

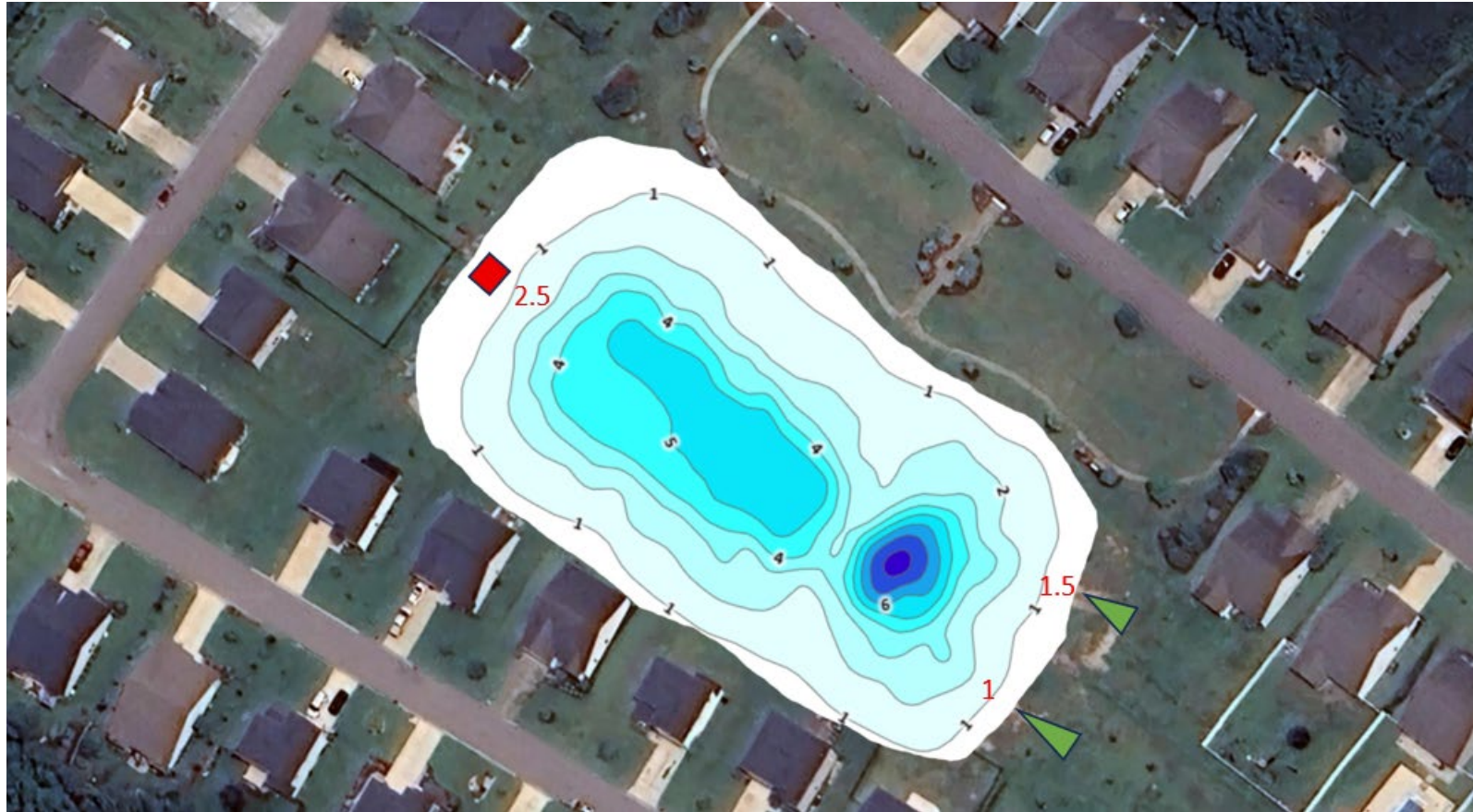
Lighthouse Cove Bathymetry Map

Conducted by High Water Pond Management

Date: 6/4/2025



Bathymetry Map



The bathymetry map represents the depth of the stormwater pond. The darker shades of blue indicate an increase in depth. Each contour line represents a one-foot change in depth.

Key Findings: The forebay pool is significantly deeper than the main pool, indicating there has not been significant sedimentation in the forebay pool.

The forebay berm is still present, although the southwest side is significantly lower than the northeast side. Compare with pond as-built to ensure the dimensions are still as designed.

