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APPENDIX A

South Twin Lake, Vilas County, Residual Monitoring Results, 2010

Draft: South Twin Lake, Vilas County, Residual Monitoring Results, 2010

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A liquid formulation of 2,4-D was applied to Eurasian watermilfoil infested areas of South Twin Lake at a target concentration of 2500 ug/L ae (Figure 1) on the afternoons of 25 and 26 May 2010. The lake wide target concentration was 240 ug/L ae assuming complete dissipation throughout the lake. Five sites were located in the lake for herbicide residual sampling, 3 in treated areas (ST1, ST2, ST3) and two in untreated areas (ST5, ST6) (Figure 2). Another sample location was located in North Twin Lake just outside the water passage (ST7). Water samples were collected by lake volunteers at mid depth for all locations at specified sample intervals (Table 1). Following completion of each sample interval, 2-3 drops of muriatic acid were added to the sample to fix the herbicide.

Concentrations of 2,4-D were variable through 1 day after treatment (DAT), but were similar in both treated and untreated areas by 2 DAT (Figure 3). Concentrations at the North Twin site indicated that 2,4-D did not dissipate from South Twin Lake to North Twin Lake. The mean concentration in treated areas at 2 DAT was 303 ug/L ae compared to the target concentration of 2500 ug/L ae (Figure 4). The mean lake wide concentration from 0 through 7 DAT was 575 ug/L ae compared to the lake wide target concentration of 240 ug/L ae. Residual concentrations exceeded or equaled the irrigation restriction limit of 100 ug/L ae through approximately 24 DAT. Based on point intercept plant survey data provided by Onterra LLC, the reduction in Eurasian watermilfoil in South Twin Lake was 100%.

Figure 1. South Twin Lake Herbicide Application Map and Herbicide Residual Sample Locations (Onterra LLC)

