

**Draft: Otter Lake, Vilas County, Herbicide Residual Summary, 2011
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**John Skogerboe
US Army Engineer Research and Development Center (ERDC)**

A granular formulation of 2,4-D (Navigate) was applied to four sites on Otter Lake infested with Eurasian watermilfoil (Figure 1). The herbicide was applied on 31 May 2011 at application rates ranging from 1750 to 2330 ug/L ae (Table 1).

A herbicide residual sample location was located in each of the treated sites (Figure 2). Treatment site areas ranged from 1.80 to 3.84 acres. Water residual samples were collected by volunteers using an integrated water sampler to collect water from the entire water column. Samples were collected at 1, 3, 6, 24, 48, and 72 hours after treatment (HAT). Following completion of each sample interval, 2-3 drops of muriatic acid were added to all samples to fix the herbicide. Samples were then stored in a refrigerator until shipped to the ERDC laboratory for analysis.

Residual 2,4-D concentrations ranged from 37 to 145 ug/L ae at 3 HAT compared to a target concentration of 1750 to 2300 ug/L (Figure 3 and Figure 4). Concentrations were at or near the irrigation restriction level of 100 ug/L ae by 1 HAT. The maximum mean concentration was 85 ug/L ae at 3 HAT which was less than the irrigation restriction level at 1 HAT (Figure 5).

**Table 1 Summary of Otter Lake, 2011
Herbicide Treatments Monitored for Herbicide Residuals**

	Area	Depth	Application Rate	Application Rate
Site	acres	feet	lbs/acre	ug/L ae
OT-A	1.80	7	200	2000
OT-B	2.45	6	200	2333
OT-C	3.84	8	200	1750
OT-D	1.60	7	200	2000

Figure 1. Otter Lake, 2011 herbicide treatment sites (Onterra LLC)

