

OTTER LAKE SUMMARY AND CONCLUSIONS

The treatment on Otter Lake was successful. There was little to no EWM found in Otter-A after the treatment and only a few scattered EWM plants were observed in Otter B after treatment (Maps 6 and 16; Table 7). Because Otter-B is located in a high traffic area, it is recommended for treatment in 2009 even though its density alone may not be justification for treatment. Statistically, none of the sites or the lake as a whole had a *significant* reduction in EWM that can be attributed to the treatment, largely because the limited sample size could not detect significance at the level of reduction observed (Figure 19). Overall, seven less sub-sample locations contained EWM after the treatment. Figure 20 shows that although occurrence wasn't greatly reduced, the rake fullness distribution indicates a large reduction in density. There were 19 sub-sample locations that contained EWM before the treatment, with 14 of the locations having a rake fullness rating of greater than one (Figure 20). After the treatment, while 12 of the sub-sample locations still contained EWM, only two of the locations had a rake fullness greater than one (Figure 20).

Additional EWM colonies were located within the channel entering from Eagle Lake (Otter-C-09) and near the entrance to Lynx Lake (Otter-A-09) (Map 16). All of these sites are proposed for treatment in 2009.

Six native monocots were found to have significantly increased within the 2008 treatment areas, including Vasey's pondweed, a species of special concern in Wisconsin (Figure 21). Coontail, a broad-leaved species, was also shown to increase its frequency within the treatment areas by almost a third (31.3%). While a few native plants reduced their occurrence within the 2008 treatment areas, none were found to be statistically significant and may be a result of random variation (Figure 21).

Table 7. Evaluation of 2008 EWM treatment on Otter Lake following success criteria standards. N= Number of point-intercept sub-sample locations.

Site	Acres	Dose	EWM Occurrence			EWM Density			Notes
			N	% Change	Criteria Met	Before	After	Criteria Met	
Otter - A	5.0	100	16	50.0	ISS	D=1	Single	Yes	
Otter - B	4.9	150	16	33.3	ISS	D=1	Scattered	Yes	

