In-Lake Suppression of Submersed Flowering Rush

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The demonstration trial was conducted in East Bay of Flathead Lake. Clean Lakes (Tom McNabb & Tom Moorhouse) was the application contractor. The treatments were made August 3, 2011 using their Littline Littoral Zone Application System for water column injection which releases the herbicides at the bottom of the water column (Figure 1). The submersed flowering rush treatments are all liquid formulations snd were applied at the labeled maximum rates (Table 1). The four herbicide treated plots ranged from 5.8 to 7.0 acres with mean water depths of 4 to 5 ft.

Figure 1. Water column injection of herbicides for suppression of flowering rush in East Bay Flathead Lake.

Table 1 Herbicide treatments were made at the maximum label rates.

Herbicide Treatments
Triclopyr (1 ppm) + Aquathol K (2.5 ppm) {triclopyr + endothall}
Weedar 64 (1 ppm) + Aquathol K (2.5 ppm) {2,4-D + endothall}
Aquathol K (5 ppm) {endothall alone}
Weedar 64 (4 ppm) + Triclopyr (1 ppm) {2,4-D + triclopyr}
Untreated Control

The submersed flowering rush treatments with liquid formulations did not result in suppression levels that would justify the expense of one time treatment with these herbicides (Table 2).

Table 2. Percent reduction or increase* in flowering rush vertical canopy cover index six weeks, one, and 2 growing seasons after water column injection of liquid herbicide.

	6 WAT	1 YAT	2 YAT
Treatments	**% Reduction**	**% Reduction**	**% Reduction**
2,4-D + triclopyr	53%	25%	22%
2,4-D + endothall	74%	30%	34%
triclopyr + endothall	26%	11%	-22%
endothall alone	47%	21%	16%
Untreated Control	0%	1%	-5%

*negative values are measured increases relative to pre-treatment leaf abundance