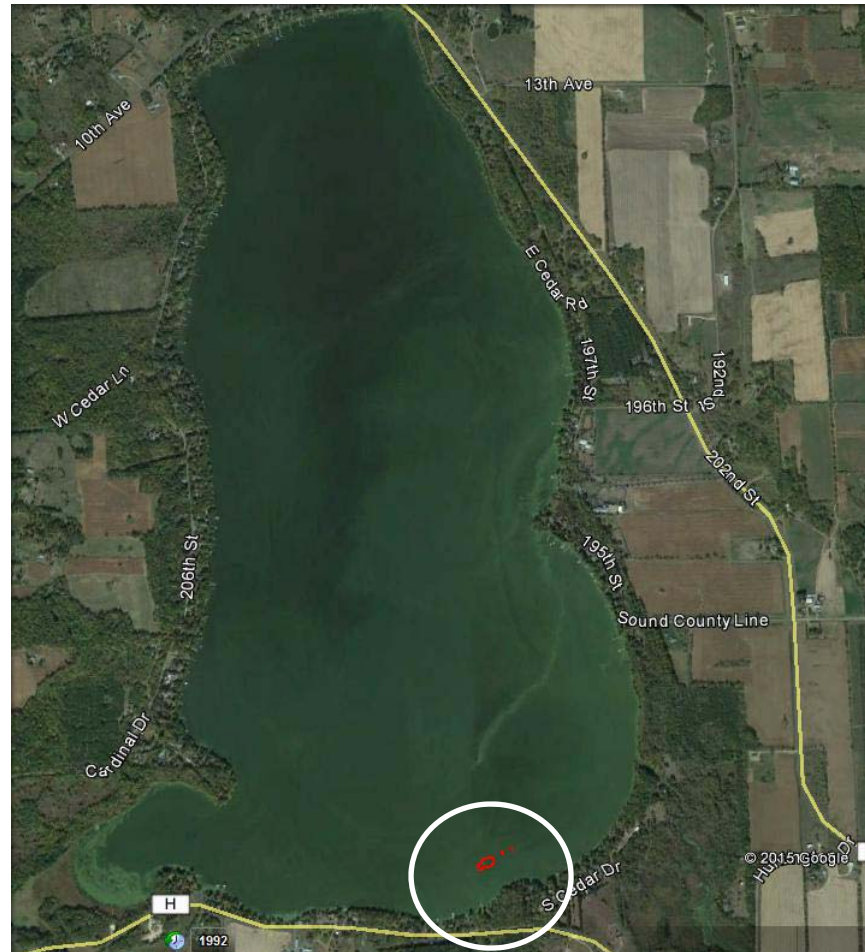


An underwater photograph showing a dense network of green, feathery aquatic plants, likely hydrilla, in a lake. The plants are illuminated from above, creating bright highlights and deep shadows. The water is dark, and the overall scene is a close-up of the vegetation.

