

ARTICLE - PROJECT DESCRIPTION

SOUTH FLORIDA WATER MANAGEMENT DISTRICT TURBIDITY CONTROL FOR SAV RECOVERY IN THE LAKE OKEECHOBEE LITTORAL ZONE 6/25/2024

The submerged aquatic vegetation (SAV) in Lake Okeechobee provides critical habitat for fish and wildlife, stabilizes shoreline sediments, and supports attached algae that help to remove nutrients from the water. Recently, SAV coverage on the lake has been minimal due to high water and turbidity resulting in a need to recover this critical fish and wildlife habitat. The South Florida Water Management District (District) is conducting a pilot study, planned from June 2024 through December 2024, to assess the efficacy of installing temporary turbidity controls can improve water clarity at two study areas along the northwest shoreline of Lake Okeechobee (**Figure 1**) where SAV beds were documented prior to Hurricanes Ian and Nicole to promote SAV recovery. Since SAV coverage is minimal in most other locations on the lake, which may intensify grazing impacts on SAV in the study area, the project will also test for herbivory effects by deploying several exclusion devices (1-2m²).

The two study locations are within the grass-line along the Indian Prairie shoreline, several miles north of the Indian Prairie Canal (**Figures 2 and 3**). Examples of the planned turbidity control equipment are depicted in **Figures 4–6**. The study sites range from approximately 10.5 to 11 ft (NGVD29) in elevation, with water levels likely to vary from roughly 2-5 ft deep during the study period (depending on rainfall and lake stage management). In coordination with USCG, navigation warnings (e.g., caution buoys, temporary signs) will be installed, as deemed necessary. Informational signage will be posted at five boat ramps located at the Indian Prairie Canal, Lock 7, Okee Tantie, Scott Driver Park, and the S-127 Boat Lock in Buckhead (**Figure 7**).

Contact for mariners in case of questions or concerns:

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District contractor, DB Environmental Laboratories, Inc. (DBE), is anticipated to use the following vessels in study locations during setup, monitoring, maintenance, and/or breakdown:

19' Carolina Skiff	FL2017PW
14' Airboat-2309 (black-diamondback)	FL2309MT
14' Airboat (orange-diamondback)	FL5193LC
12' Airboat-9395 (red-custom)	FL9395LC