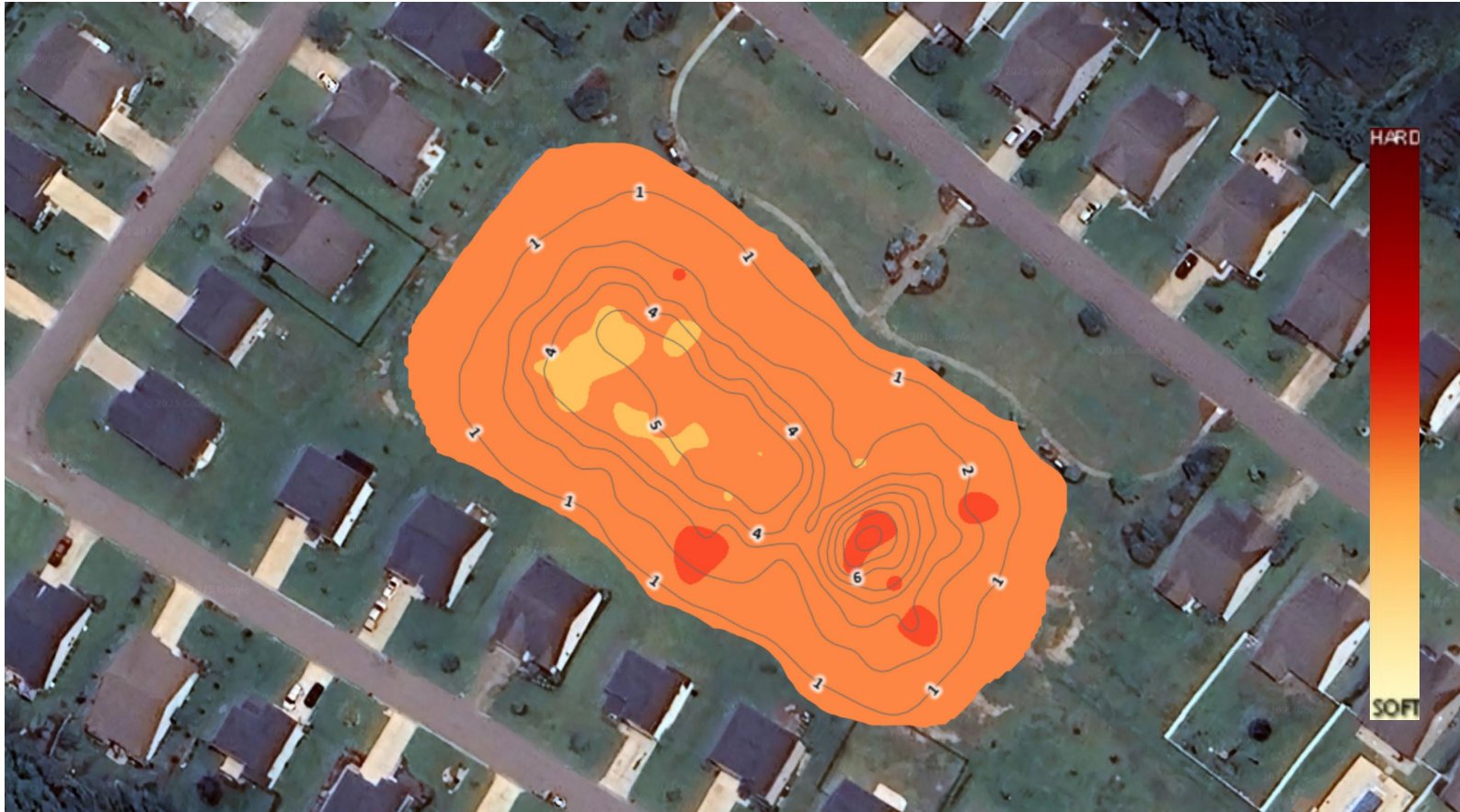
Depth at each inflow is not impacting the functionality.



	Outflow Control Structure
	Inflow Pipe
1,2,3,4.....	Depth at inflow/outflow pipe in ft

Note: Contour lines represent a one-foot depth change. All maps are oriented North.

Sedimentation Map



This sedimentation map illustrates the distribution of sediment on the bottom of the pond. The lighter colors indicate a softer bottom. Softer bottom typically indicates sedimentation. Areas with the lightest shade should be monitored for dredging moving forward.

