Dominance of individual species can be a useful component of FOC; overall aquatic macrophyte balance can be basally understood through the dominance and commonality of each species. Dominance is often spread across multiple species within aquatic systems, where a level of macrophyte/richness health can be understood. Having few species with more Dominant locations can indicate unbalanced growth.

EWM was the most observed and Dominant species at the time of the survey, occurring at 52 of the 126 (41%) point locations (Figure 2, Appendix B – Raw Data). Over half of the points EWM was present were categorized as Dominant – 32 of the 52 points. Growth occurred out to depths of 15 feet; the points located in deeper locations (15-20 feet) did not contain any EWM growth. Overall, EWM remained the most Dominant species within Woodridge Lake. Patches of Dominant growth throughout the lake, typically within shallow coves, or areas of potential nutrient deposition: offshore of the beach location, the club launch cove, northern cove, outlet/dam cove, and various locations along the western shoreline.

CLP was only located at 14 of the 126 (11%) point locations, only one of which was documented as Dominant (Figure 3). While the few locations of CLP may indicate decrease in the population, it can also be attributed to the nature of the survey. CLP has an early life cycle and usually dies back by early July. A wider distribution across the lake likely occurs earlier in the season, and has been proven as such during monitoring years including an early-season survey. An additional explanation is the mechanical harvesting performed at the lake. The harvester removes the top portion of the plant (~2 feet) from the water column, including turions produced within that zone. While it does little to control CLP growth and spread through root structures, the removal of turions can reduce the spread and annual regrowth.

Other Dominant species from the September survey include, in order of Dominance: Richardson's pondweed, coontail, water stargrass, and common waterweed, all of which are Dominant at 8-10 locations throughout the lake.

Historical Macrophyte Trends as Related to EWM

The areal bottom cover and biomass assigned to overall plant growth and EWM for each point location are quantitative values that can be used to compare annual surveys and determine change over time. Average values were calculated for the survey area, using the littoral zone points from 2012-2014 surveys and the current 126 data points for years 2015-2017 (Charts 1 & 2). A lake-wide comparison for 2015-2017 is not displayed since all points are considered within the littoral zone (≤20 feet). Moreover, the 2008 and 2015 changes in point locations generate large error values in the yearly comparison and require qualifiers that render the data irrelevant to this program.

Chart 1. Average Littoral Percent Cover

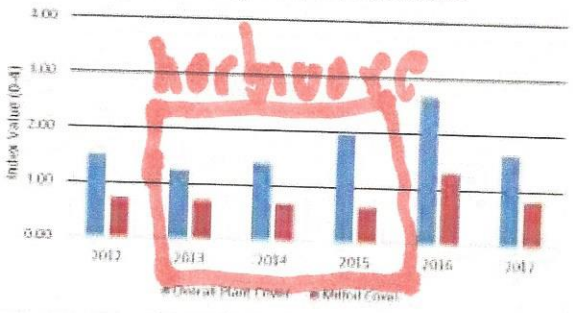
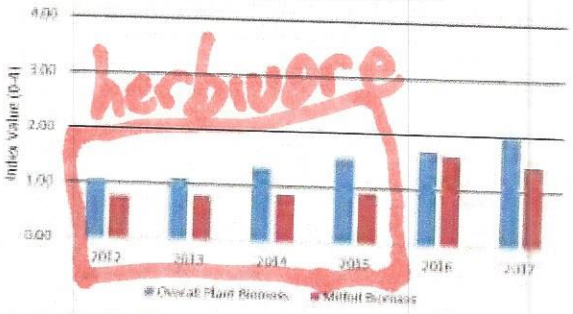


Chart 2. Average Littoral Biomass



Plant cover represents an estimate of the areal (two-dimensional) macrophyte cover of the littoral bottom, while biomass represents the height of the plant growth within the water column. This creates a volumetric outlook on the plant assemblage within the littoral zone of Woodridge Lake.