake at 1 ft below
current normal pool

Lake Accotink Fairfax County, Virginia

Estimated water depth (ft)
based on 2020 bathymetry survey
by Waterways Surveys & Engineering

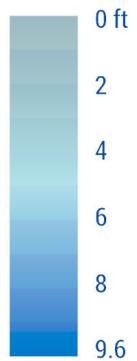




Estimated water depth
with lake at 2 ft below
current normal pool

Lake Accotink Fairfax County, Virginia

Estimated water depth (ft)
based on 2020 bathymetry survey
by Waterways Surveys & Engineering

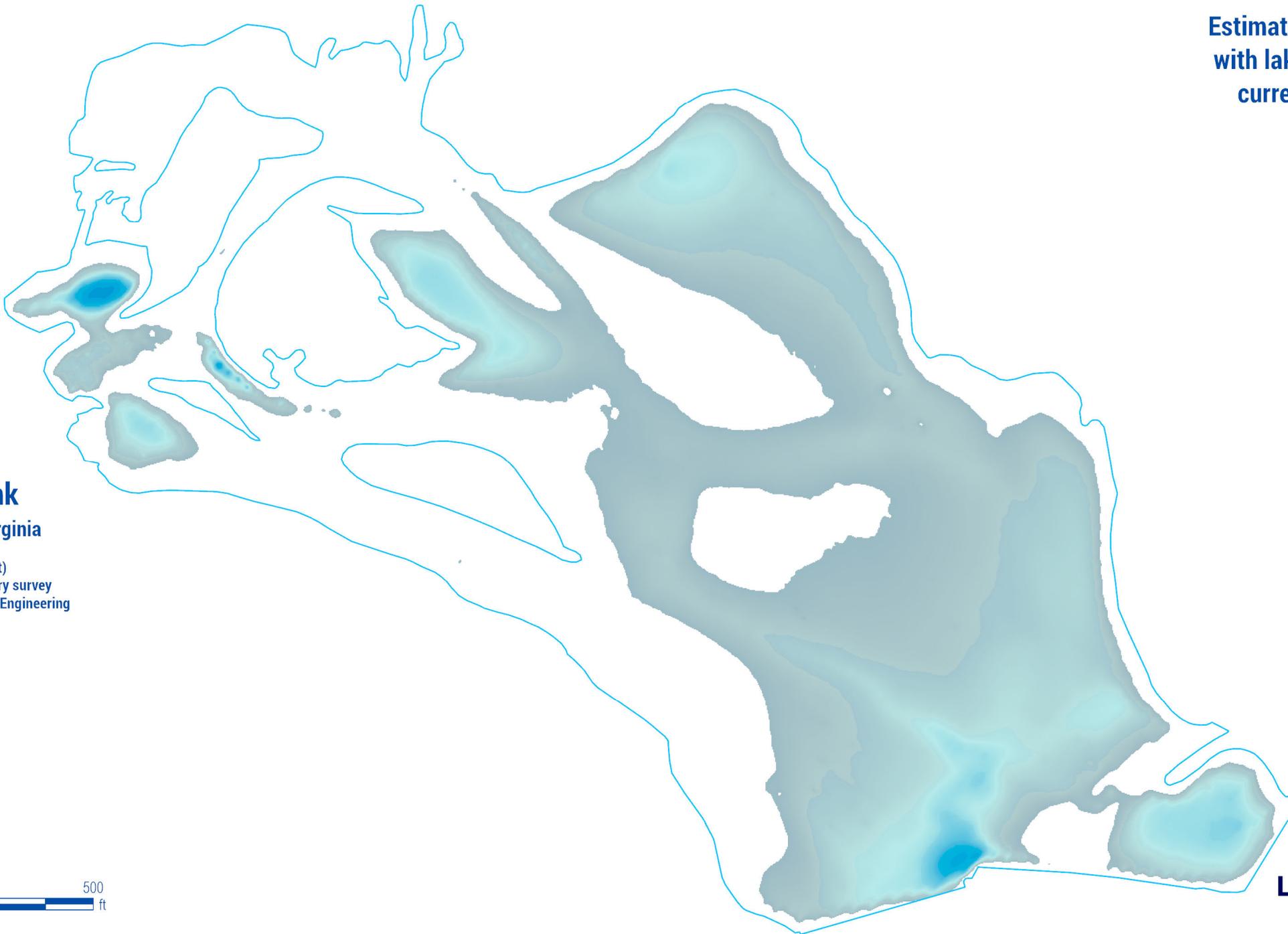
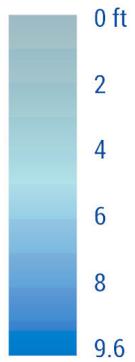