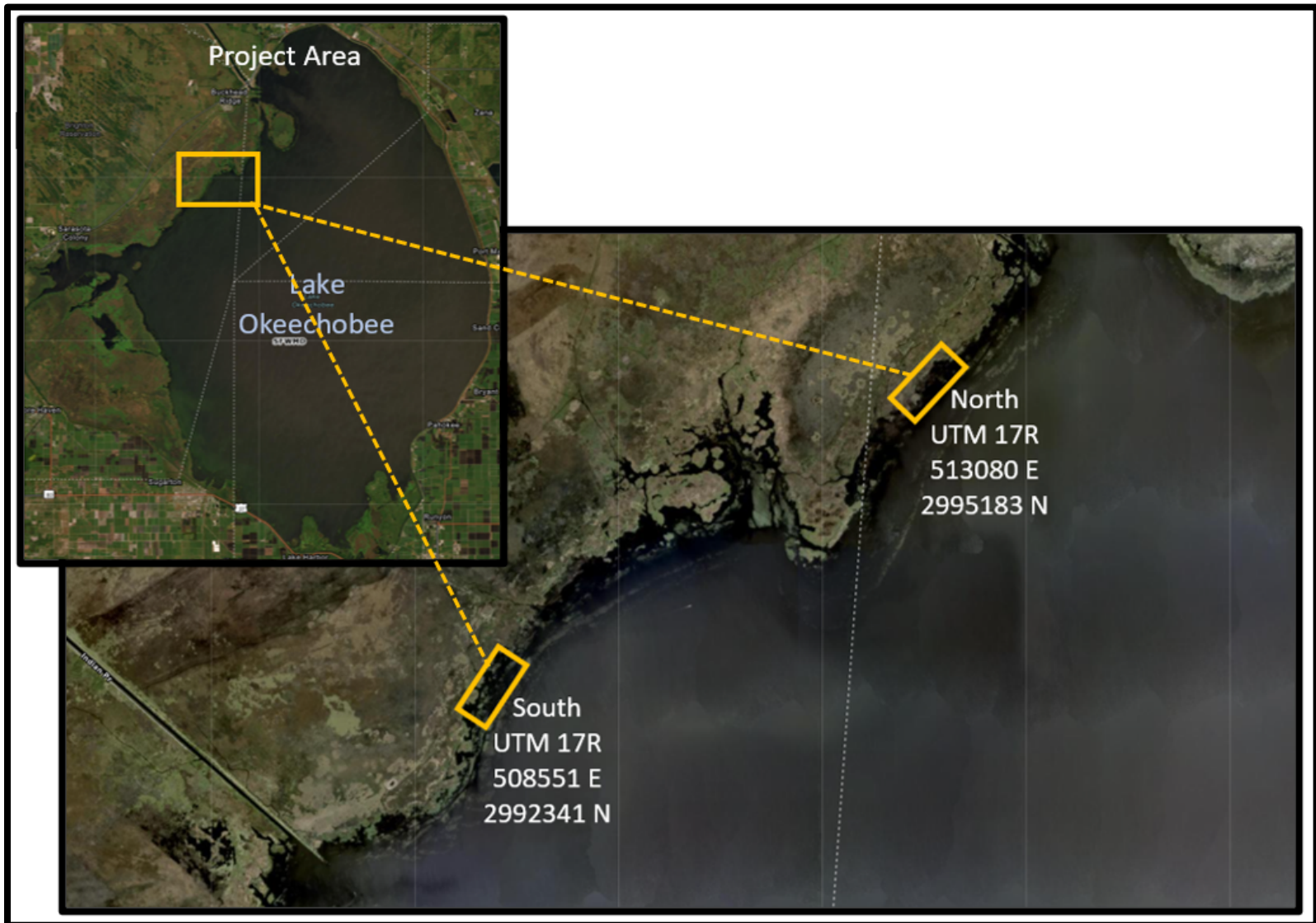


Figure 1. North and South project areas on Lake Okeechobee, as depicted by orange rectangles. Rectangles are approximately 500 m in length. Center coordinates (UTMs) provided on map.