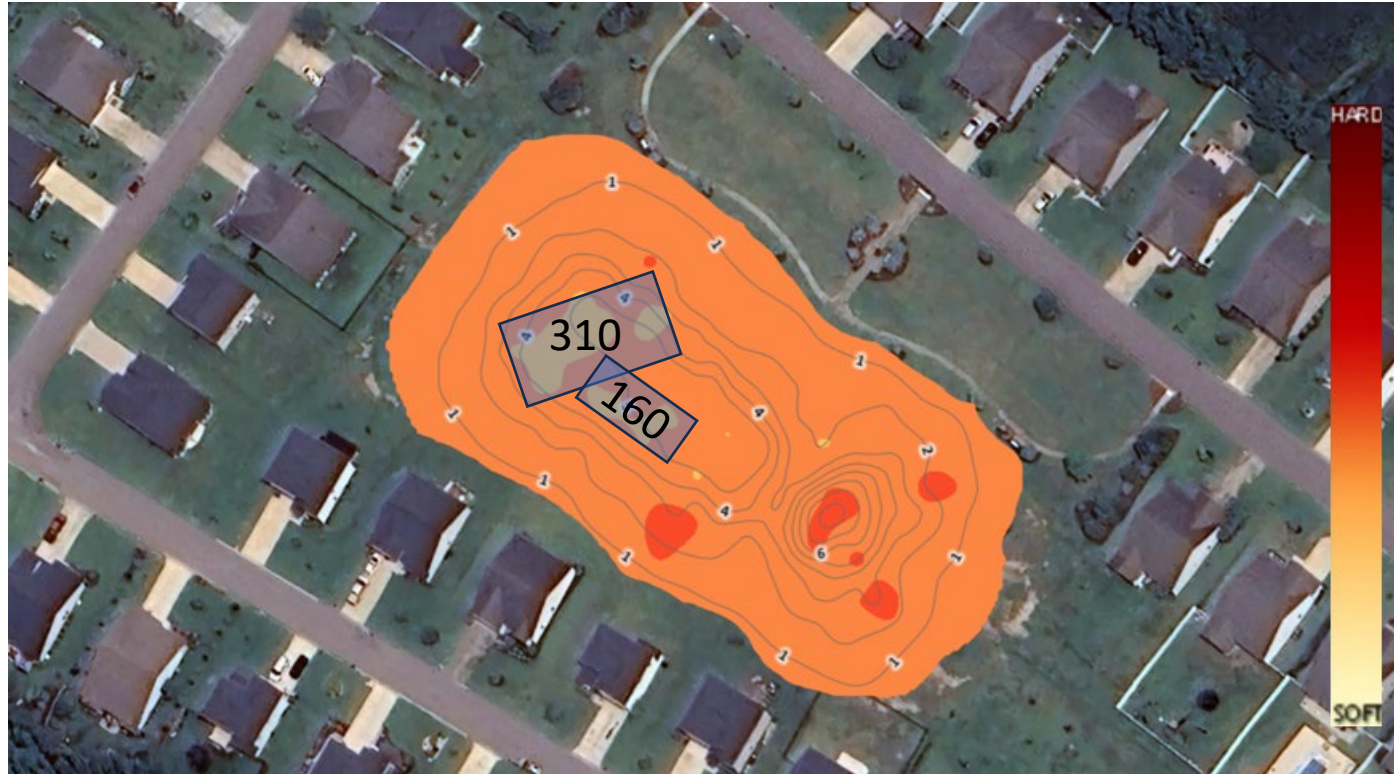
Key Points: The elevated hardness in the forebay around the two inflow pipes is due to the rip-rap aprons below the inflow pipes.

Hardness in the bottom of the forebay indicates low levels of sedimentation in the forebay.

Dredging may be required in the main pool in the future. Monitor and compare with the original depth shown in the as-built.

Note: Contour lines represent a one-foot depth change. All maps are oriented North.

Possible Areas for Dredging



The two areas highlighted in blue represent the two areas that should be monitored for possible dredging in the future. Most of the sediment is collecting at the deepest part of the main pool.

The numbers displayed in the shaded areas represent the approximate number of yards needed to be removed.

With an average sediment depth of a foot and a half, you currently would need to remove approximately 300 cubic yards of material.

Note: Contour lines represent a one-foot depth change. All maps are oriented North.

Summary of Findings

The stormwater pond is currently functional. Neither the inflow pipes nor the outlet control structure is being impacted by sedimentation. A majority of the sediment has collected in the main pool in the deepest area. The sediment collecting in the deepest part of the main pool does not pose a significant risk to the overall function of the stormwater pond at this time.

The sediment levels should be monitored closely moving forward, comparing the depth described in the as-built to the current depth of the pond. If there are significant differences in the as-built depth vs the actual depth, dredging would be required.

Cost: Removing the current sediment would involve hydraulic dredging. The material would then have to be taken off-site to be disposed of. Current approximation for dredging the stormwater pond ranges from \$30,000-\$50,000