Estimated water depth
with lake at 3 ft below
current normal pool

Lake Accotink Fairfax County, Virginia

Estimated water depth (ft)
based on 2020 bathymetry survey
by Waterways Surveys & Engineering





ACCOTINK CREEK

BACKWATER REGION

BUILT ISLANDS

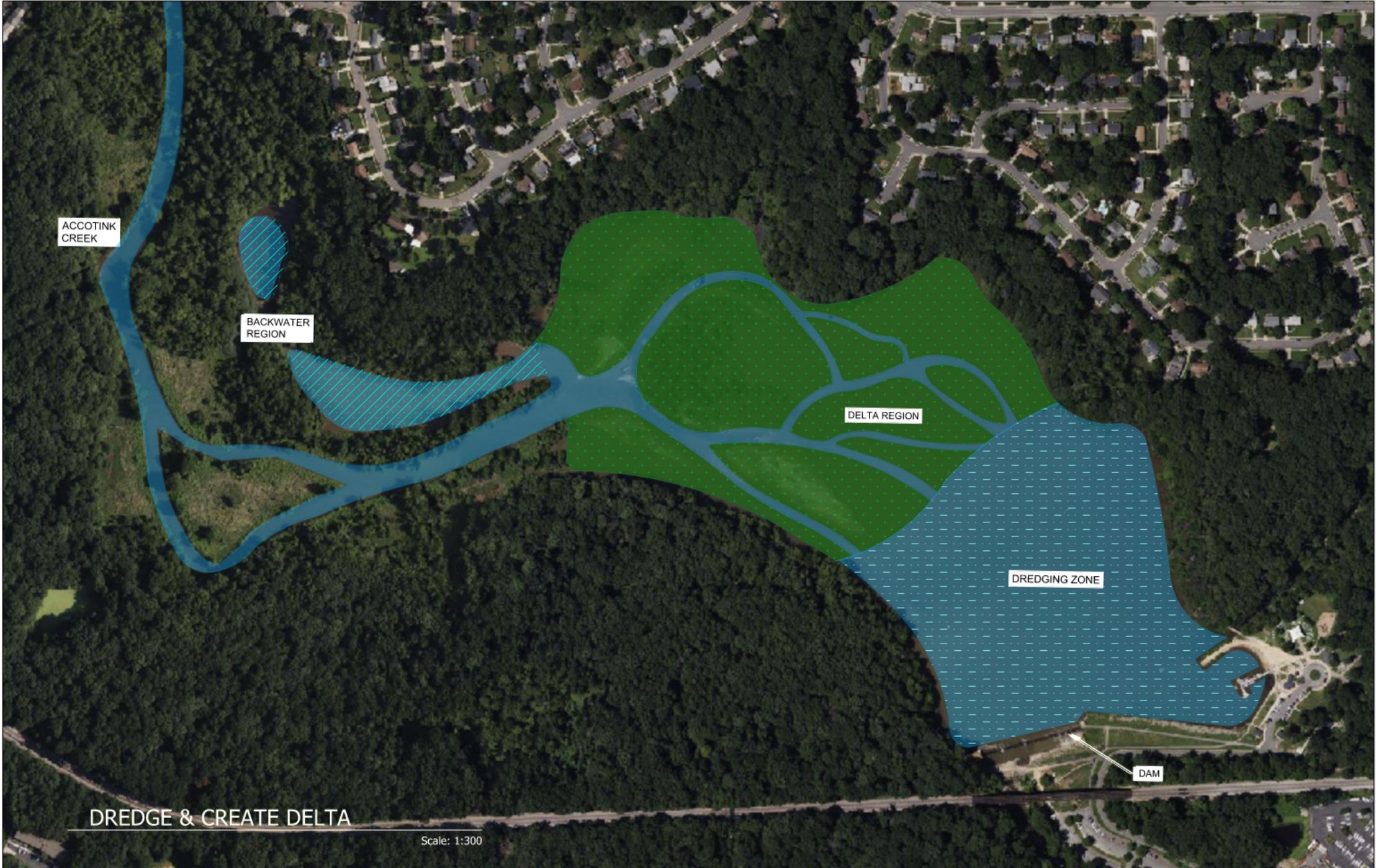
DREDGING ZONE

DAM

DREDGE & BUILD ISLANDS

Scale: 1:300





ACCOTINK CREEK

BACKWATER REGION

DELTA REGION

DREDGING ZONE

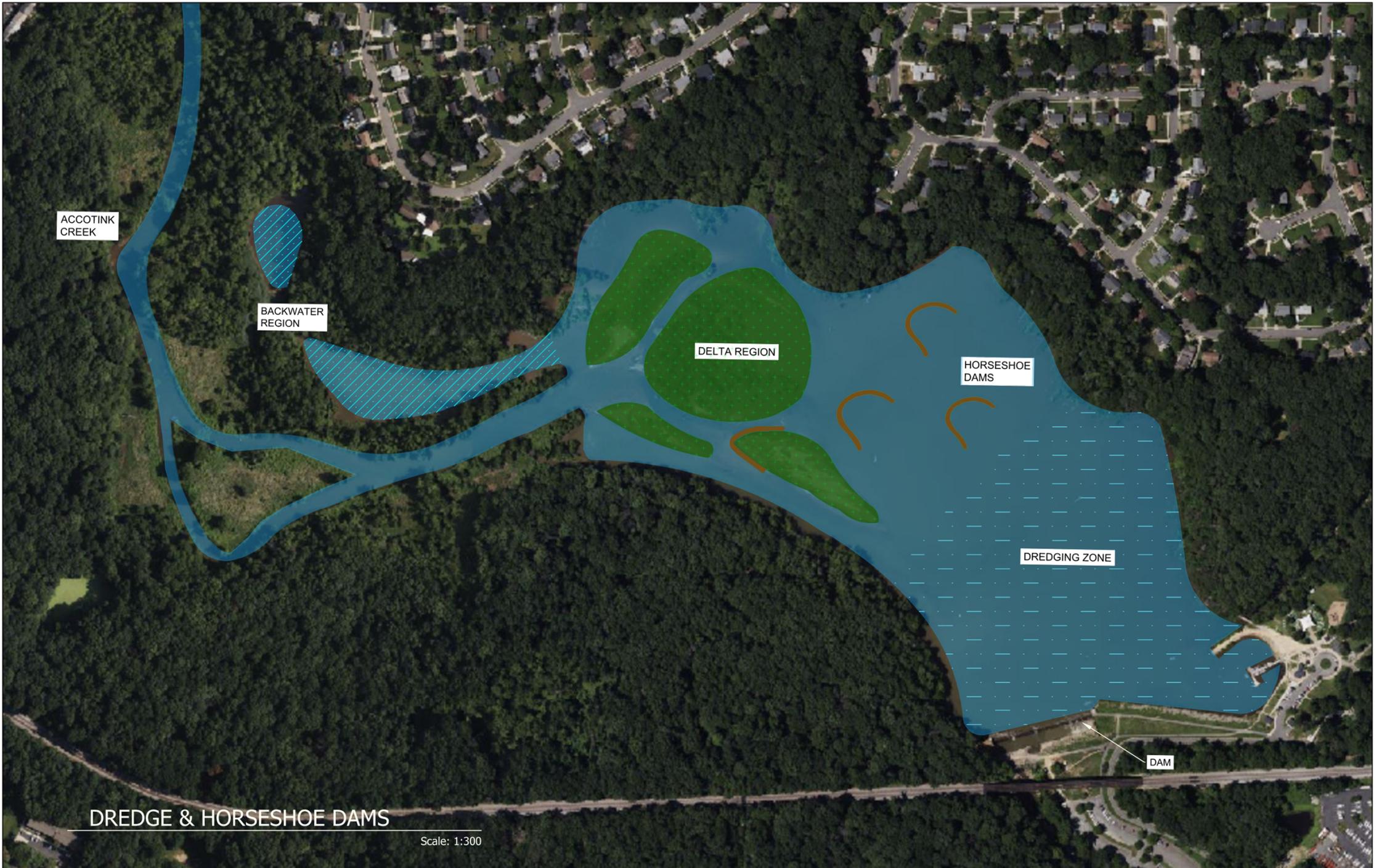
DAM

DREDGE & CREATE DELTA