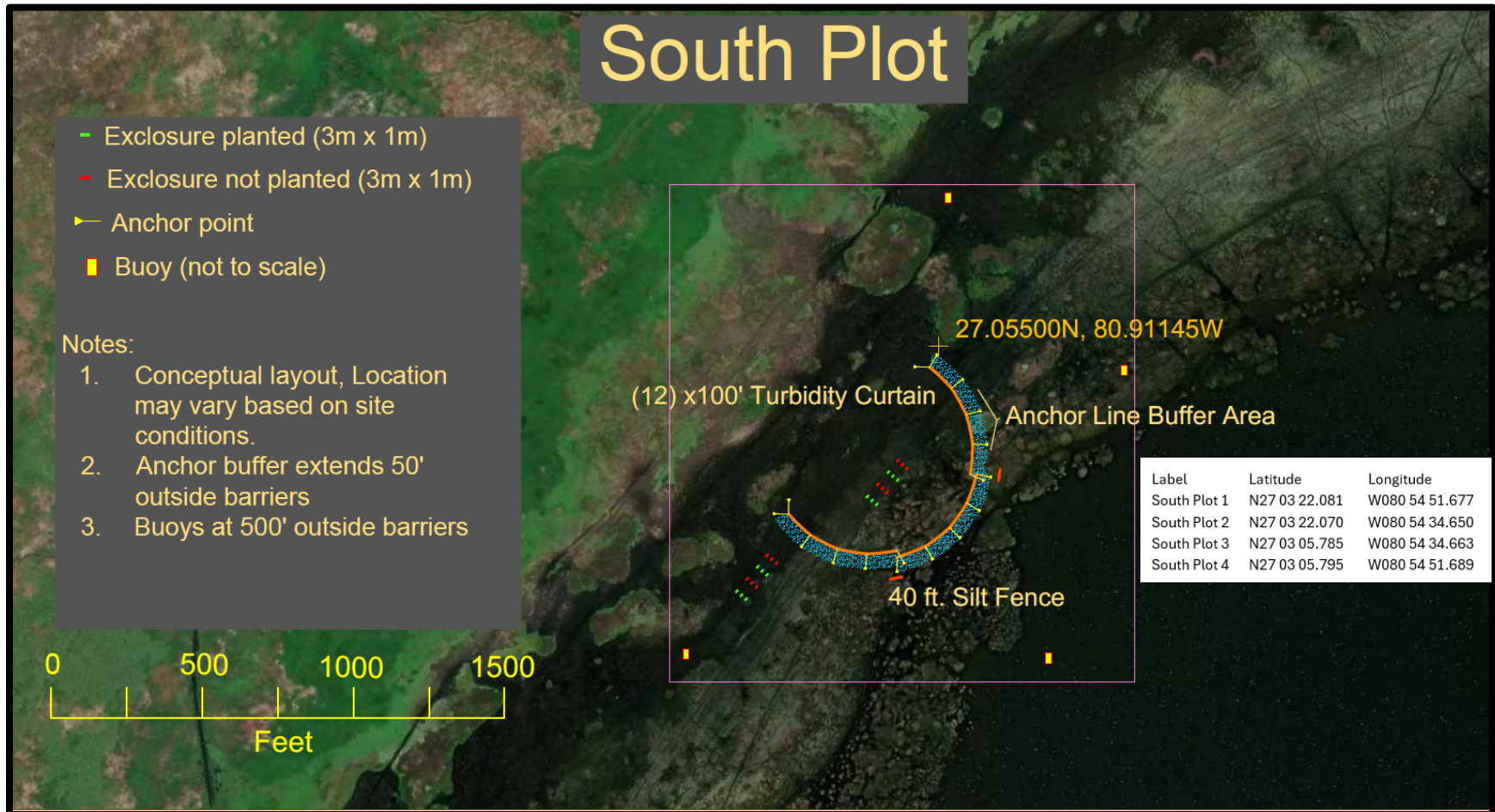


Figure 2. Southern location of the turbidity controls for improving light conditions for SAV recovery (also, see 1 for general map showing this South plot location). Items to scale except the size of the buoys.