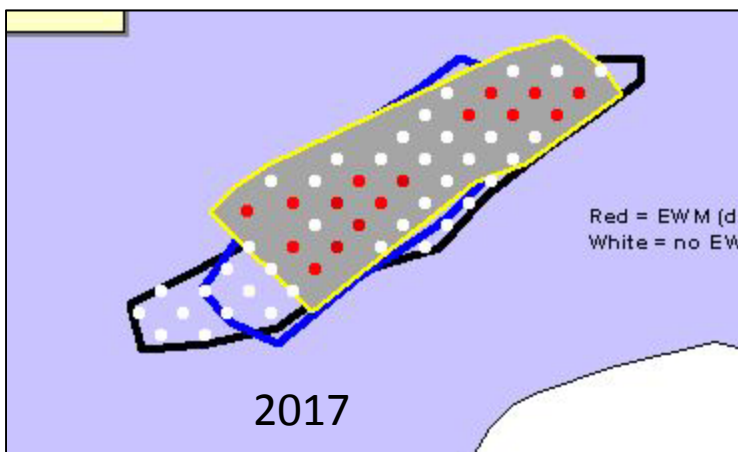
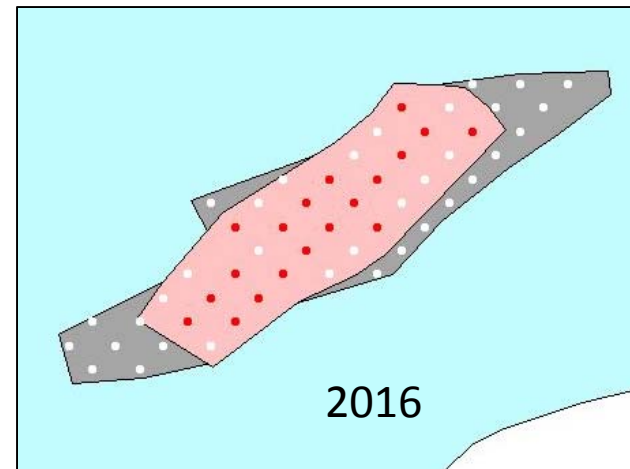
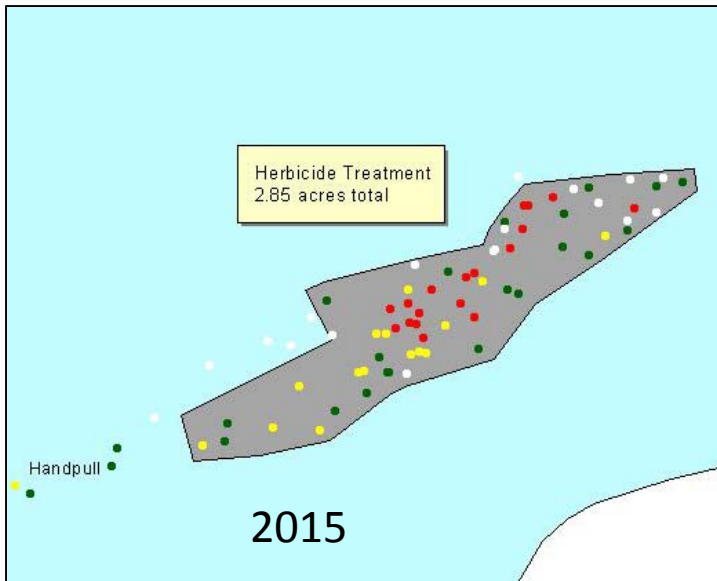
EWM Management Review

