



RIVER GROVE PARK

Hydrographic Survey

KINGWOOD
ASSOCIATION MANAGEMENT

HK
DREDGING

River Grove Park

**Location: SPCS (NAD83) (3918729.60, 10010794.83 us-ft), 30° 1.59467' N,
95° 12.35480' W**

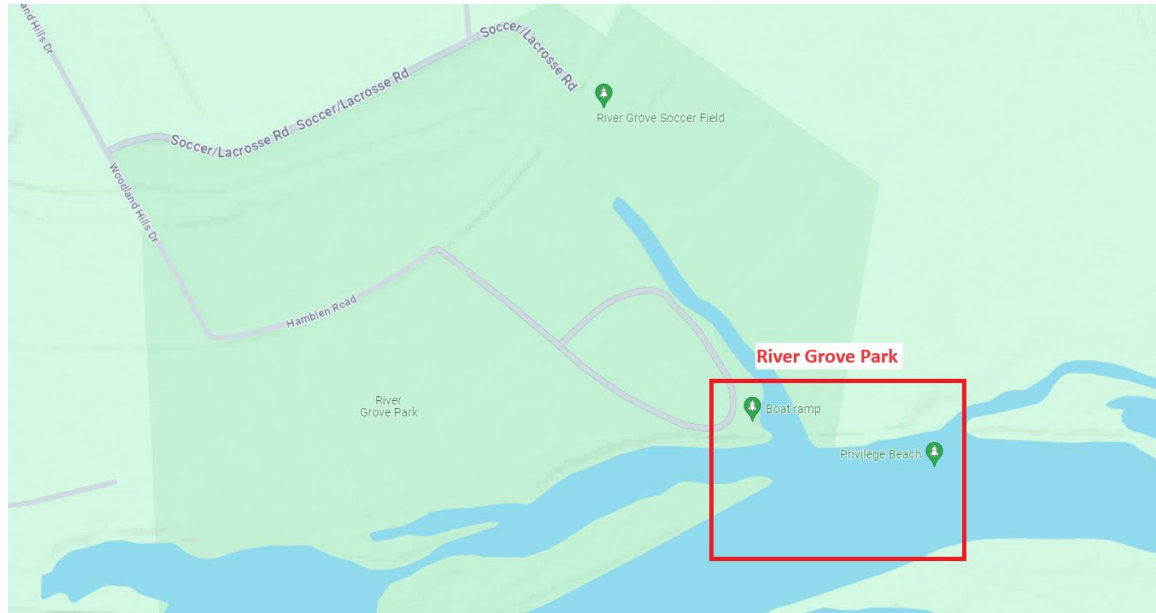


FIGURE 1: PROJECT LOCATION



River Grove Park

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River Grove Park

1 Overview of Survey

Kingwood Association Management requested HK Dredging perform a hydrographic survey at River Grove Park, on the San Jacinto river. The purpose of the survey was to provide data to the association regarding the current depths from the boat ramp (River Grove Park) to the buoy in the river channel. HK Dredging utilized a remote controlled GPS survey vessel equipped with a dual frequency echo sounder; this equipment allowed for the acquisition of data at the river bed. Survey observations at the mudline and at “hard bottom” of the river bed are represented in XYZ format-Easting, Northing and Depth. The Projection used for the Survey is: State Plane Coordinate System(Texas Central, NAD 83, US Feet) EPSG 2277.