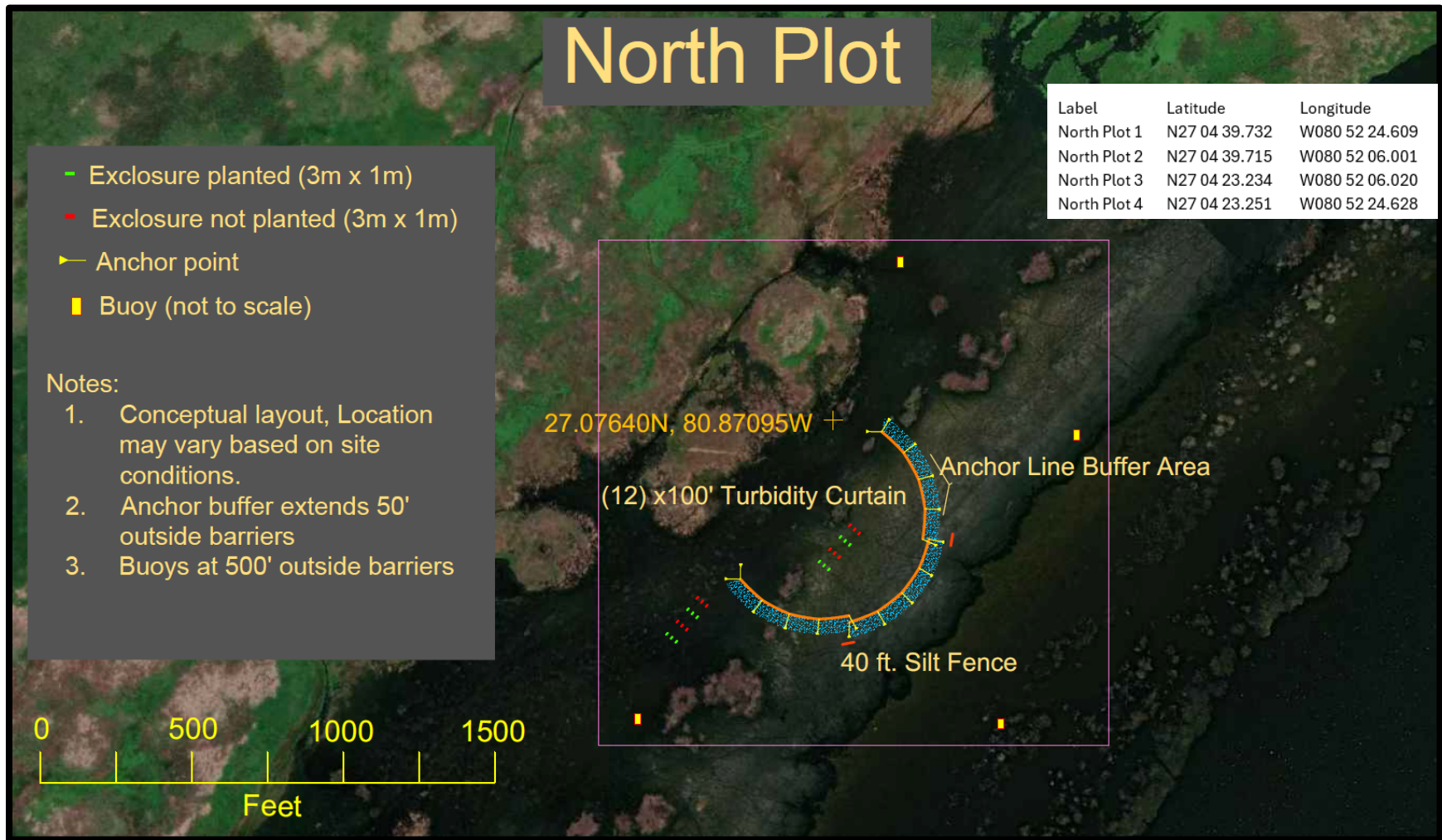


Figure 3. Northern location of the turbidity controls for improving light conditions for SAV recovery (also, see 1 for general map showing this North plot location). Items to scale except the size of the buoys.



Figure 4. Example of turbidity control to be deployed in Lake Okeechobee.

