

# 2020 Mintz Pond Submerged Aquatic Vegetation Survey

## NC Division of Water Resources

### Introduction

Hydrilla, (*Hydrilla verticillata*), is one of the most economically and ecologically damaging invasive plants in the world and can lead to many undesirable outcomes. These include the forming of dense monocultures that crowd out native vegetation, reducing the habitat quantity and quality for aquatic organisms, clogging of municipal water intakes and severely impacting recreational activities such as boating and swimming. For these reasons, it is considered a federal and state noxious weed which prohibits the import, sale and movement of Hydrilla without a permit. Hydrilla was first reported in Mintz Pond in 2011. Since then the Aquatic Weed Program (AWCP) and Fayetteville Public Works Commission (PWC) have worked together to manage Hydrilla. More information concerning past management activities can be found on the AWCP online database ([NCDEQ-DWR :: Aquatic Weed Control \(ncwater.org\)](https://ncdeq-dwr.gov/AquaticWeedControl)).

### Methods

Three rake tosses were conducted at pre-determined points throughout the lake to determine presence/absence of SAV 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 data. Biovolume is a percentage of the water column taken up by vegetation, when vegetation is present. All of this was then combined with the rake-toss data using GIS software to estimate coverage. The survey of Mintz Pond was completed on 11/6. Approximately 3 miles of sonar tracks were logged.

### Results

A total of 24 points were sampled during the 2020 survey. Hydrilla was found at 18, or 75%, of the sampled points (Figure 1). The other dominant SAV found during the survey was Sandhills Milfoil (*Myriophyllum laxum*). It was found at 19, or 79%, of the sampled points (Figure 2). These two species were found intermixed in much of the lake. The overall coverage of Hydrilla is 8 acres and the overall estimated coverage of Sandhills Milfoil is 7.5 acres (Figures 3 and 4). They were found intermixed in roughly 4.3 acres (Figure 5). Bladderwort (*Utricularia spp.*) was also found during the survey in low densities. It was found at 4, or 16%, of the survey points (Figure 6). Additionally, of those four points only two of them were found above trace levels. The only other SAV found during the survey was Pondweed (*Potamogeton spp.*). It was found at trace levels at 1 of the survey points (Figure 7). The macroalgae Nitella (*Nitella spp.*) was also found during the survey. It was found at 3, or 13%, of the points (Figure 8). Watershield (*Brasenia schreberi*) was also found growing in much of the northern end of the lake. Waterpod (*Hydrolea spp.*) and Alligatorweed (*Alternanthera philoxeroides*) were also observed growing along the shoreline at the southern end of the lake.

