

# 2019 Harris Lake Submerged Aquatic Vegetation Survey

## NC Division of Water Resources

### Methods

The NC Division of Water Resources' Aquatic Weed Control Program (AWCP) completed a full-lake survey September 11<sup>th</sup>-13<sup>th</sup>, September 24<sup>th</sup>-25<sup>th</sup> and October 3<sup>rd</sup>. Three rake tosses were conducted at pre-determined points along the shoreline to determine presence/absence as well as quantify rake coverage. Additionally, a recording fathometer (SONAR) was used to map and record the bottom. The SONAR data was uploaded to a third-party company, Biobase, to quantify the depth and biovolume, a percentage of the water column taken up by vegetation when vegetation exists, data. All of this was then combined with the rake-toss data using GIS software to estimate coverage.

### Results

A total of 149 points were sampled. There were 9 points that were not accessible due to low water level that were sampled in 2018. Of those 149 points, Hydrilla, *Hydrilla verticillata*, was not present on any of the rake tosses (Figure 1). In contrast, the 2018 survey found 45 points out of 152, or 30%, contained Hydrilla. Since there was no Hydrilla detected on the rake tosses, the overall coverage of Hydrilla decreased from 232 acres in 2018 to 0 acres in 2019. There was no other SAV observed during the survey. However, the cyanobacteria Lyngbya, *Lyngbya wollei*, was observed. It was present at 9 of the 149, or 6%, rake toss sites (Figure 2). This is a significant decrease from 2018 where it was present at 48 of the 152, or 32%, rake toss sites. The coverage of Lyngbya decreased from 178 acres in 2018 to 5.5 acres in 2019. Additionally, other emergent and floating vegetation present was Giant Cutgrass (*Zizaniopsis miliacea*), Cattail (*Typha domingensis*), Water Willow (*Justicia Americana*), Alligatorweed (*Alternanthera philoxeroides*), Creeping Water Primrose (*Ludwigia grandiflora*), American Lotus (*Nelumbo lutea*) and Fragrant Water Lily (*Nymphaea odorata*). Anecdotally, American Lotus was not as abundant as it was during the 2018 survey.

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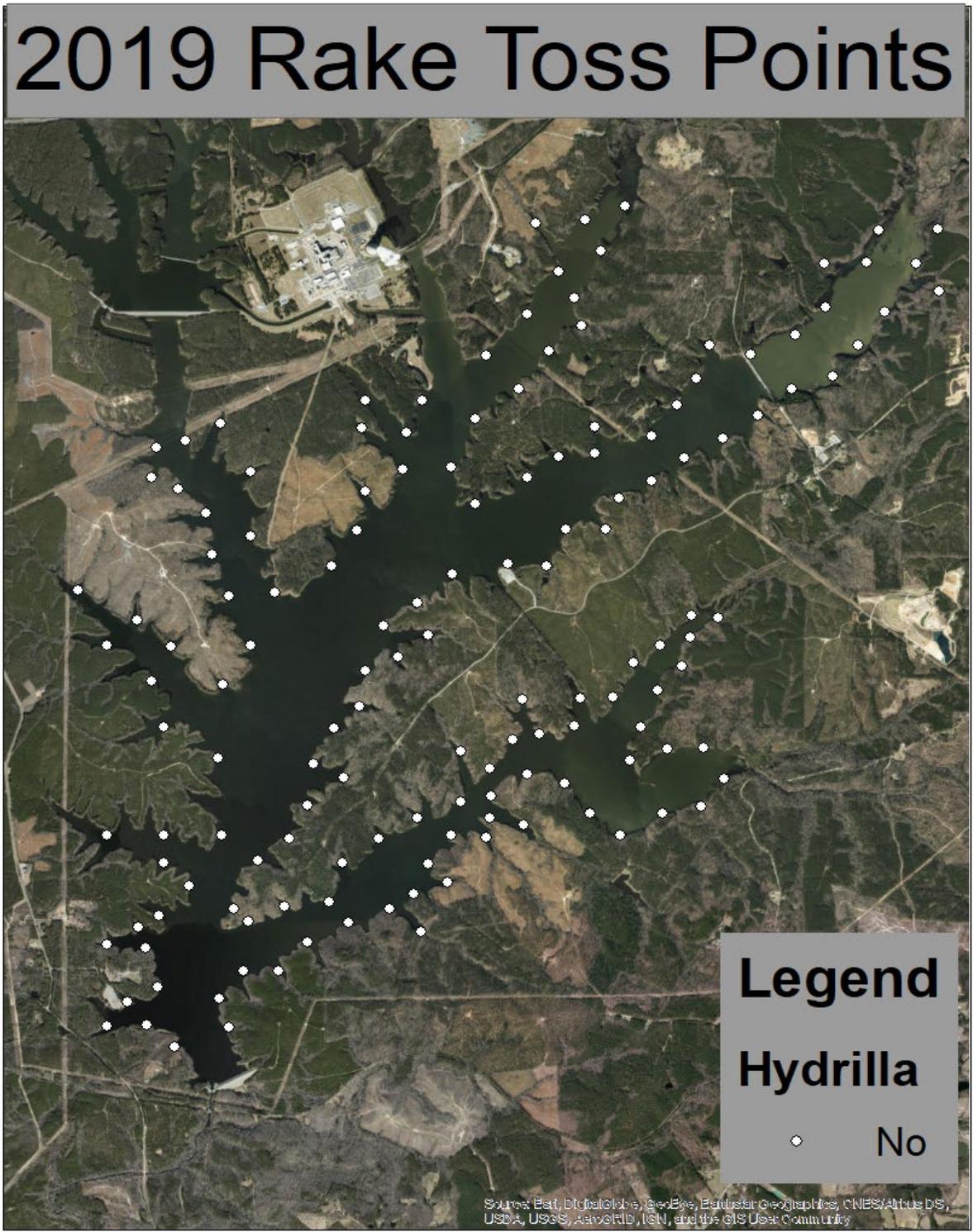