FIGURE 2: BATHYCAT SURVEY BOAT

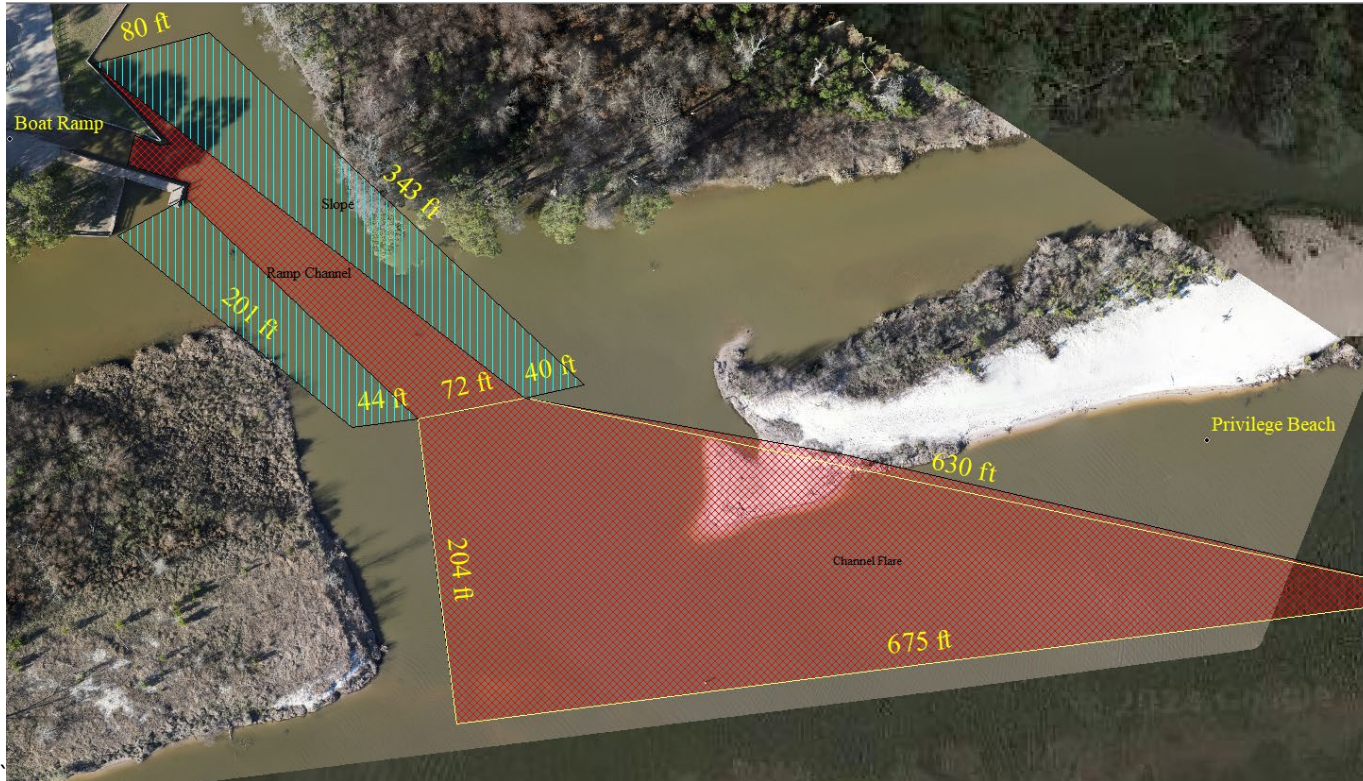


FIGURE 3: PROPOSED AREA DIMENSIONS



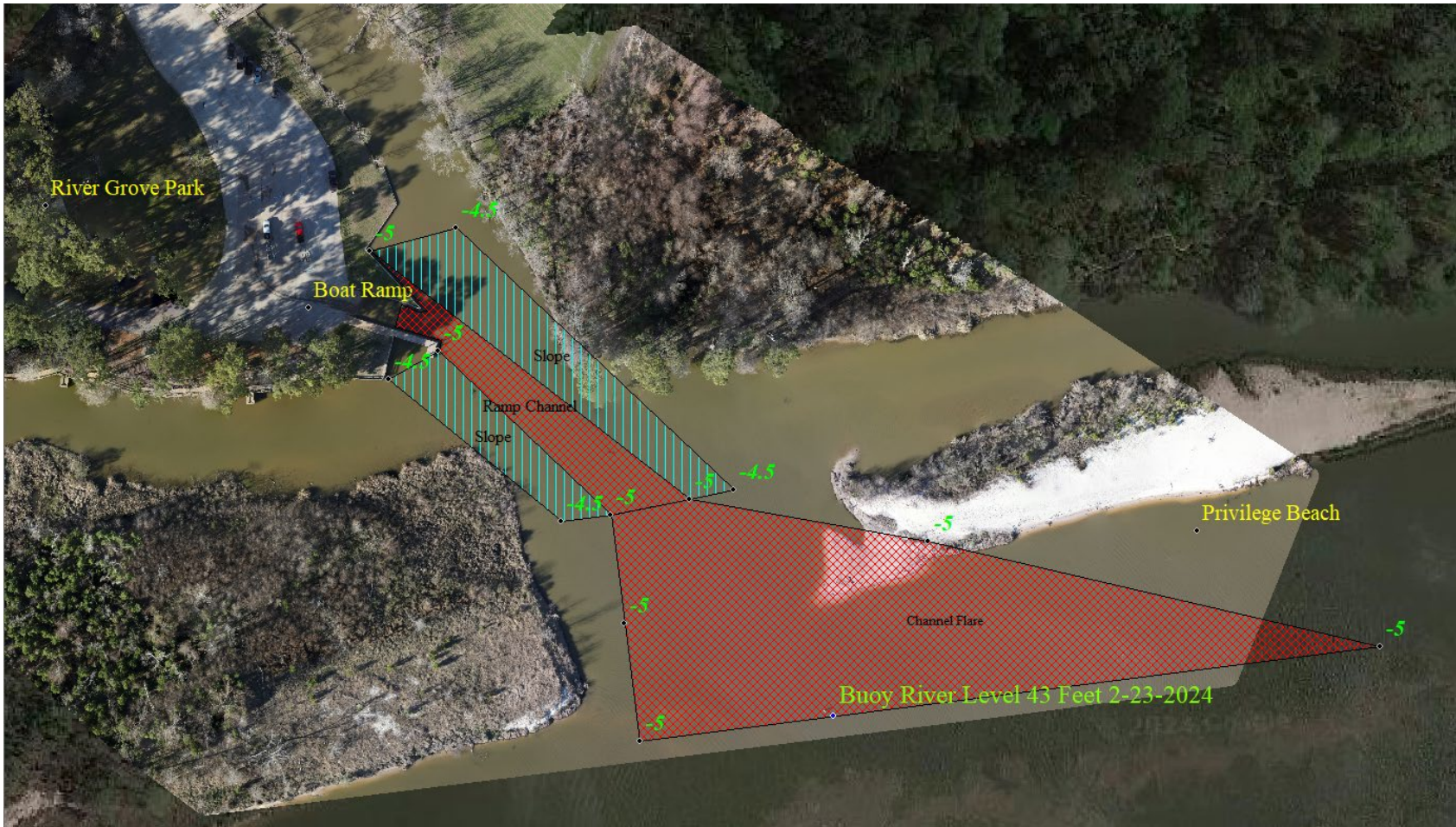
River Grove Park

1.1 Pond Data: Area and Volumes