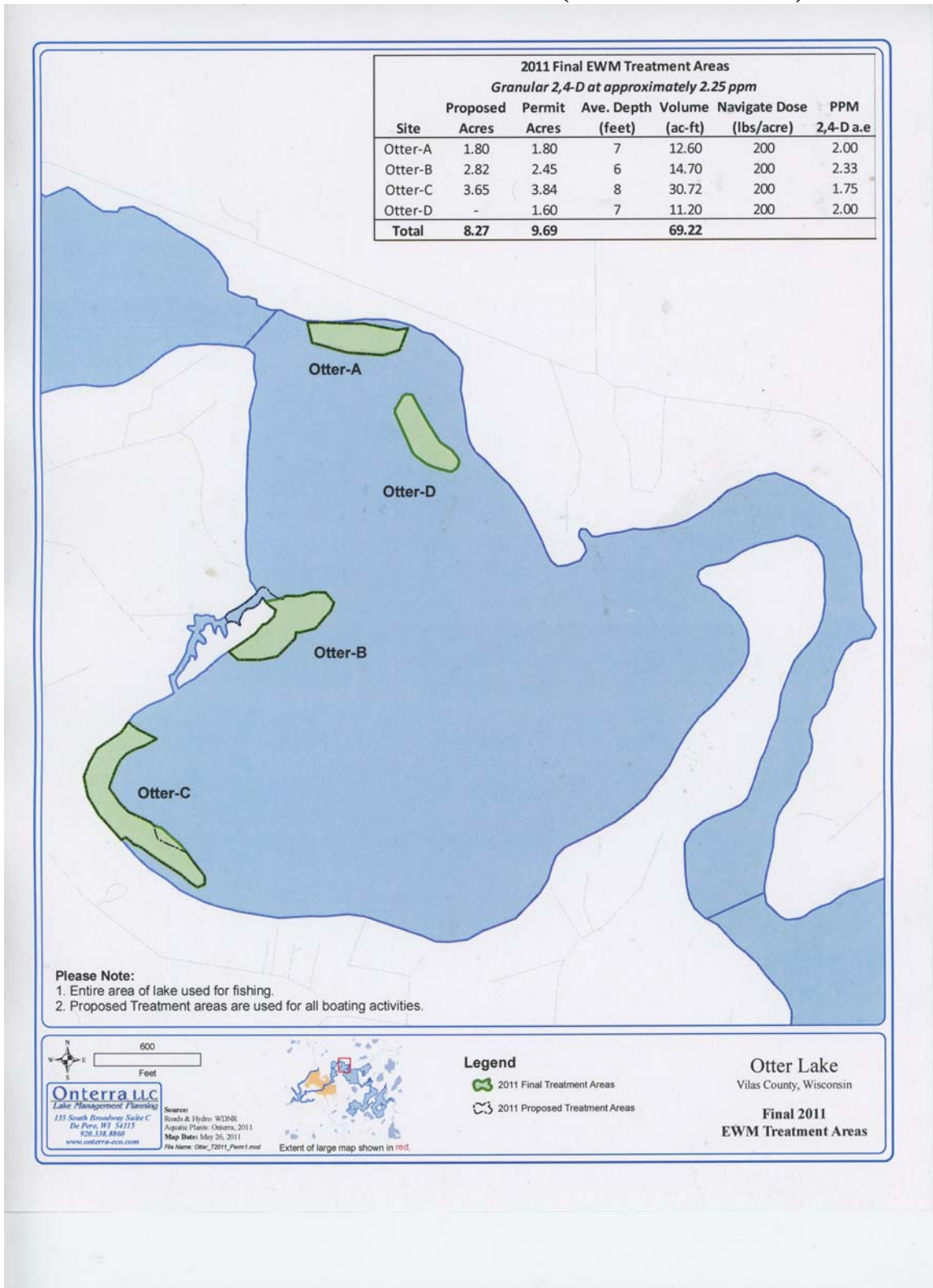


Figure 2. Otter Lake, 2011 herbicide residual sample locations

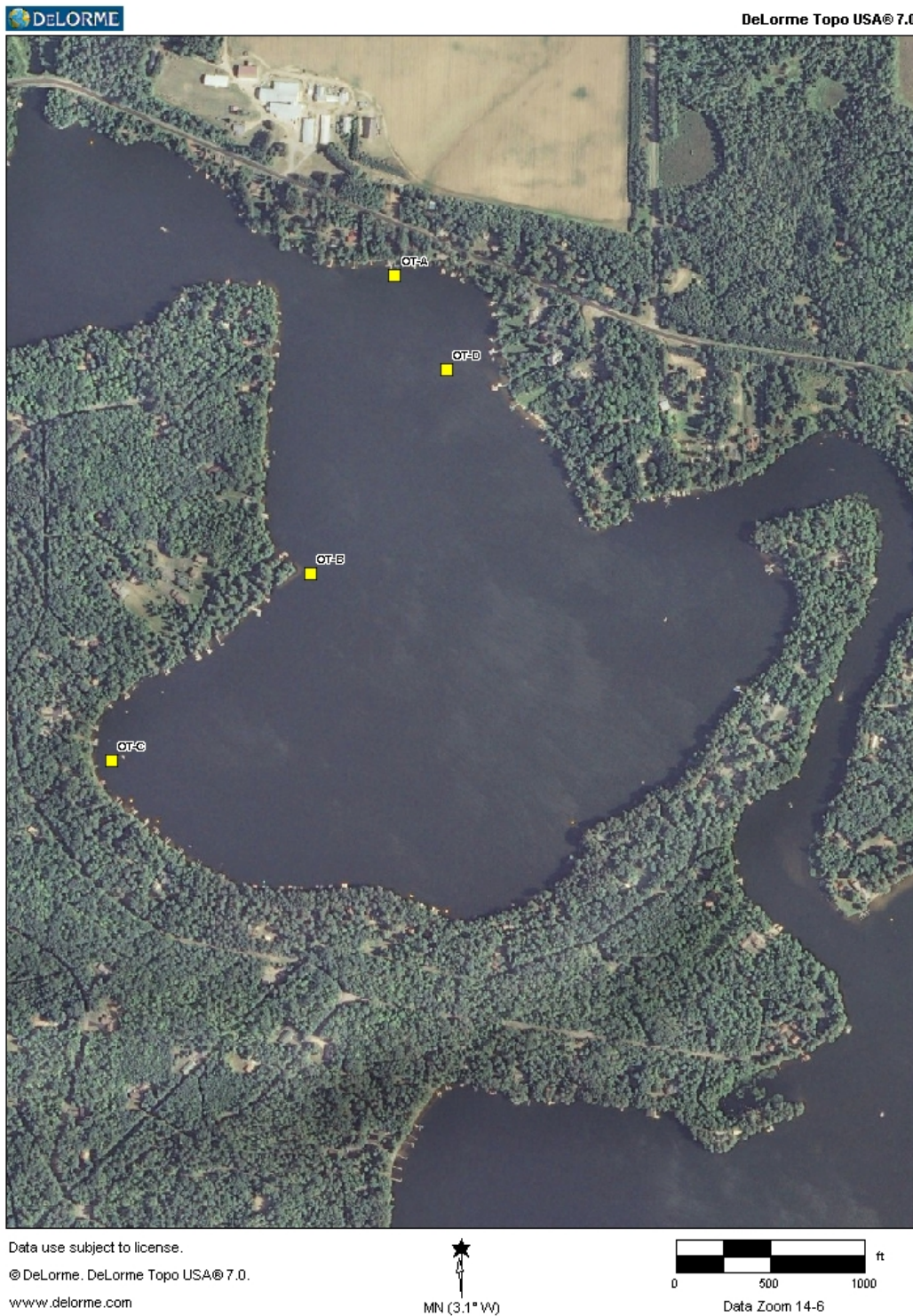


Figure 3.