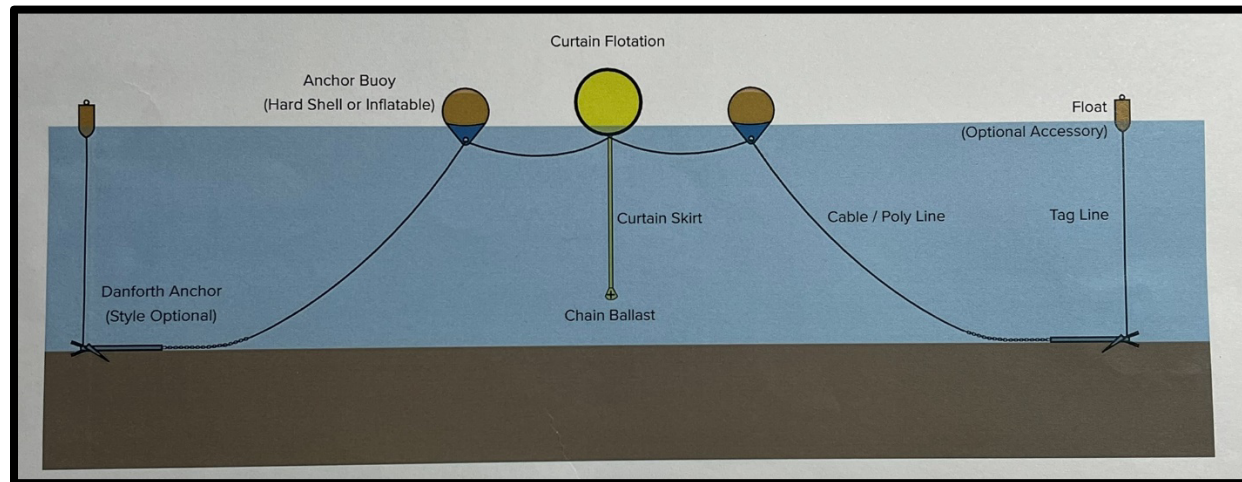


Figure 5. Schematics of curtain, float, anchor and ballast chain configuration for deployment of turbidity control.