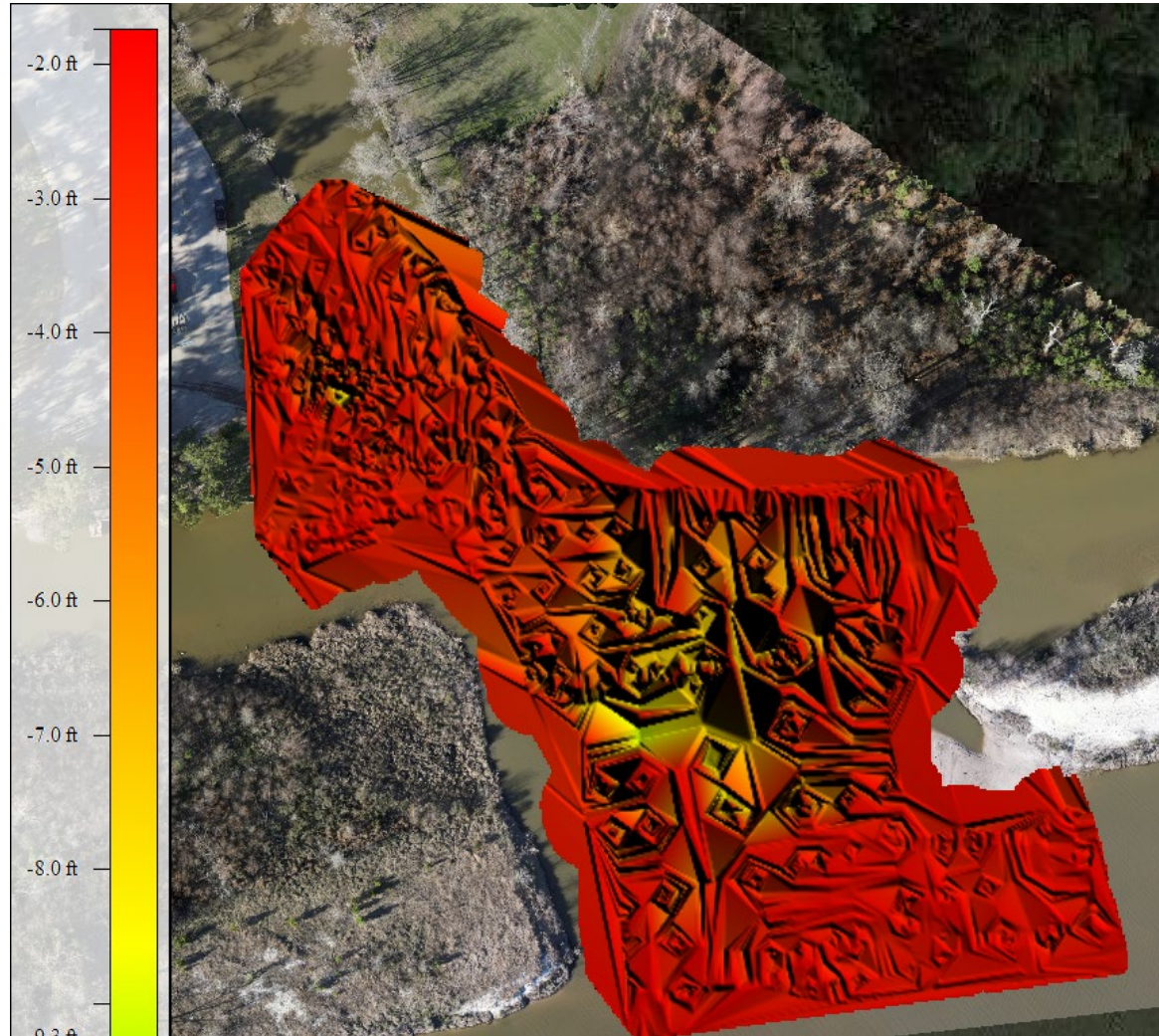
Dogwood (Calculated based on all data points)				
Dredge Area	Perimeter Ft.	Area Sq. Ft.	Acres	Material to be removed
1	8,346	118,553	2.722	11,500