Scale: 1:300







ACCOTINK
CREEK

BACKWATER
REGION

DELTA REGION

HORSESHOE
DAMS

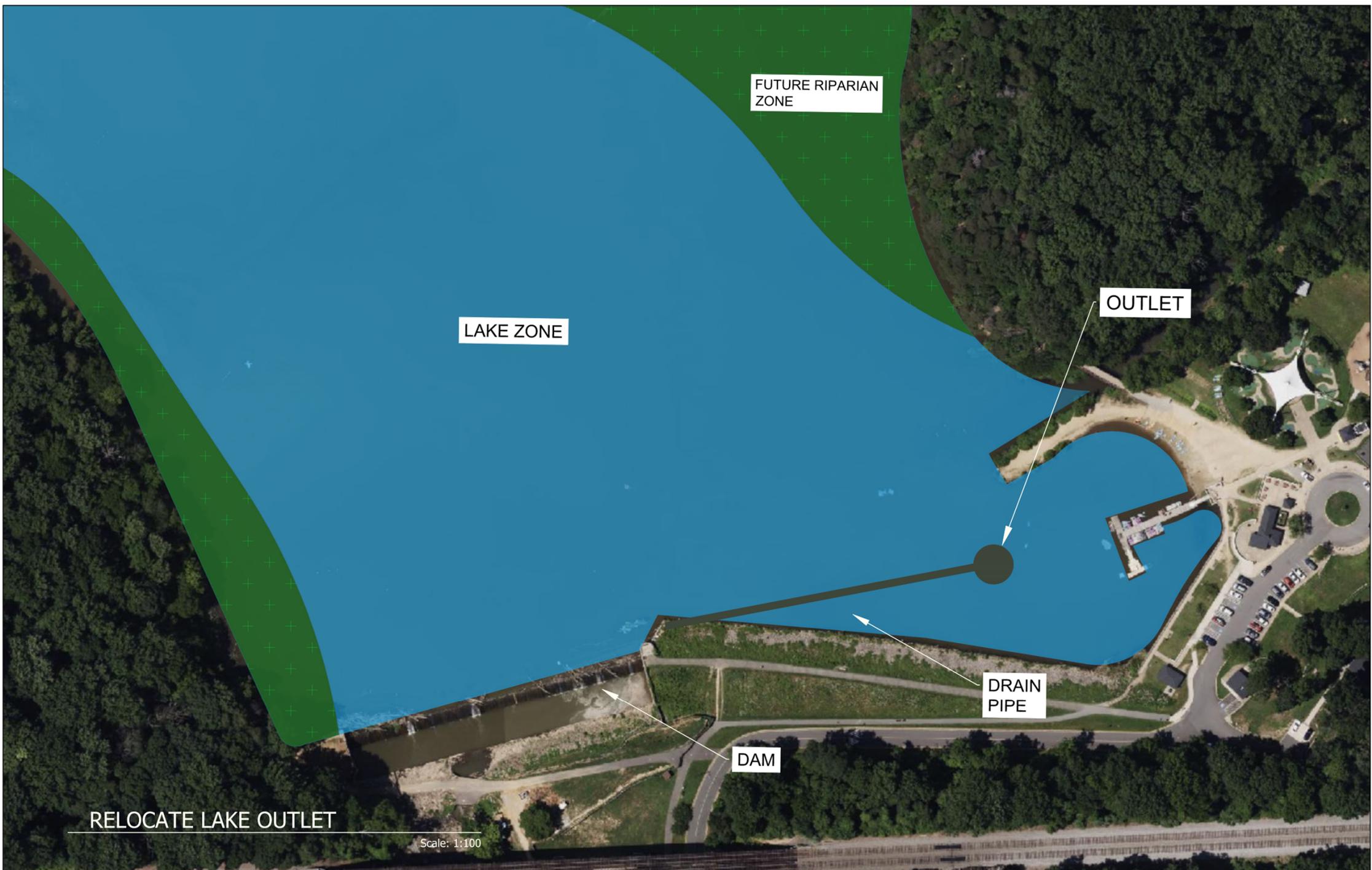
DREDGING ZONE

DAM

DREDGE & HORSESHOE DAMS

Scale: 1:300





FUTURE RIPARIAN ZONE

LAKE ZONE

OUTLET