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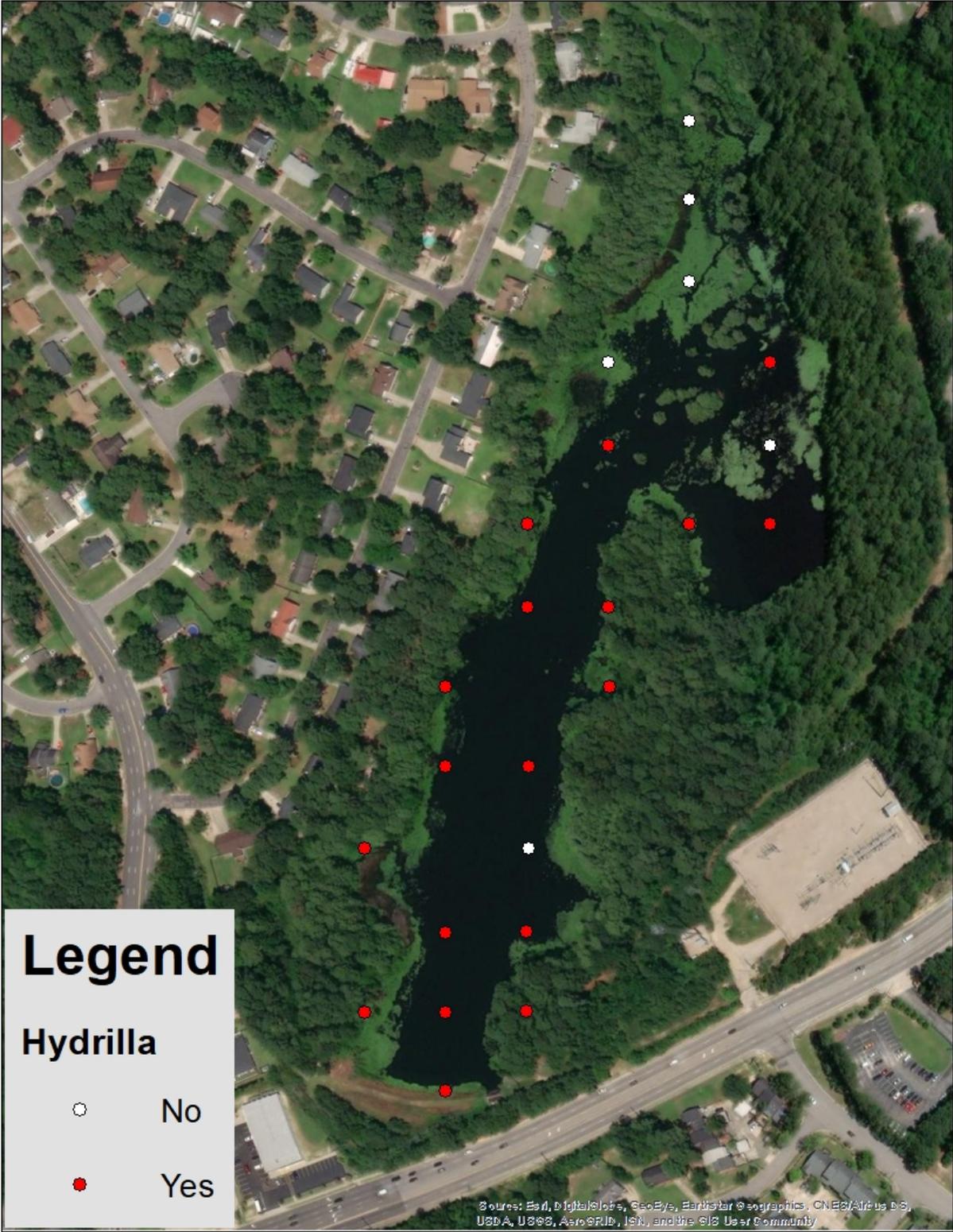


Figure 1. Map showing presence/absence of Hydrilla.

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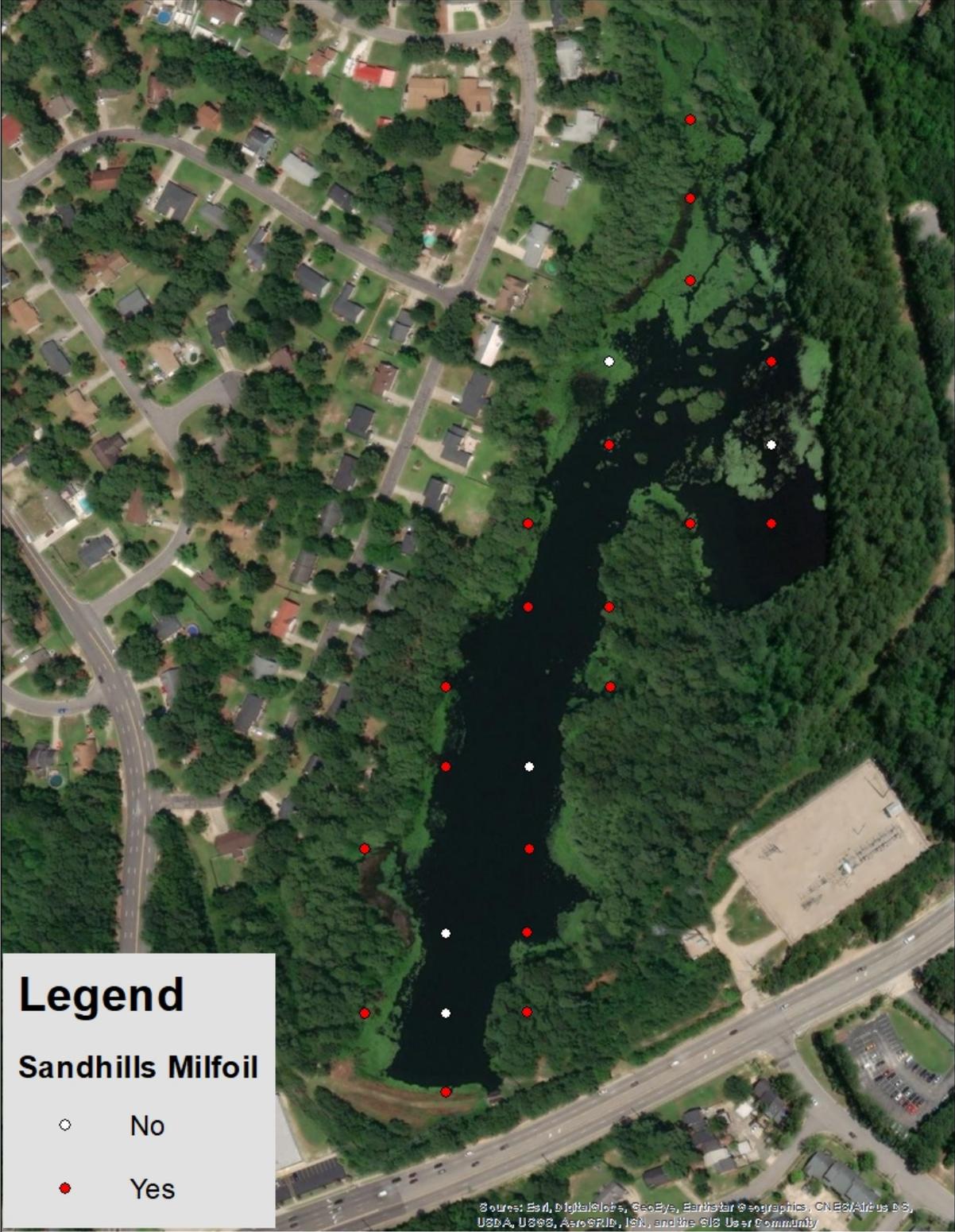