FIGURE 4: DREDGE AREA DATA AND VOLUMES

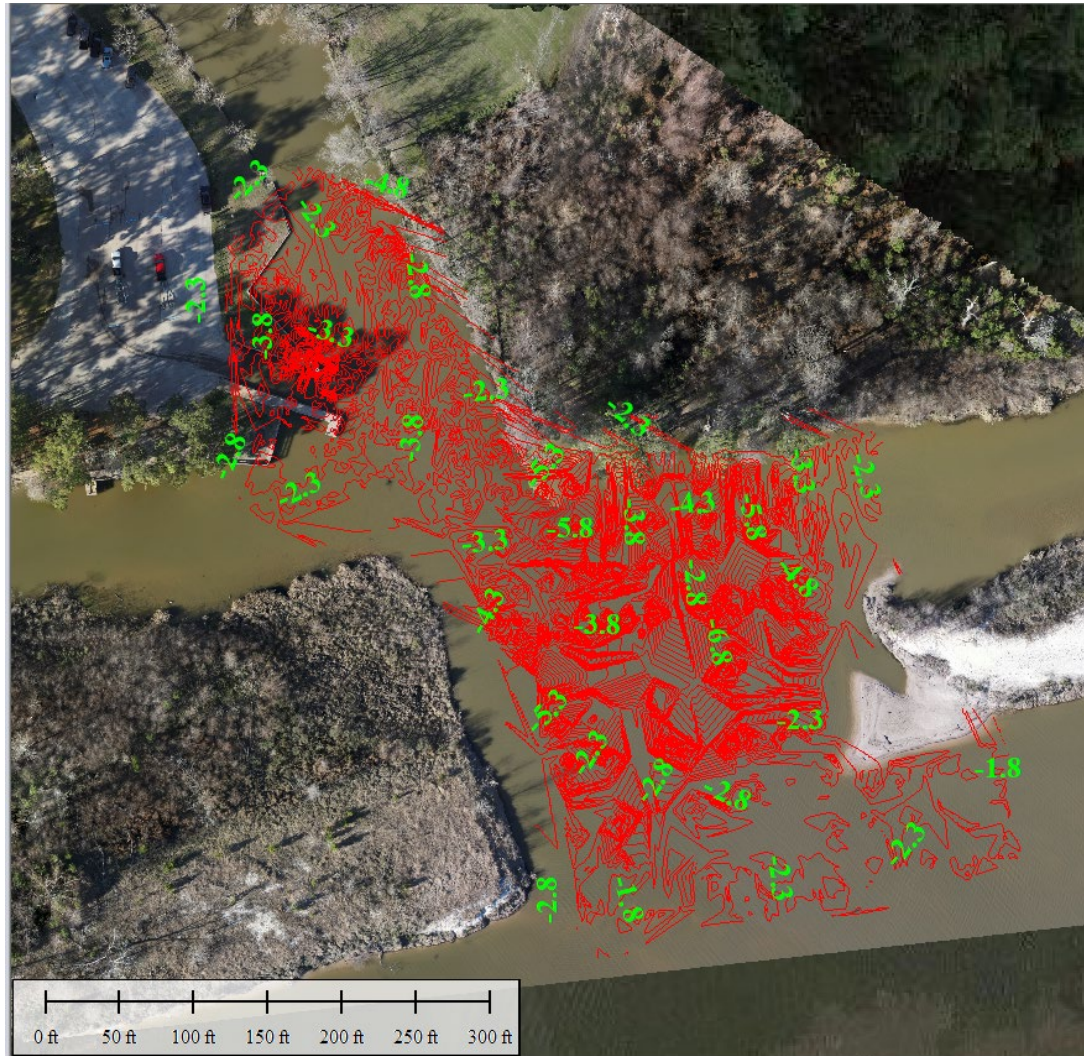
2 Global Mapper Images
2.1 Proposed Dredge Limits