Cedar Lake-2018

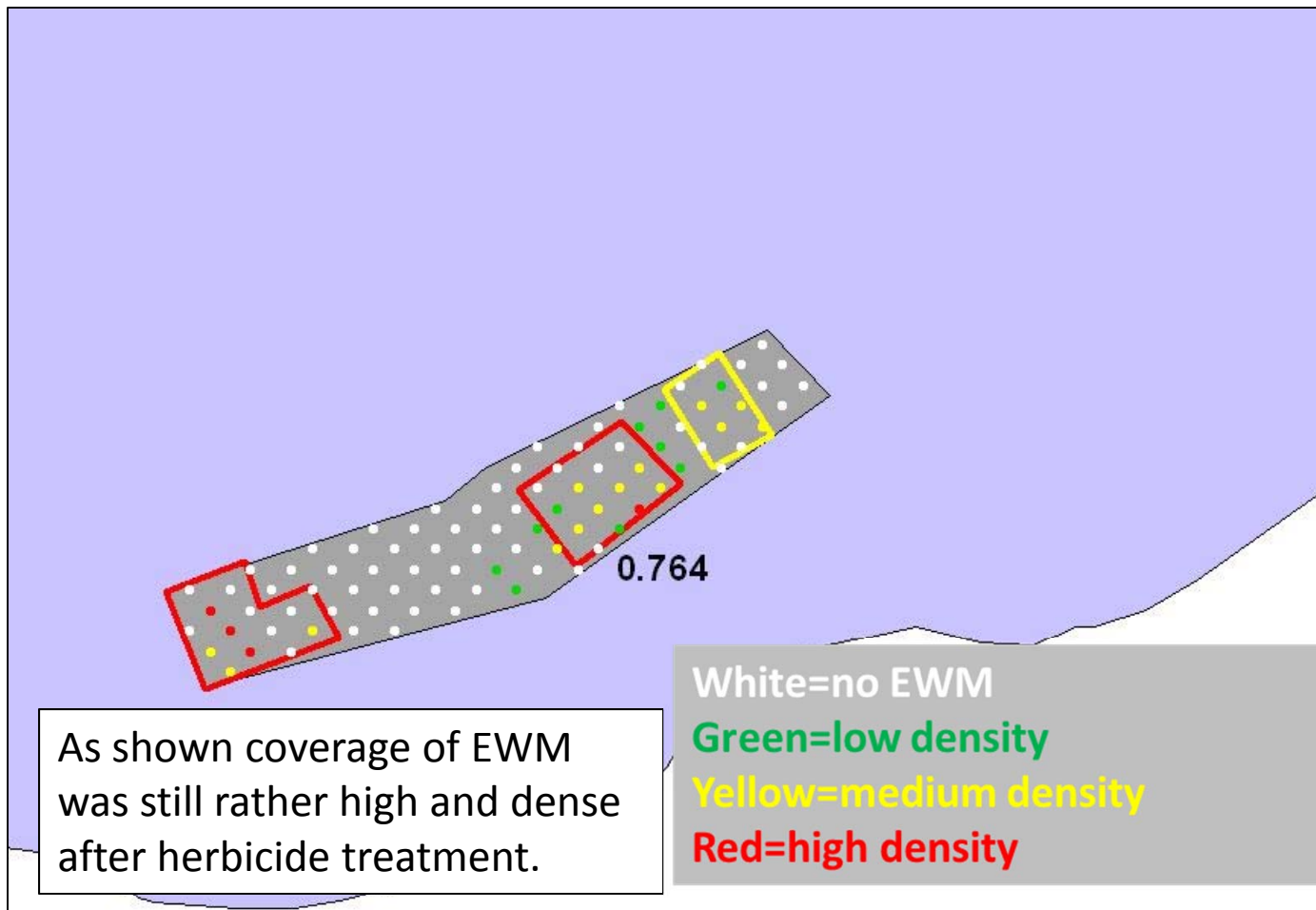
Past...First Discovered June, 2015



2015, 2016 and 2017 Treatments



Post treatment 2017



Stats on treatments

Year	Pre FOO	Post FOO	Significant reduction?
2015	81.2	20.3	Yes
2016	51.4	45.9	No
2017	48.7	46.2	No

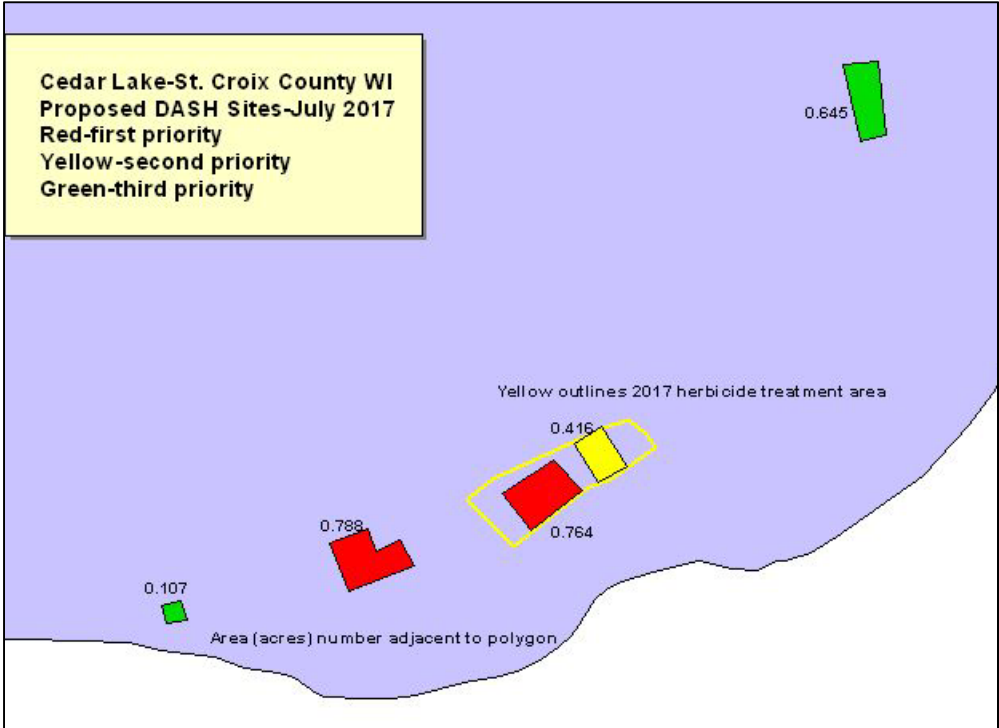
Note that 2016 and 2017 didn't show a statistically significant reduction.

DASH-Diver Assisted Suction Harvest

- Another management tool available
- Used after 2017 herbicide was not effective.