Figure 2. Map showing presence/absence of Sandhills Milfoil.

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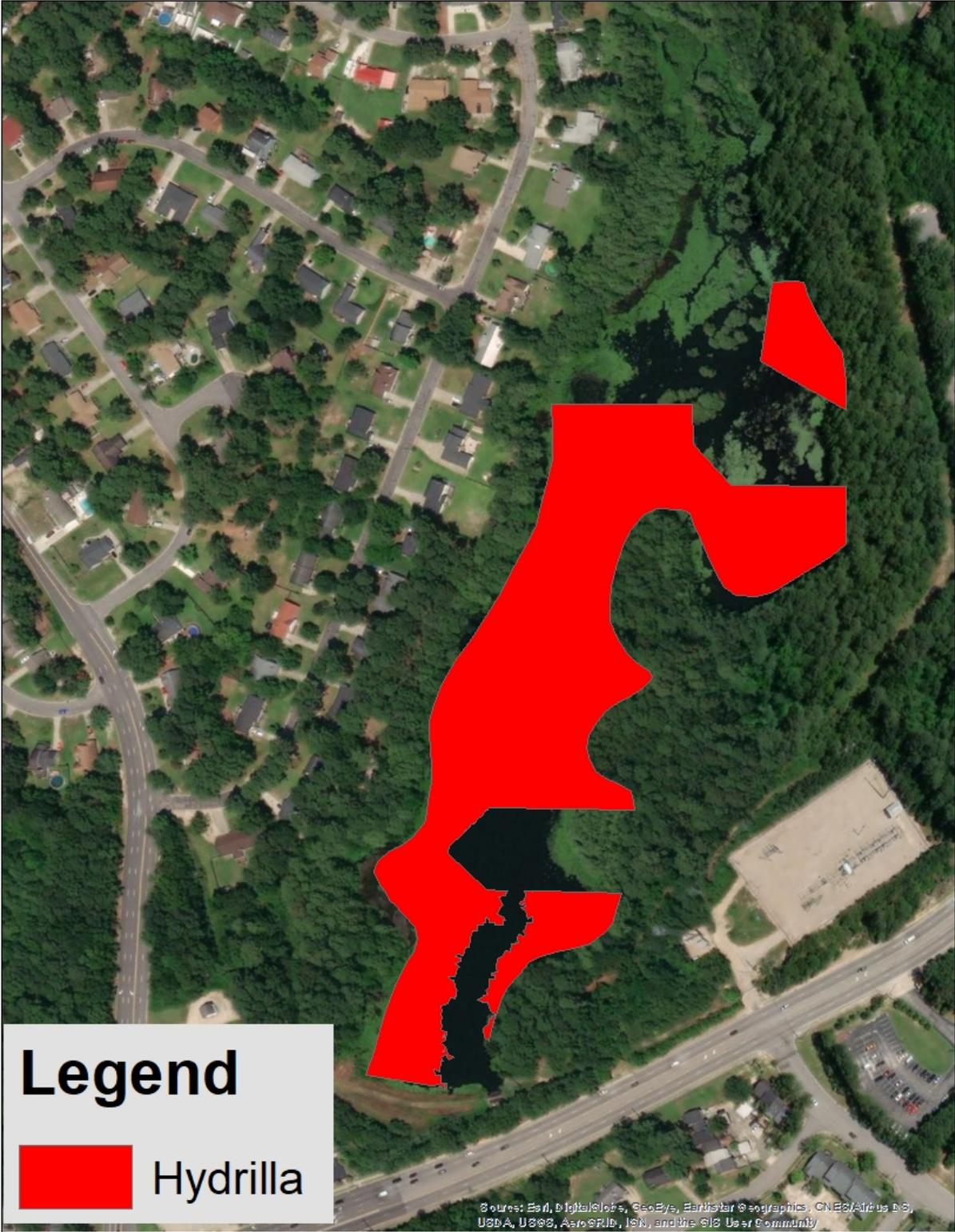