ISS = Insufficient Sample Size

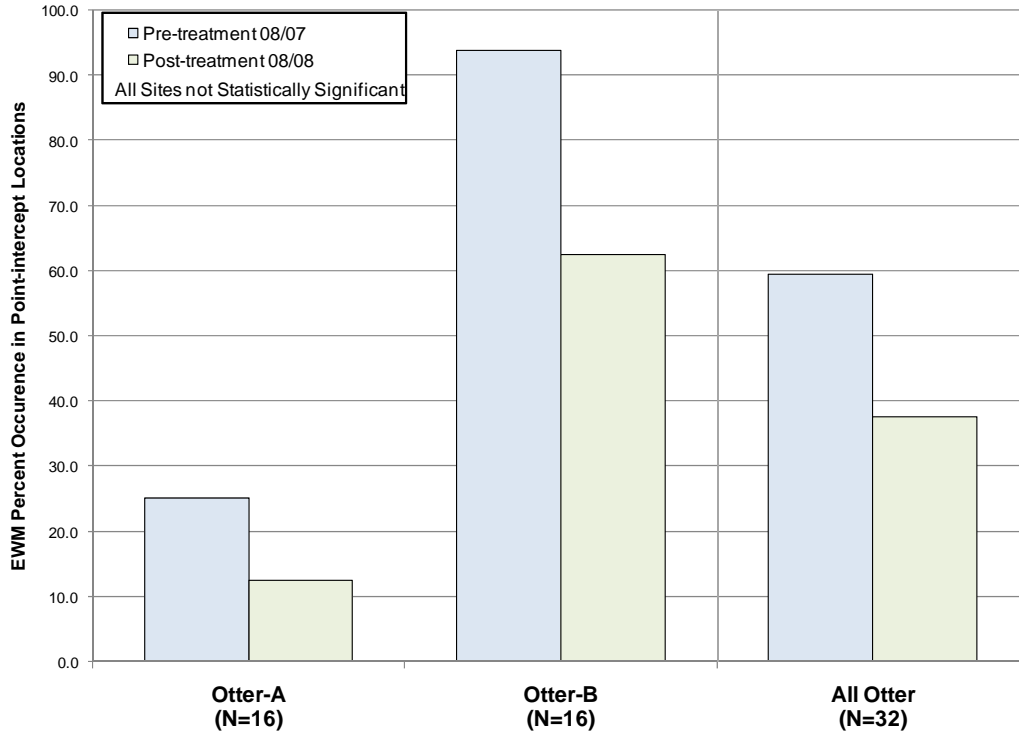


Figure 19. EWM percent occurrence in point-intercept locations displayed by treatment site on Otter Lake. Please note only those treatment sites with eight or more point-intercept locations are displayed on the graph. Statistical significance is determined by Chi-square distribution analysis (alpha = 0.05).

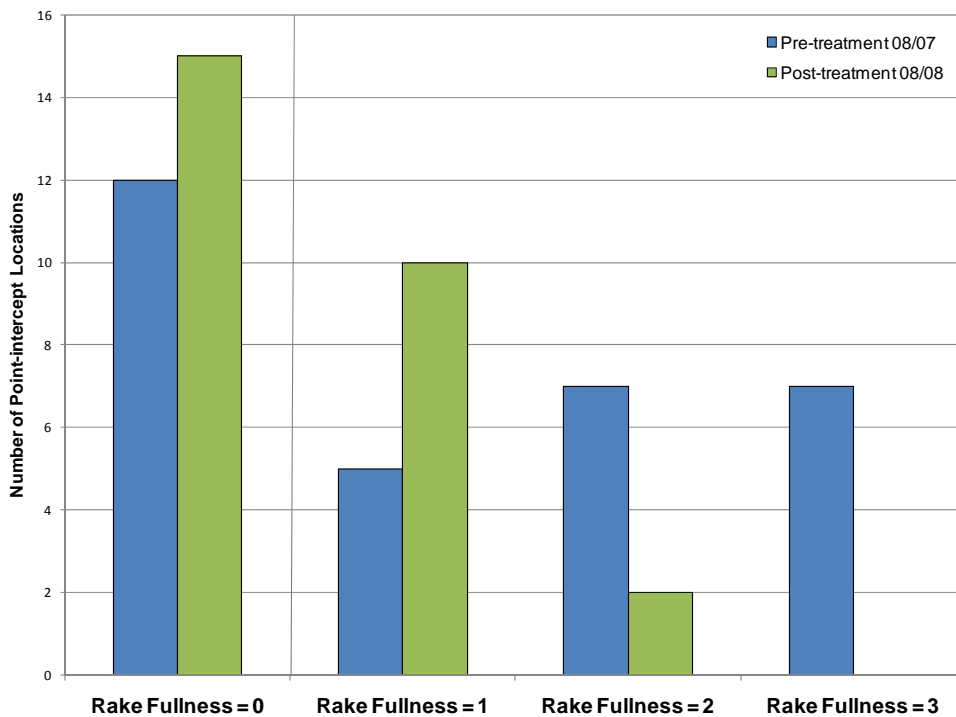


Figure 20. EWM rake fullness distribution within treated areas on Otter Lake.