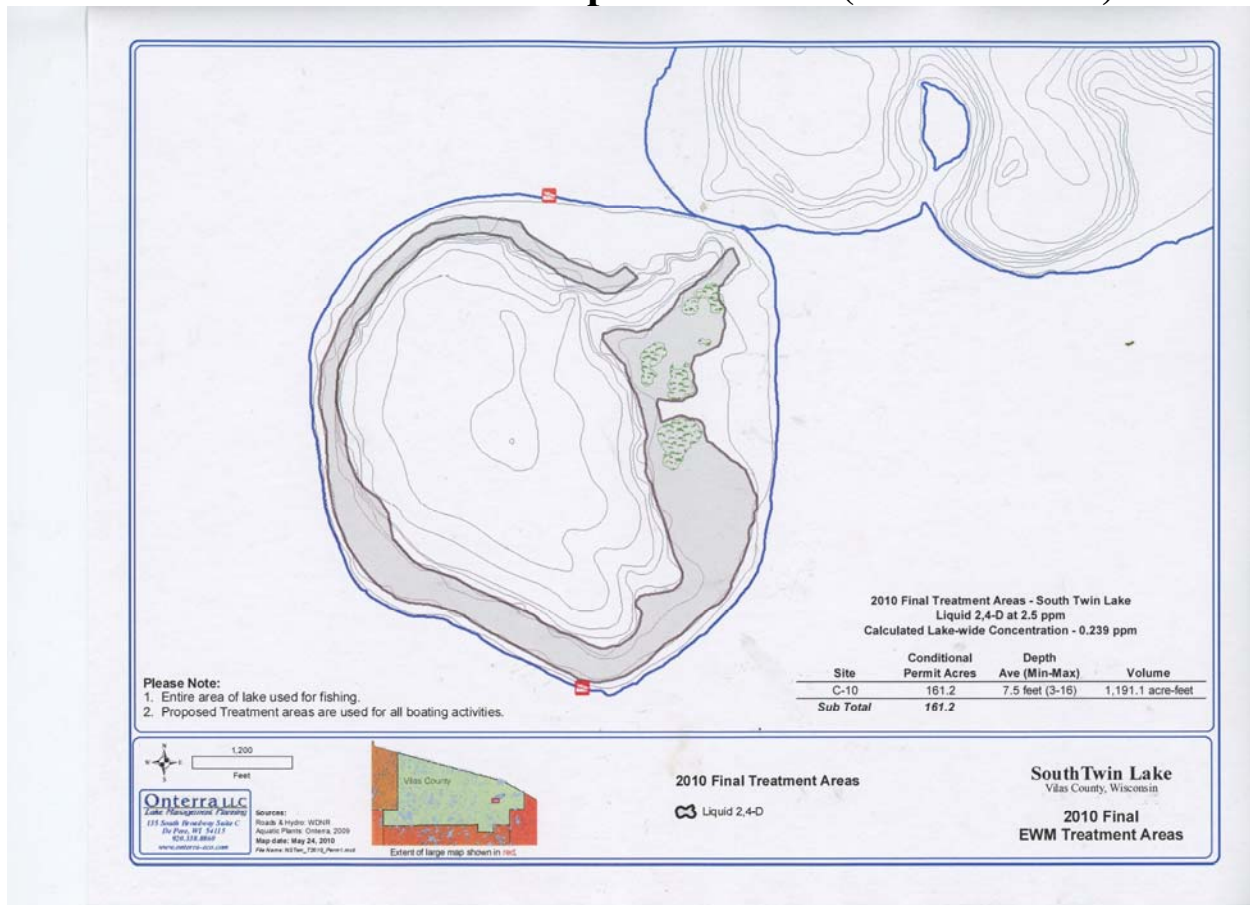
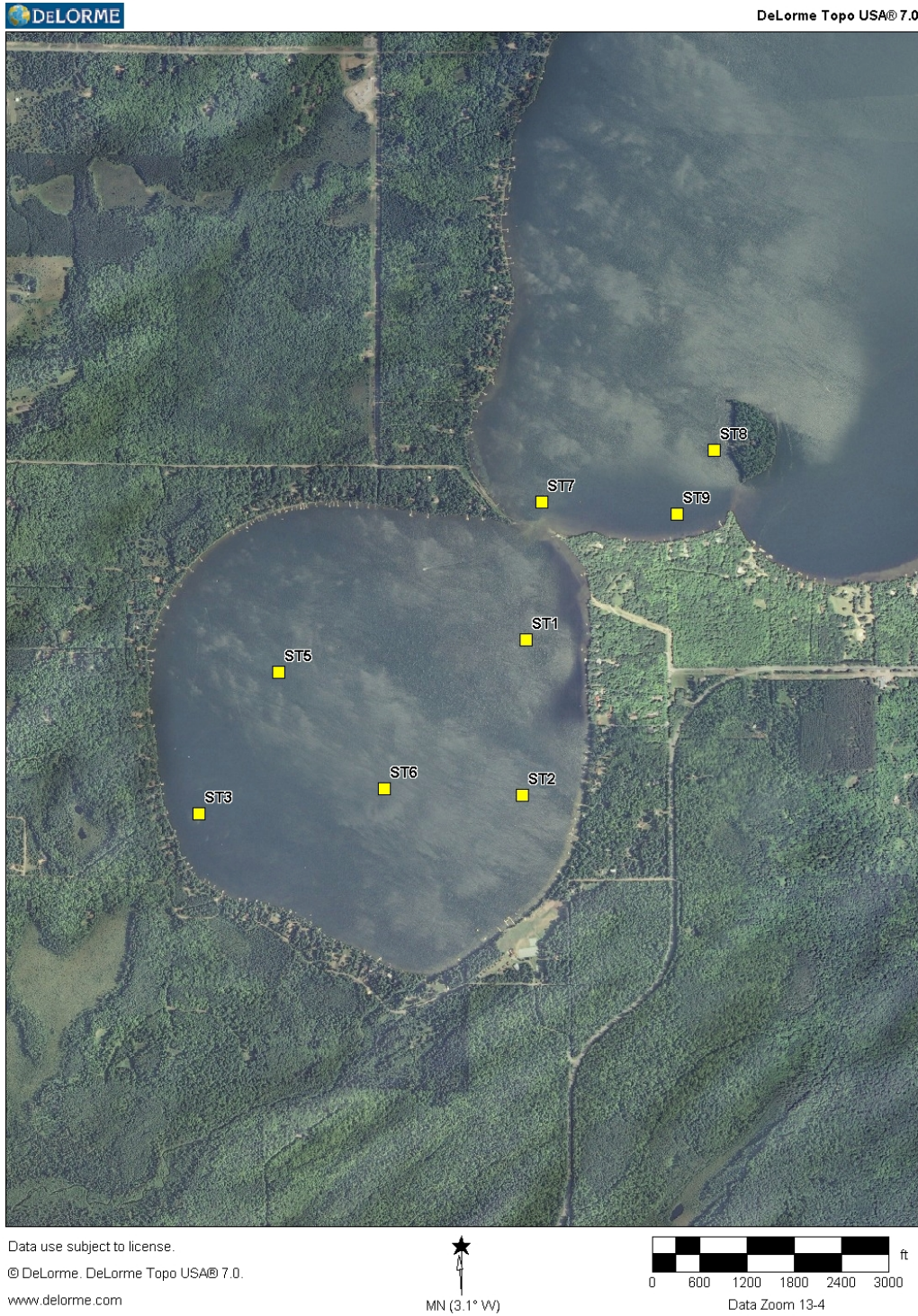