Figure 3. Map showing Hydrilla coverage (8 acres).

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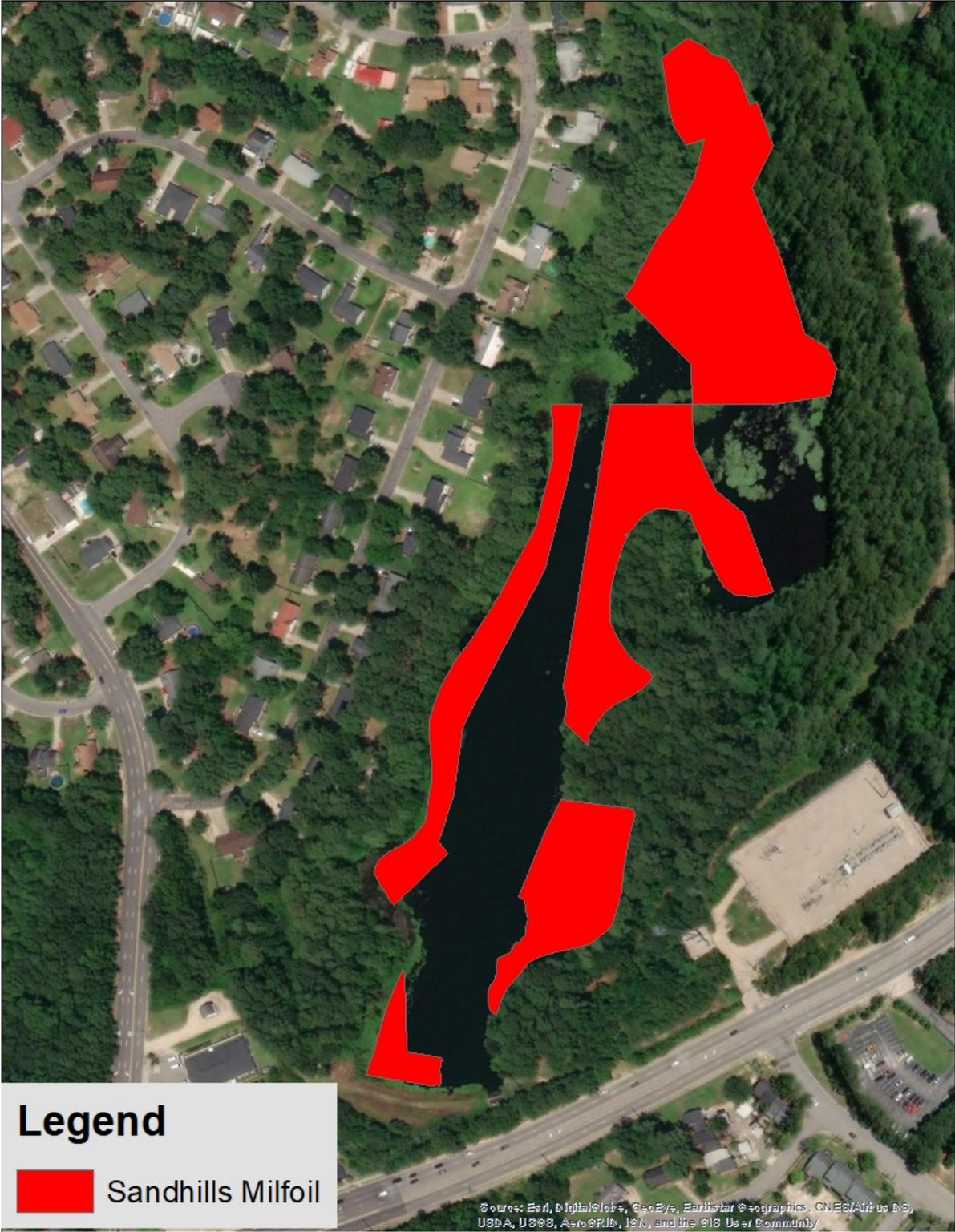