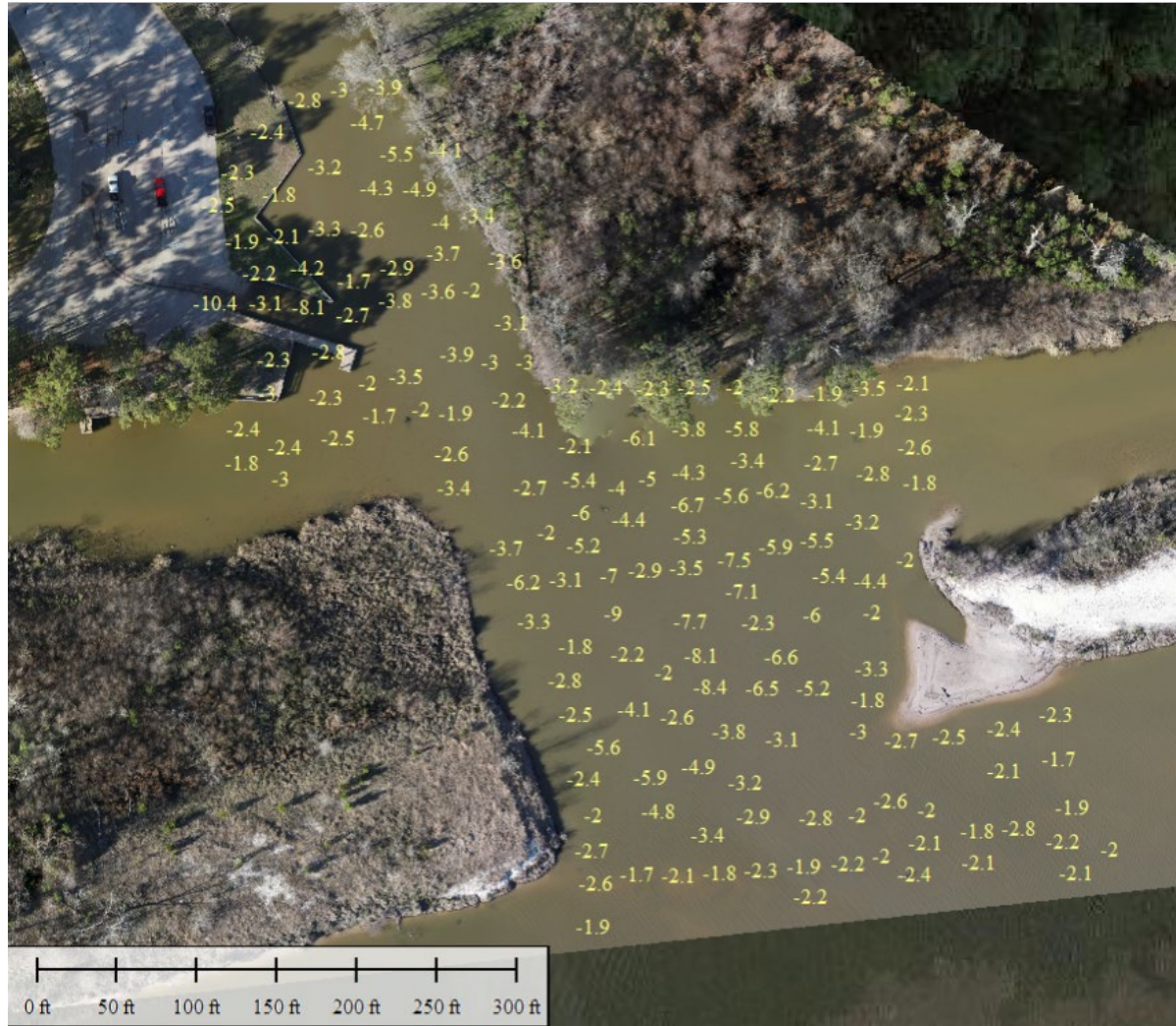
2.2 Surveyed River Bed Elevation Grid



2.3 Surveyed River Bed Contour Map