DASH 2017



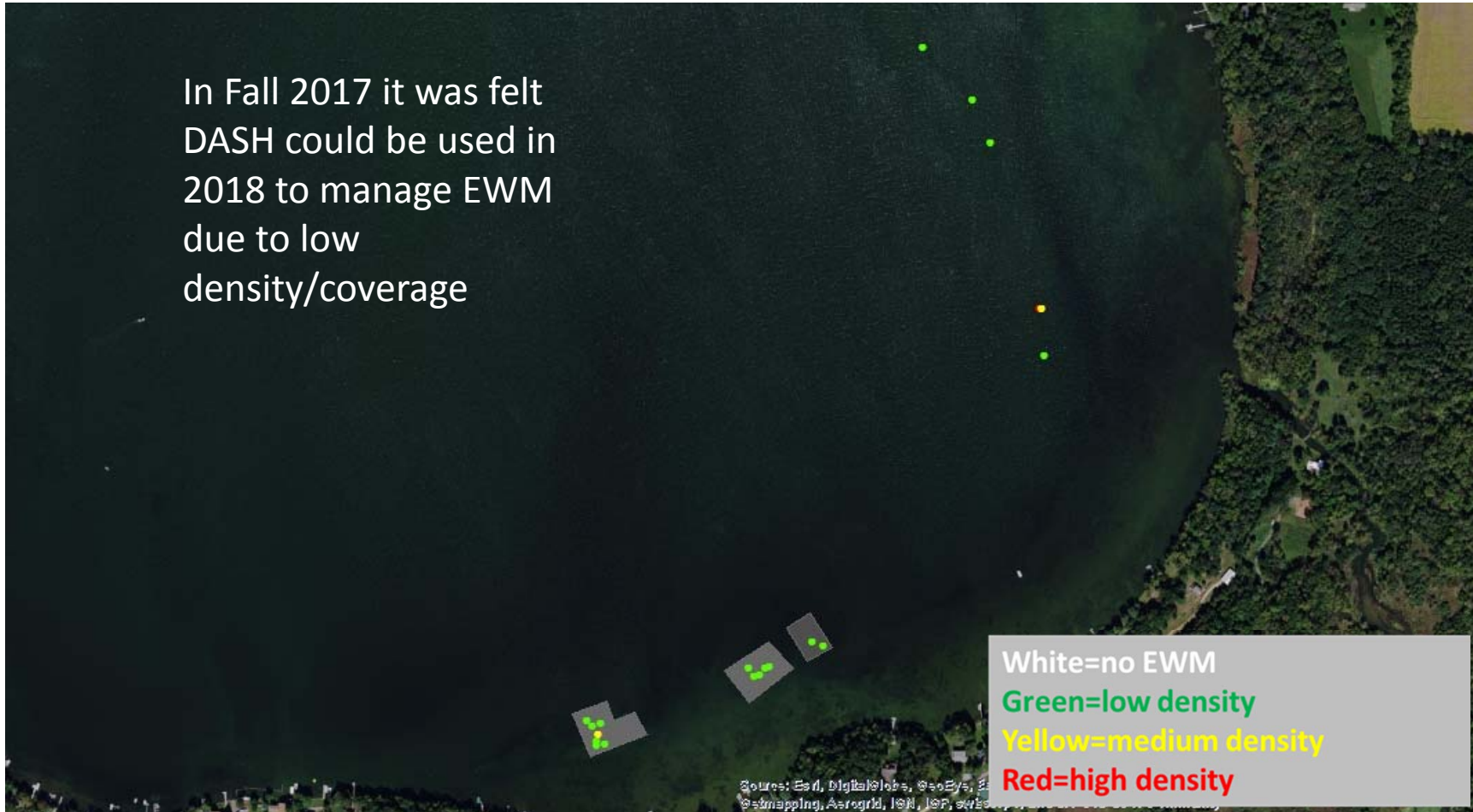
Pre/Post DASH 2017



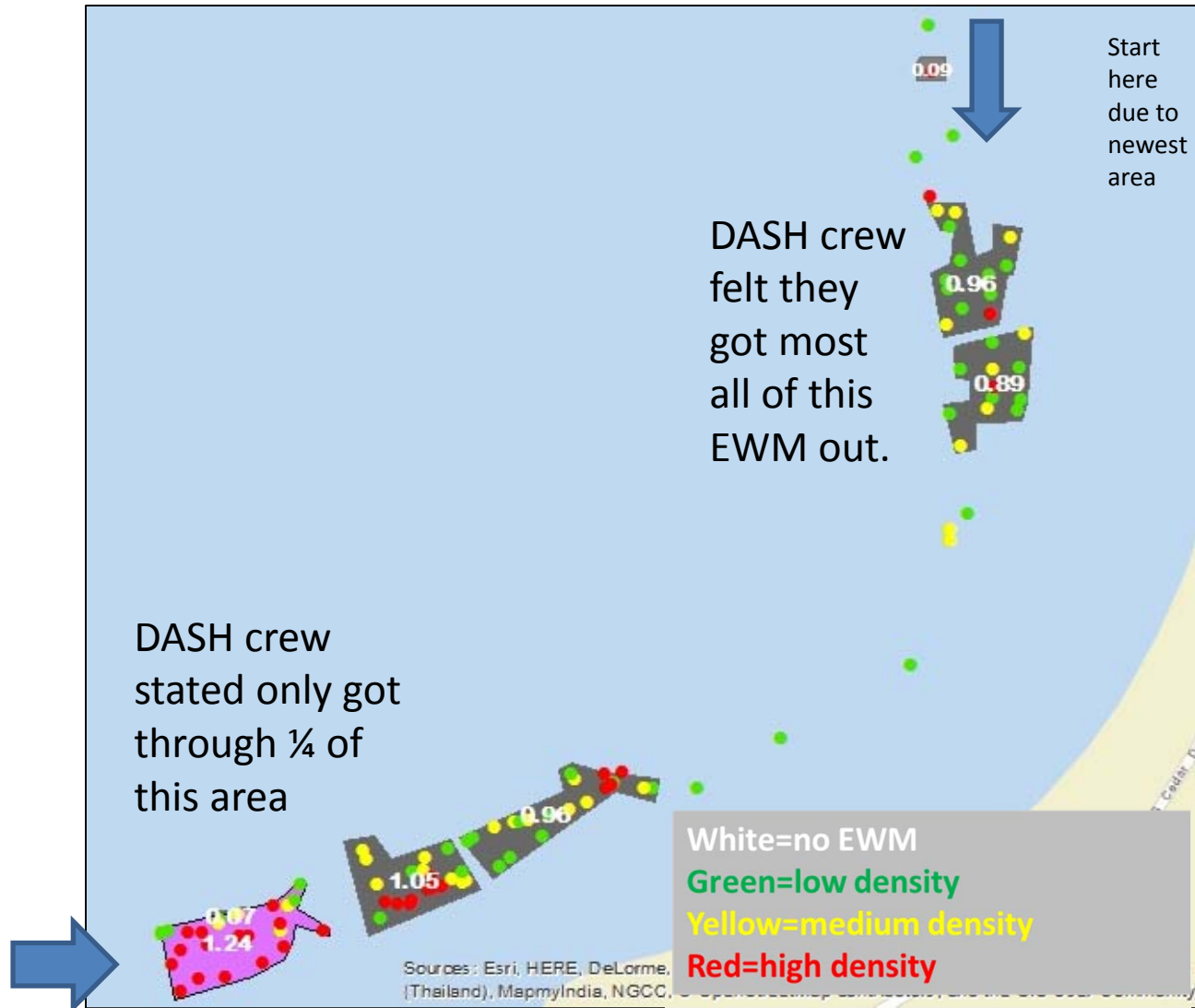
	FOO before DASH	FOO after DASH	Mean Density before DASH	Mean Density after DASH
Within DASH removal areas	51.4%	24.3%*	1.0	0.30
Entire sample grid	30.8%	18.7%#	0.54	0.20

Fall 2017

In Fall 2017 it was felt
DASH could be used in
2018 to manage EWM
due to low
density/coverage



Pre-DASH June/July 2018



Future...

- IPM-“integrated plant management” approach
- Use various tools to manage EWM-herbicide, DASH, hand pulling.
- Herbicide is most effective on large, dense beds, but not warranted for small areas.
- DASH is most effective on smaller clumps, but not in larger, dense beds.
- Hand pulling individual plants can also be effective.

Future

- EWM is slowly spreading, partly due to lack of effective herbicide treatments in 2016 and 2017.
- In fall 2017, it appeared DASH could contain EWM...it grew quite quickly in spring 2018.
- A new herbicide (ProcellaCOR) is likely available that may increase efficacy. We will explore potential uses, possibly in 2019.
- If areas are too large for DASH, use herbicide then potentially follow-up with DASH/hand pulling. This integrated approach is likely the most effective way to manage EWM, assuming herbicide application is effective.

Thanks!

- *Thank you* to Jim Rickenger and Denny Peterson for their AIS monitoring of Cedar Lake...it is very helpful to have them searching for AIS.