

**Figure 4.** Garlic mustard distribution showing spatial relationship with wetland and transition zones.

Phragmites (3.82 acres)

Relatively small patches of phragmites have been observed within the Glen (Figure 5). In order to effectively control the phragmites within the ponds PES will need to foliar spray the phragmites within the wetland area. We recognize that this is inconsistent with the "no spray zone" we have previously stated. Foliar applications to dense phragmites are a best management practice for successful phragmites control; therefore we believe an exception in this case is justified.

We propose to conduct a foliar spray herbicide application in the fall 2013, followed by hand cutting with brush saws late fall/early winter 2013. Two more follow-up herbicide applications will be conducted in 2014 and 2015 in order to complete the process.

1. Herbicide application (September/early October 2013): Dense phragmites will be foliarsprayed using backpack sprayers and orchard ladders with the herbicide Rodeo<sup>®</sup> (EPA Reg. No. 62719-324). Rodeo<sup>®</sup> is an approved-for-wetland glyphosate-based herbicide that is considered the standard for successful phragmites control and protection of wetland resource areas. We will also use an approved non-ionic surfactant called Cide Kick II<sup>®</sup>, indicator dye, and a drift control agent (Figure 6).

2. Cut phragmites (November/December 2013). We will cut and leave in place dense monotypic phragmites within the project area.

3. Phragmites follow-up herbicide application (early fall 2014) using the targeted herbicide application methods described below.

4. Phragmites follow-up herbicide application (summer 2015) using targeted methods.



Figure 5. Phragmites distribution, showing spatial relationship with wetlands and buffer zones.



**Figure 6.** A motorized backpack sprayer operated from an orchard ladder is the primary mechanism to herbicide treat tall, dense stands of phragmites in the project area.

## Targeted Herbicide Application Method

When appropriate, we use targeted methods in order to assure that there is minimal damage to native plants that are interspersed with phragmites. The following is a brief description of each targeted method:

1. The "cut and drip" method: Each stem is cut below a node on the stem. One drop of a solution made of equal parts Rodeo<sup>®</sup> and water with an indicator dye is dripped into each stem. We typically use this technique around a three foot perimeter where phragmites is growing directly adjacent to native shrubs.



**Figure 7.** The "cut and drip" method. Equipment consists of pruning shears and a drip bottle (left). Phragmites stems are cut low just below a node (right).

The "glove" technique: Each herbicide applicator wears a chemical resistant glove underneath an absorbent cotton glove. The applicator also carries a hand pumped low volume backpack sprayer equipped with specialized ultra low-volume nozzles (Figure 7). The applicator moistens the glove with herbicide from the backpack sprayer, then wipes each stem and leaf of individual phragmites plants.