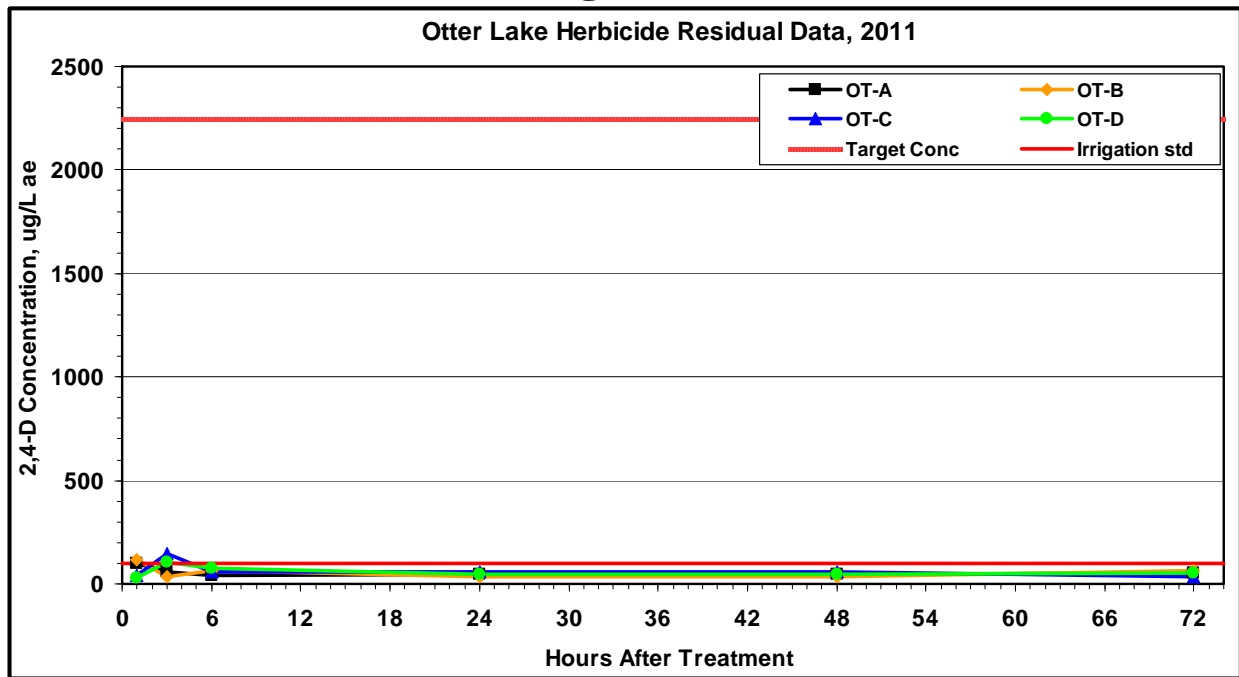


Figure 4.

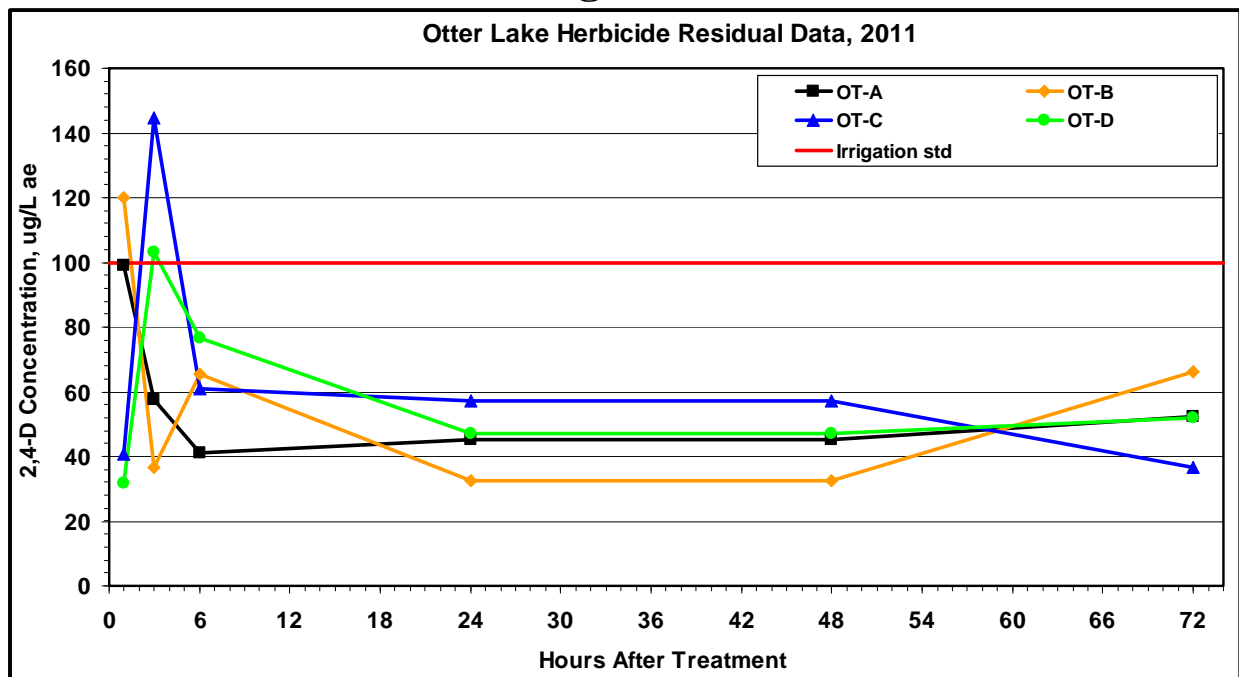


Figure 5