2.4 Surveyed River Bed Depths



Bathycat Survey Points

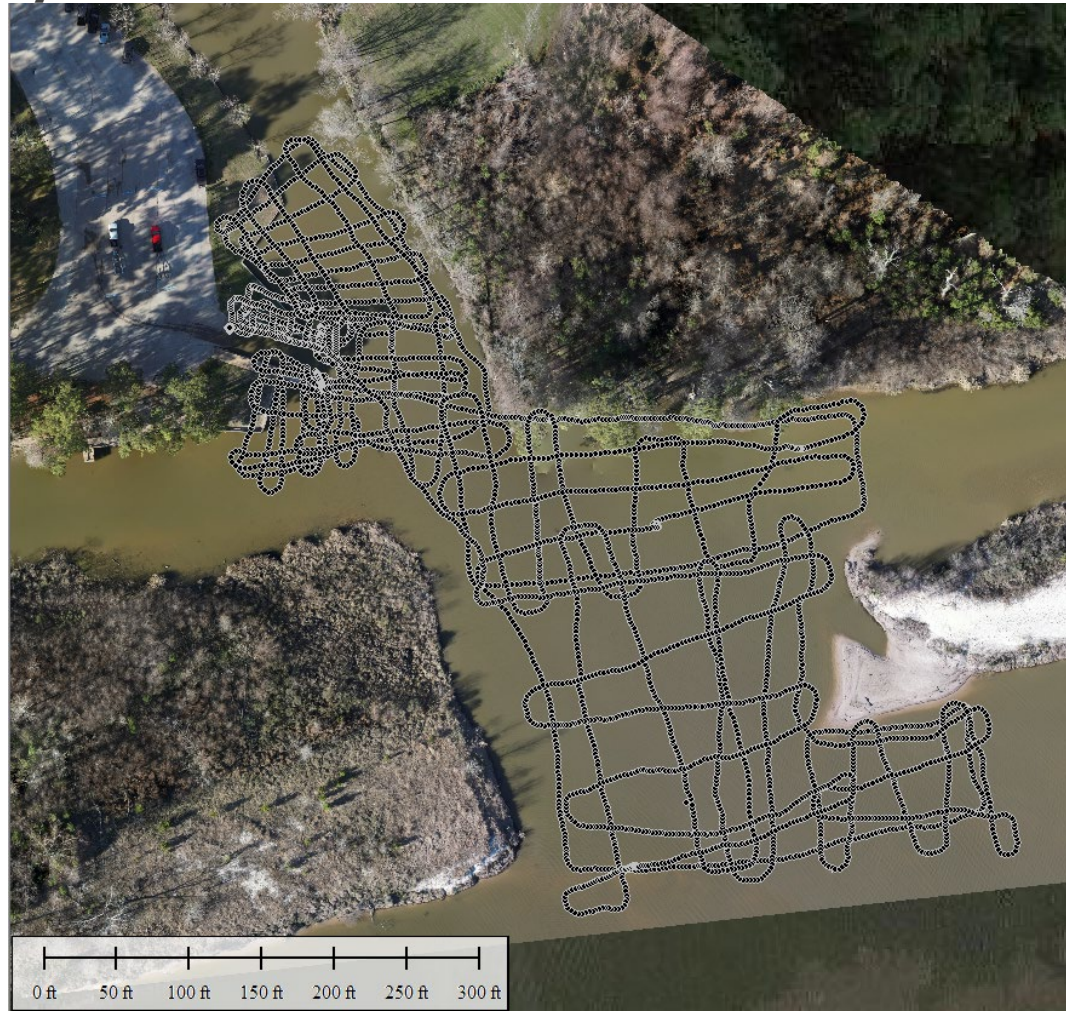