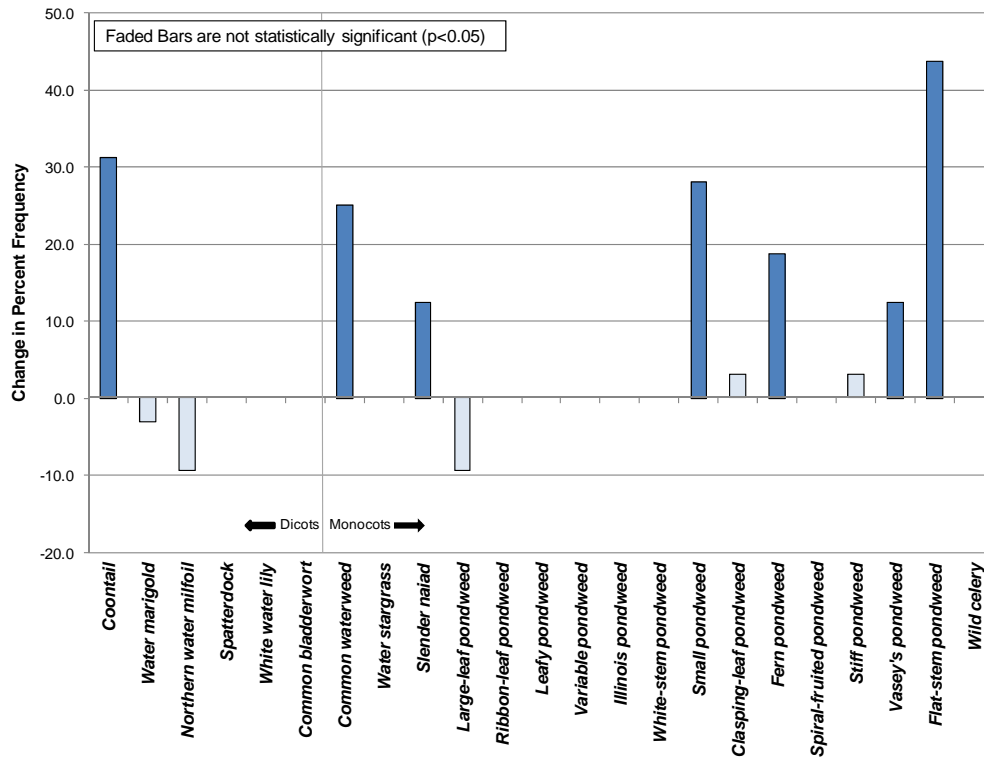
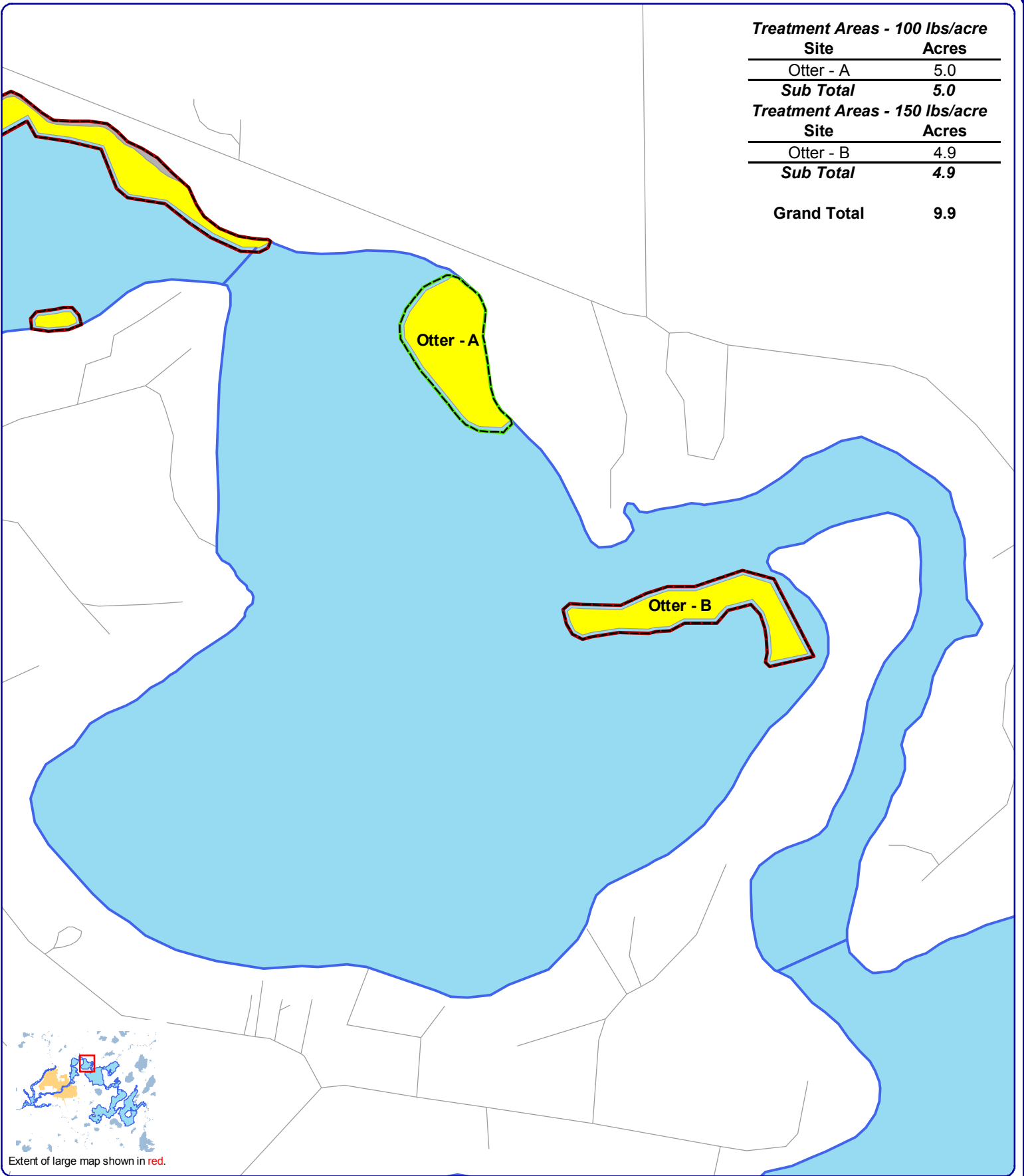
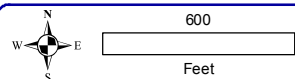