Figure 4. Map showing coverage of Sandhills Milfoil (7.5 acres).

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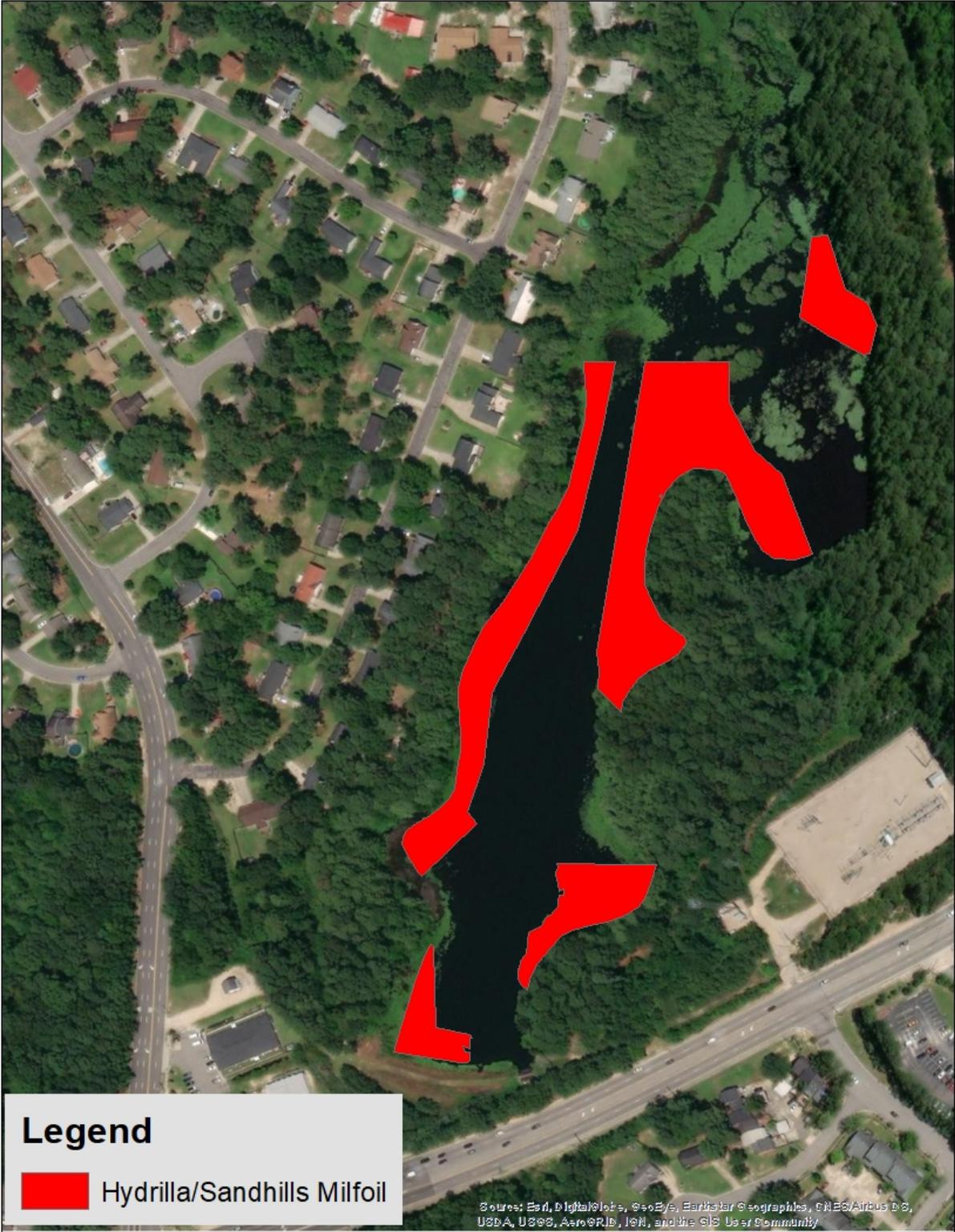