FIGURE 5: BATHYCAT SURVEY POINTS

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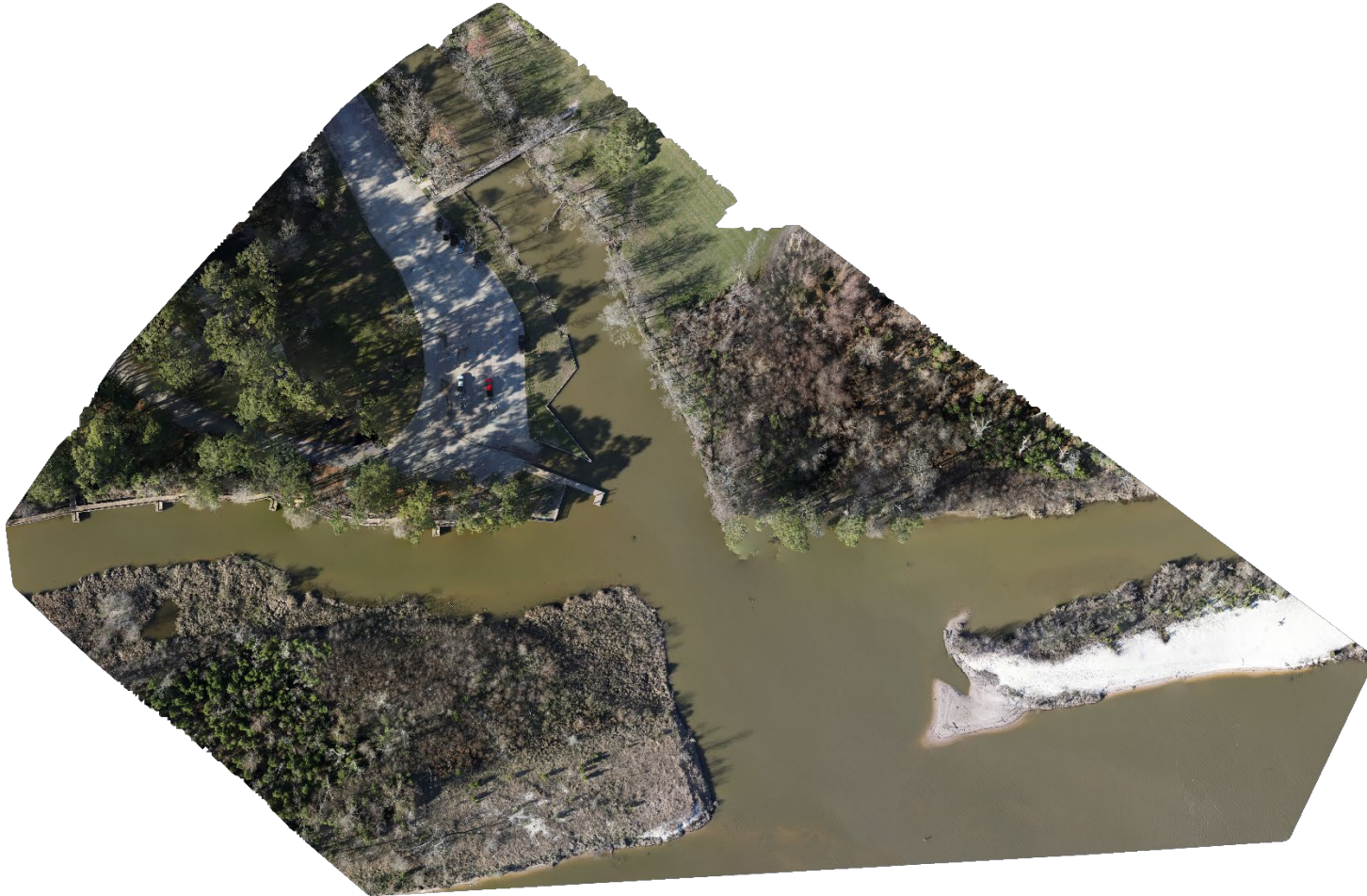