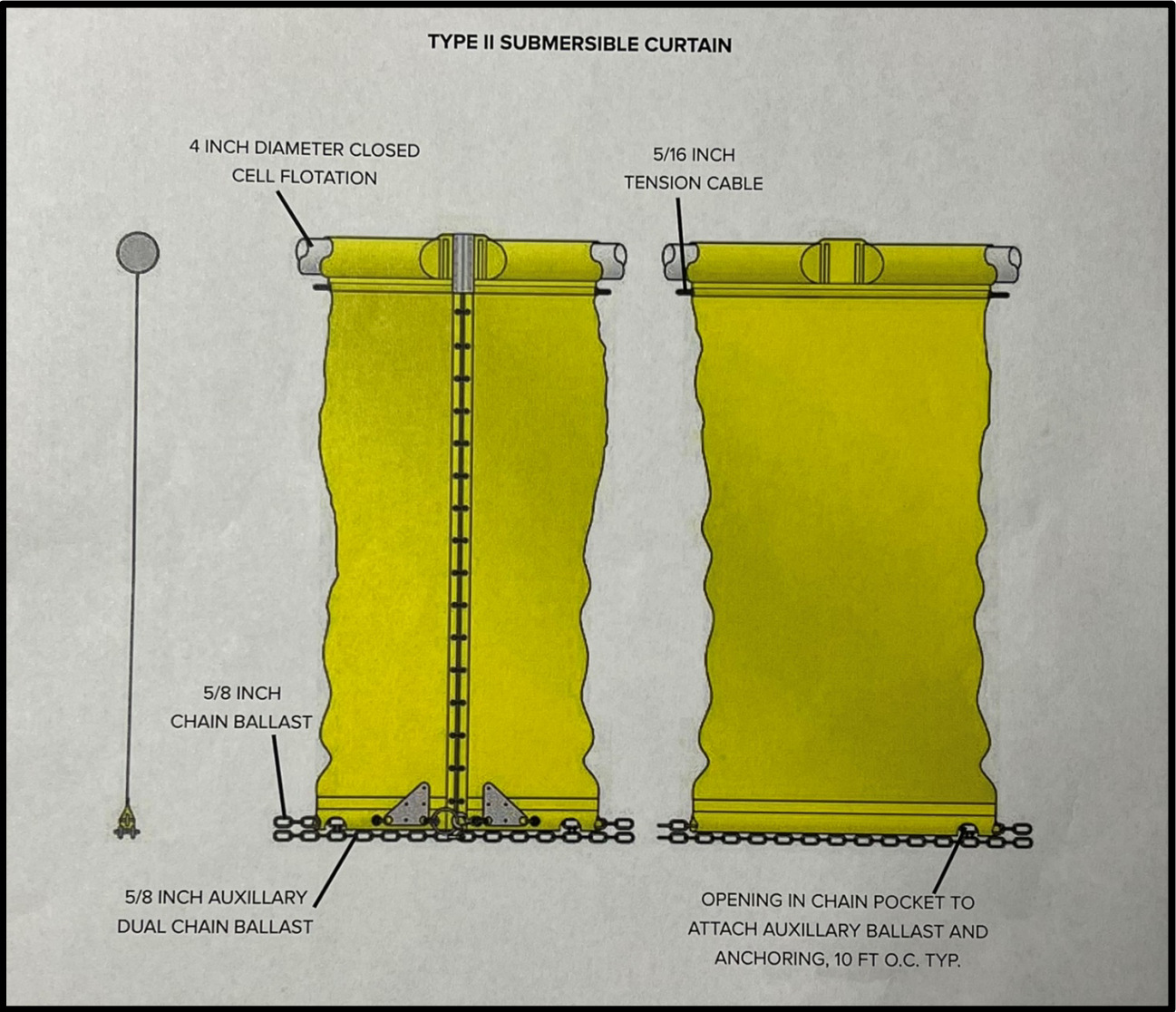
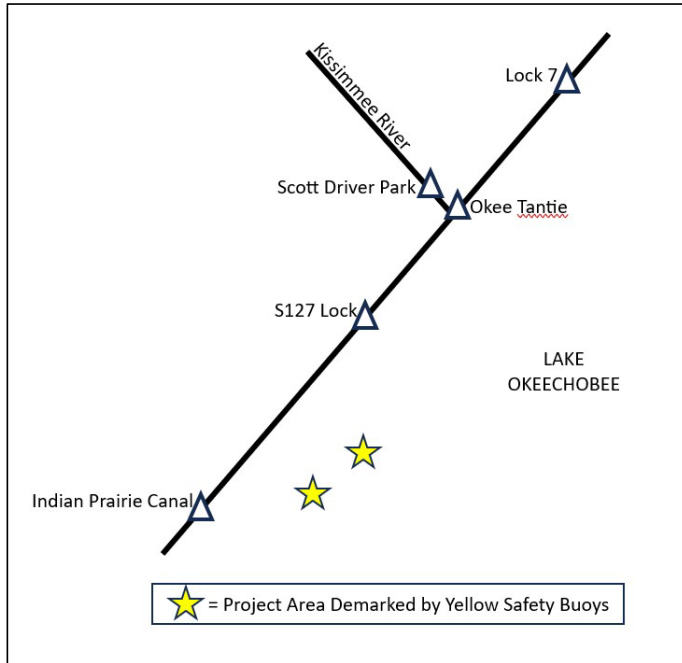


Figure 6. Schematic of turbidity control that extends from lakebed upward toward the water surface.



Turbidity Control for SAV Recovery



Please Avoid Project Area

Healthy submerged aquatic vegetation (SAV) is essential for fish habitat and is damaged by deep, turbid water that prevents light penetration to the lake's bed.

This pilot project aims to clarify water and improve SAV in the lake with temporary floating turbidity controls and submerged SAV protective cages during the SAV growing season.

Two plots, each with 4 yellow safety buoys demarking the project area, are deployed within the littoral zone between the Indian Prairie Canal and the S-127 Lock.

Plots are located at:
27.05500N / 80.91145W
27.07640N / 80.87095W



Controls will be removed in the fall once SAV recovery has been established. Please avoid project area to ensure successful SAV recovery.

For more information, contact the South Florida Water Management District @ 561-682-2039

Sign 1
Size: 36"x 24"
¼" holes at center top and bottom
Black outline border
QTY: 6

Figure 7. Boat ramp signage in the general vicinity of study areas.