Figure 21. Native plant change in percent frequency from 2007 to 2008 within treatment areas on Otter Lake.

Treatment Areas - 100 lbs/acre	
Site	Acres
Otter - A	5.0
Sub Total	5.0
Treatment Areas - 150 lbs/acre	
Site	Acres
Otter - B	4.9
Sub Total	4.9
Grand Total	9.9



Extent of large map shown in red.



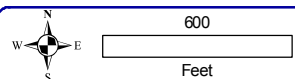
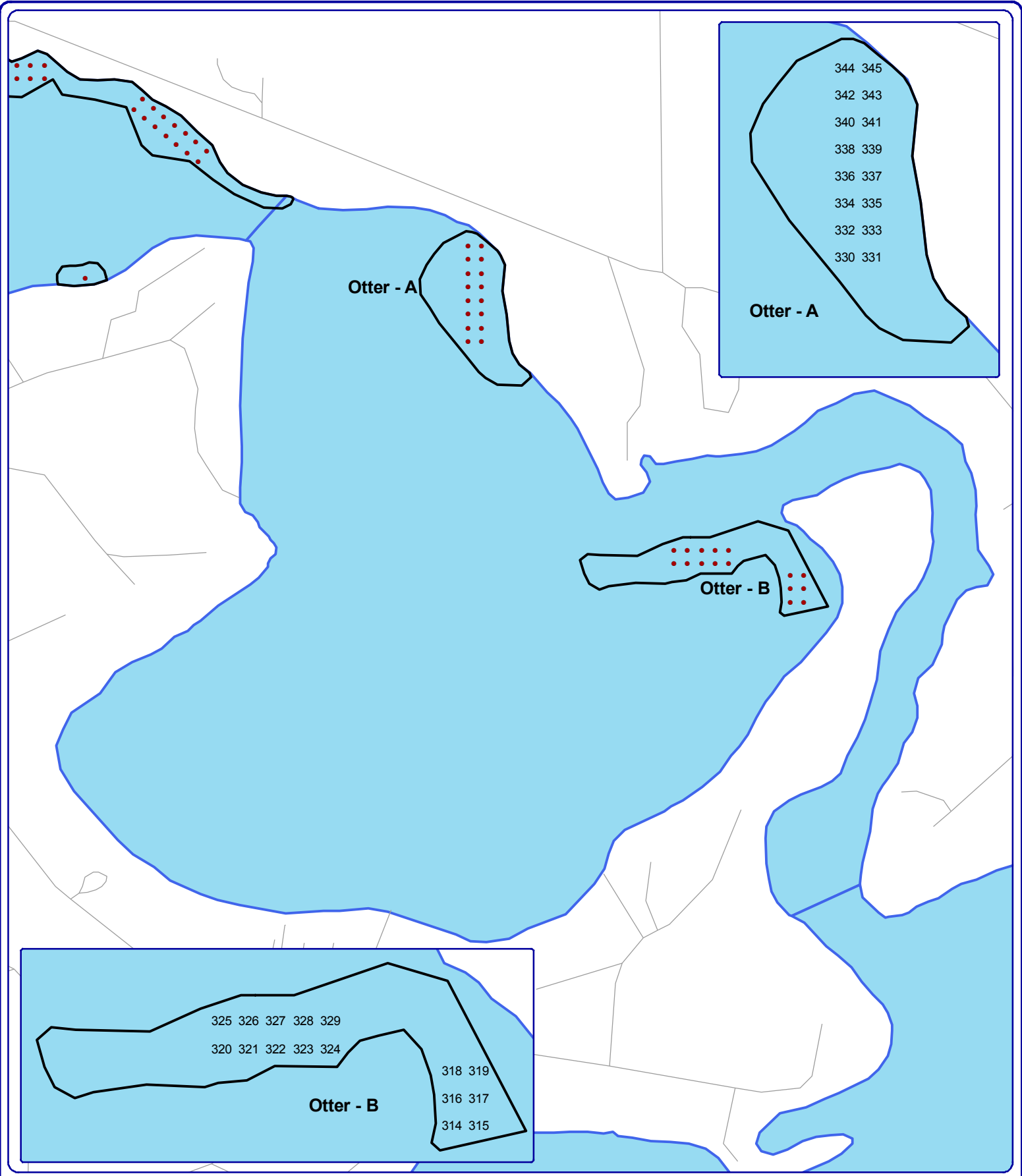
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Source:
 Roads & Hydro: WDNR
 Aquatic Plants: Onterra, 2008
 Map Date: December 31, 2008
 File Name: ERC_2008Treat_Otter.mxd

Legend

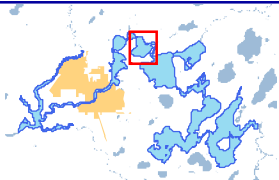
- 2007 EWM Colonies
 - Highly Scattered (none found)
 - Scattered (none found)
 - Dominant
 - Highly Dominant (none found)
 - Surface Matting (none found)
- 2008 Treatment Areas
 - Proposed Treatment Area (150 lbs/acre)
 - Proposed Treatment Area (100 lbs/acre)

Map 6
Otter Lake
 Vilas County, Wisconsin
2008 EWM Final Treatment Areas



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Sources:
 Roads & Hydro: WDNR
 Aquatic Plants: Onterra, 2008
 Map date: December 30, 2008
 File Name: ERC_Otter_EWM_Treat_T08_PI.mxd



Extent of large map shown in red.

- Legend**
- # Point-intercept sub-sample location
 - 🗨 2008 EWM Treatment Area

Appendix A
Otter Lake
 Vilas County, Wisconsin
 2008 EWM Treatment
 Point-Intercept
 Monitoring Locations