FIGURE 6: DRONE ORTHOPHOTO FEB 2024

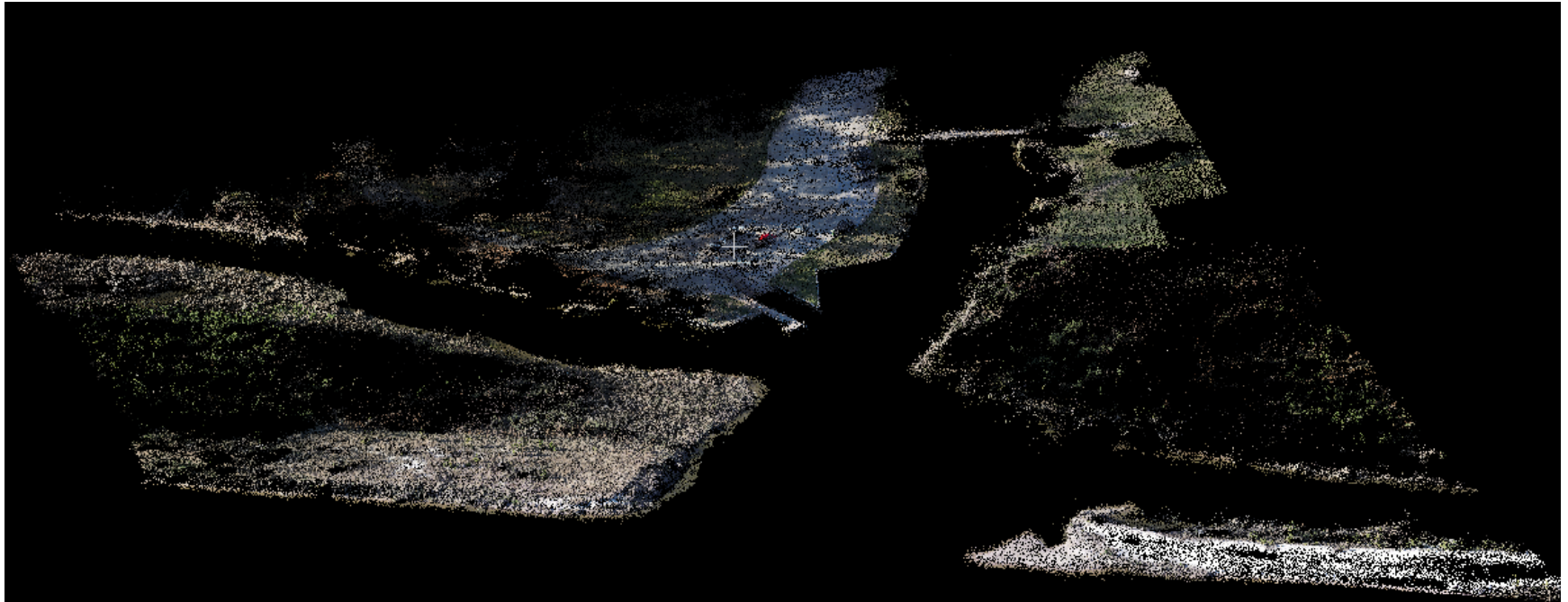


FIGURE 7: 3D MODEL SCREENSHOT