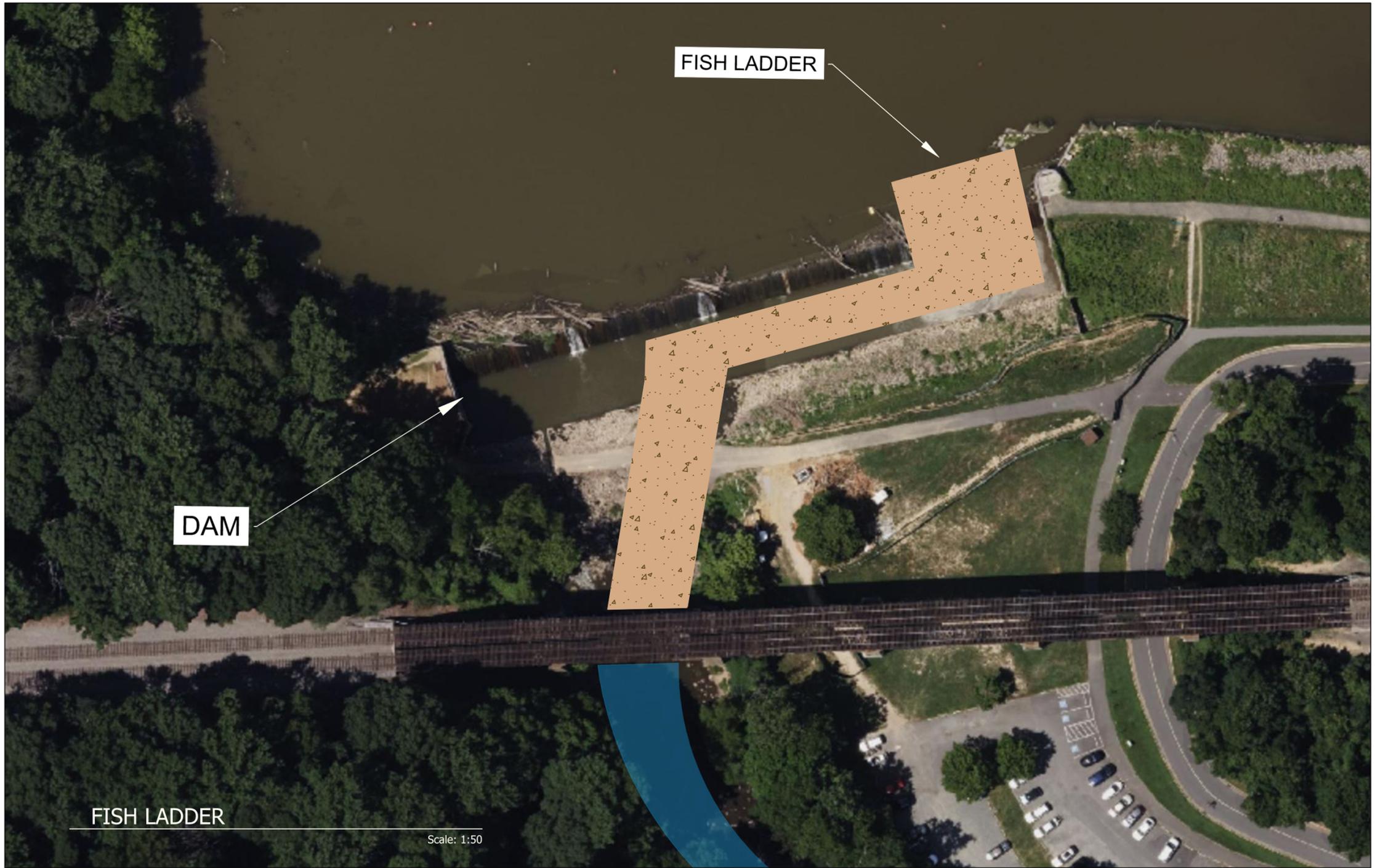
DRAIN PIPE

DAM

RELOCATE LAKE OUTLET

Scale: 1:100





FISH LADDER

DAM

FISH LADDER

Scale: 1:50





4. ACCOTINK DAM

D. How could fish passage be incorporated into dam/lake management options?