Figure 1. Rake Toss Points showing presence/absence of Hydrilla.

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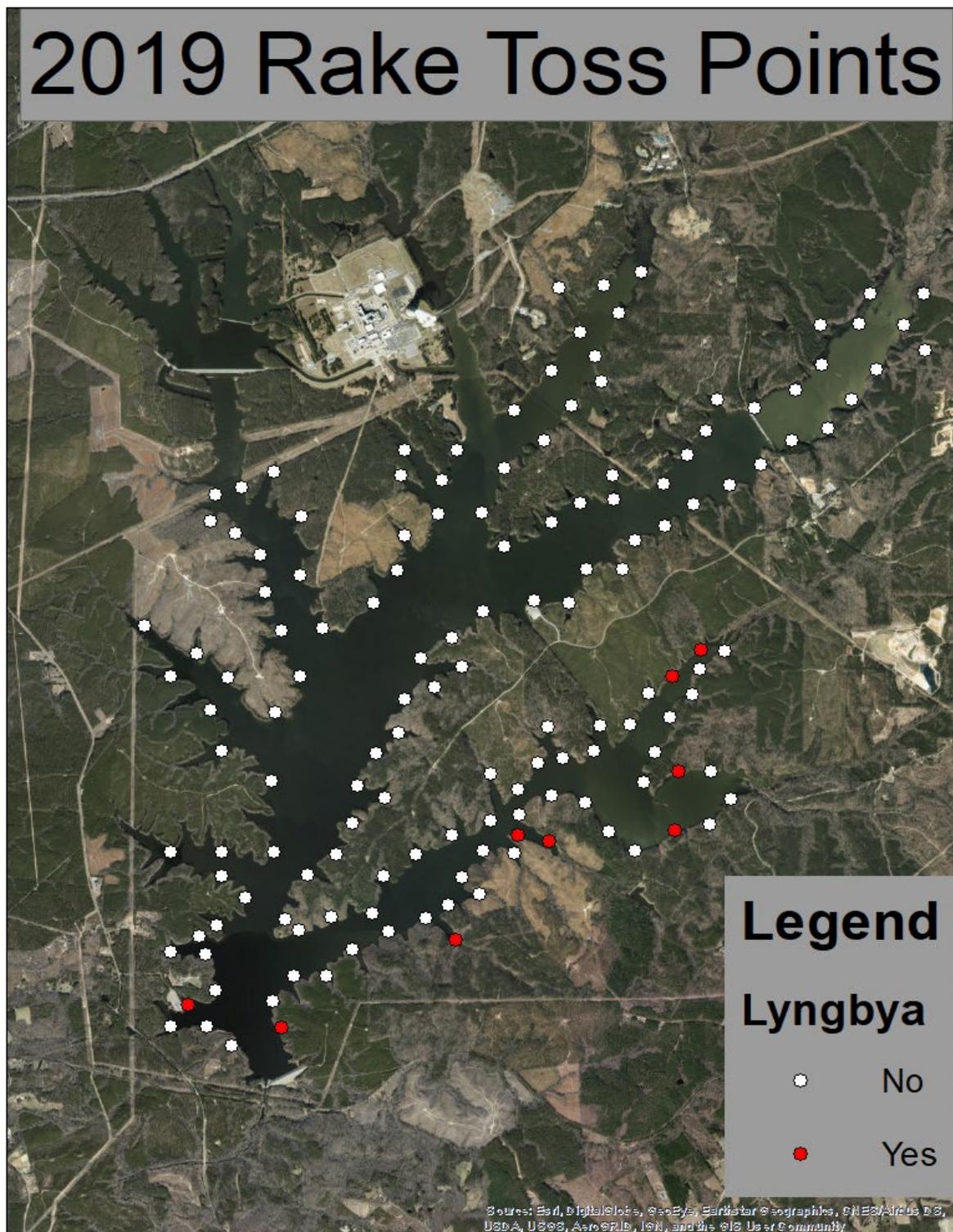


Figure 2. Rake Toss Points showing presence/absence of Lyngbya.

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Figure 3. Map showing coverage of Lyngbya (5.5 acres).