Figure 5. Map showing Hydrilla/Sandhills Milfoil intermixed (4.3 acres).

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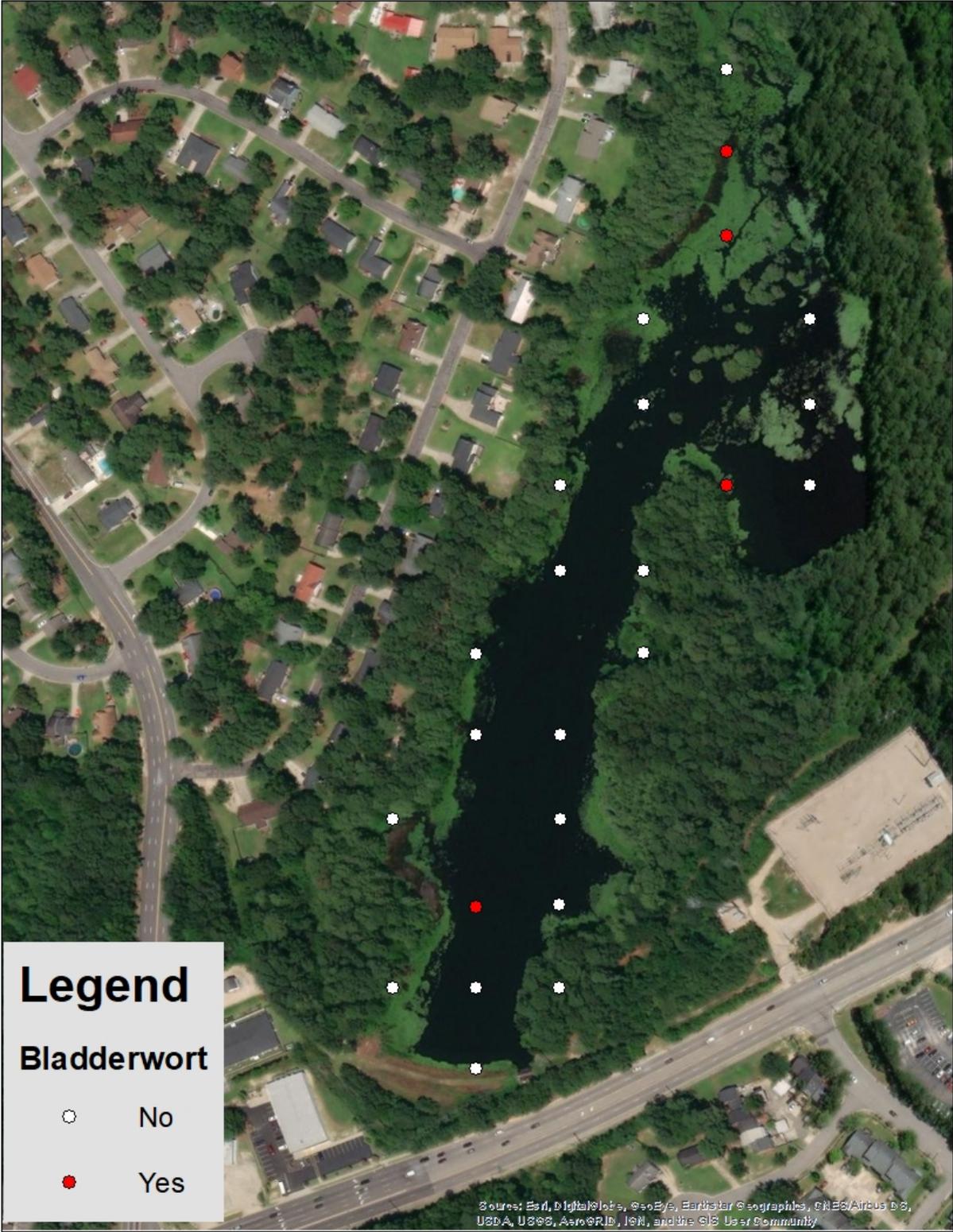


Figure 6. Map showing presence/absence of Bladderwort.