Figure 2. South Twin Lake Herbicide Residual Sample Locations, 2010



**Table 1. Herbicide Residual Sample
Data Sheet**

South Twin Lake Sample Schedule		
Sample	Samples per	Total
Interval	Interval	Samples
Pre	5	5
2 DAT	5	10
3 DAT	5	15
5 DAT	5	20
7 DAT	5	25
14 DAT	5	30
21 DAT	5	35
28 DAT	5	40
42 DAT	5	45
56 DAT	5	50

Figure 3

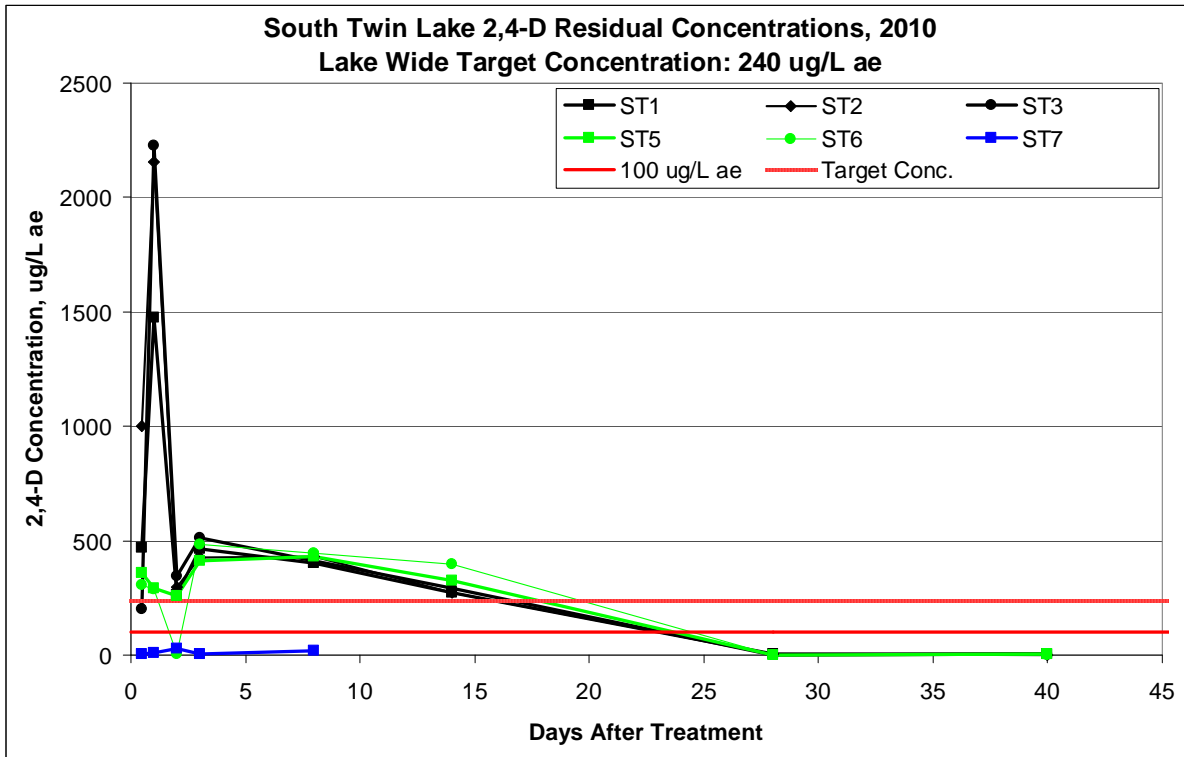


Figure 4