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Figure 7. Map showing presence/absence of Pondweed.

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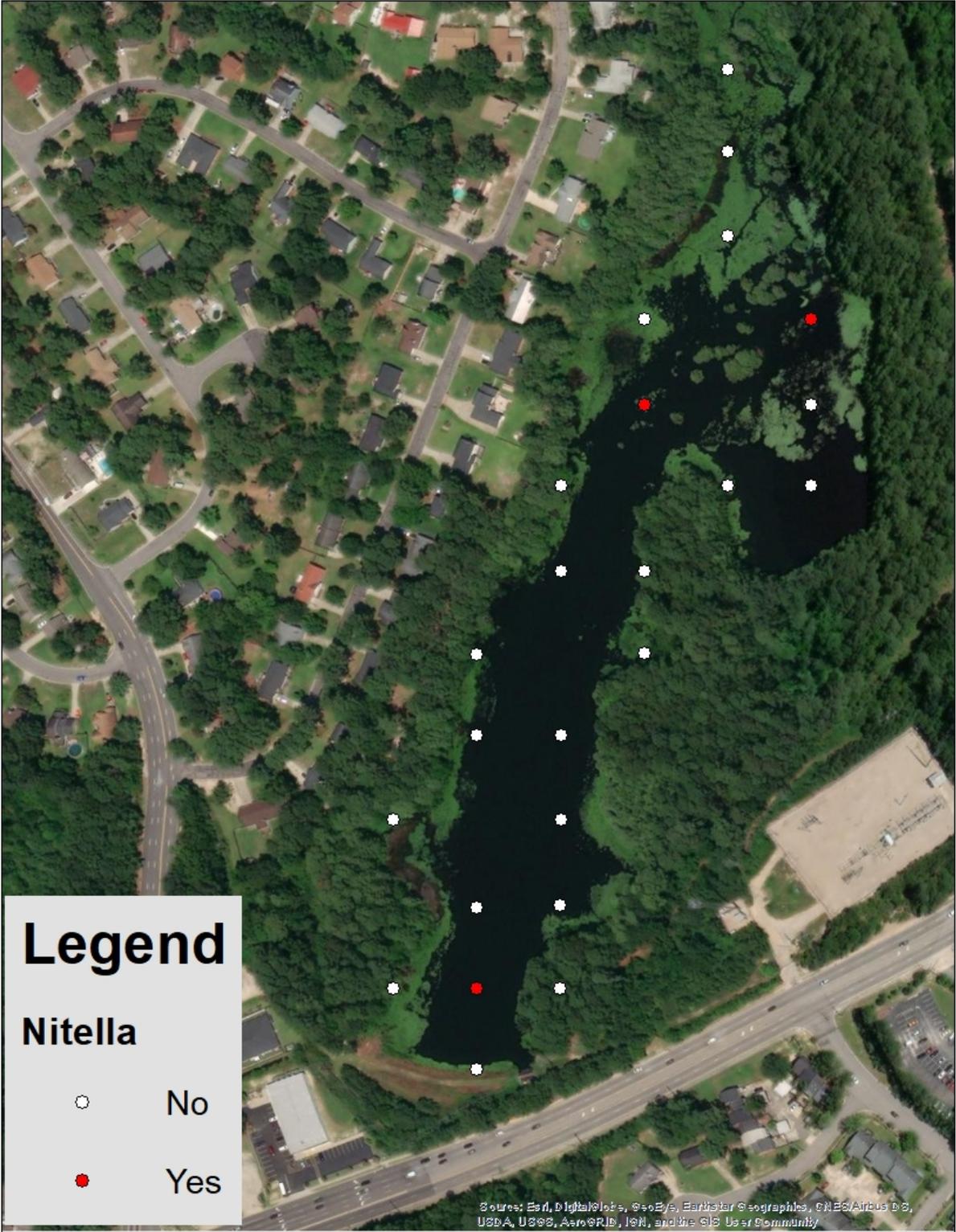


Figure 8. Map showing presence/absence of the macroalgae Nitella.