

1. Though labor intensive, the technique limits herbicide exposure to non-target plants.



Figure 8. The “glove” technique at time of application (left). Results one year later (right).

Purple Loosestrife (<1-acre)

Well-timed hand-pulling is the preferred approach for Purple Loosestrife. We will pull the plants while they are flowering and before they go to seed in July.

1. Hand-pull (July 2013): We will pull Purple Loosestrife plants before they set seed.
2. Hand-pull (July 2014): We will pull Purple Loosestrife plants before they set seed.

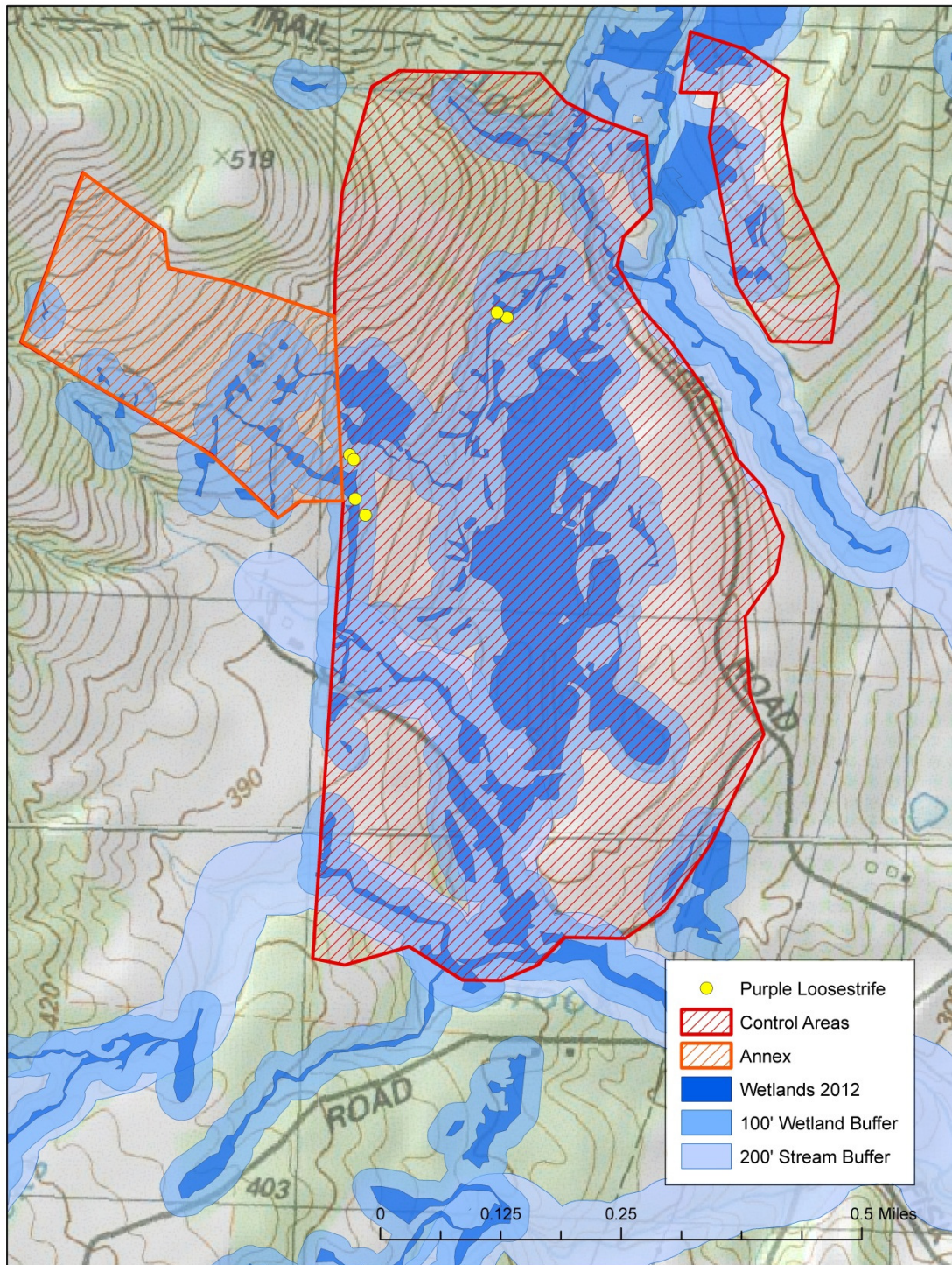


Figure 9. Purple loosestrife distribution, showing spatial relationship with wetland and transition zones.

Woody Invasive Species: Shrubs, Trees, and Vines

Upland/Non-Sensitive Areas (43.56 acres)

Woody invasive trees, shrubs, and vines are located in all four control areas (Figure 10), and include: Morrow's honeysuckle, autumn olive, multiflora rose, Japanese barberry, glossy buckthorn, and Asiatic bittersweet. We have also included treatment of the 0.36-acre black locust polygon and points in the eastern portion of Control Area 1 (see note below). This area is adjacent to the autumn olive polygon in a sensitive rare plant area (Figure 5). These sapling trees are <6" in diameter.

Large Plants

- For invasive shrubs that are >6' tall and/or with stems >1" diameter and bittersweet vines growing vertically into trees, we will use the cut stem/stump method for herbicide application.
- Larger plants will be cut with loppers, brush saws, or chainsaws, and then a concentrated herbicide mix will be applied by squirt bottles or hand-pumped backpack sprayers. The herbicide mix will consist of Garlon 4 Ultra[®] (triclopyr - EPA Reg. No. 62719-40) mixed with a biodegradable methylated seed oil diluent.
- Cut brush will be left in the field. In the case that many stems are cut, we will neatly pile stems nearby. More information on the proposed brush pile protocol is provided on page 14.
- Black locust note: We have not included the 4.13-acre black locust area in the southeast portion of Control Area 1 off of the Gould Farm Road access point. This stand of black locust trees involves a different scope of work than we are prepared to undertake right now.

Small Plants

- For invasive shrubs <6' tall and/or with stems <1" diameter within upland areas we will conduct a foliar spray herbicide application using motorized backpack sprayers. We will also use this application on Asiatic bittersweet vines that are low growing on the ground.
- We use a hydraulic sprayer mounted on an ATV when we encounter dense patches of bittersweet and other invasive plants where this method is most effective. The herbicide used for this application is a very effective three-way mix of Accord Concentrate[®] (glyphosate - EPA Reg. No. 62719-324), Escort XP[®] (metsulfuron methyl - EPA Reg. No. 352-439), Arsenal[®] (imazapyr - EPA Reg. No. 241-346) and a non-ionic surfactant. This mix is effective almost any time during the growing season on a variety of woody plants.

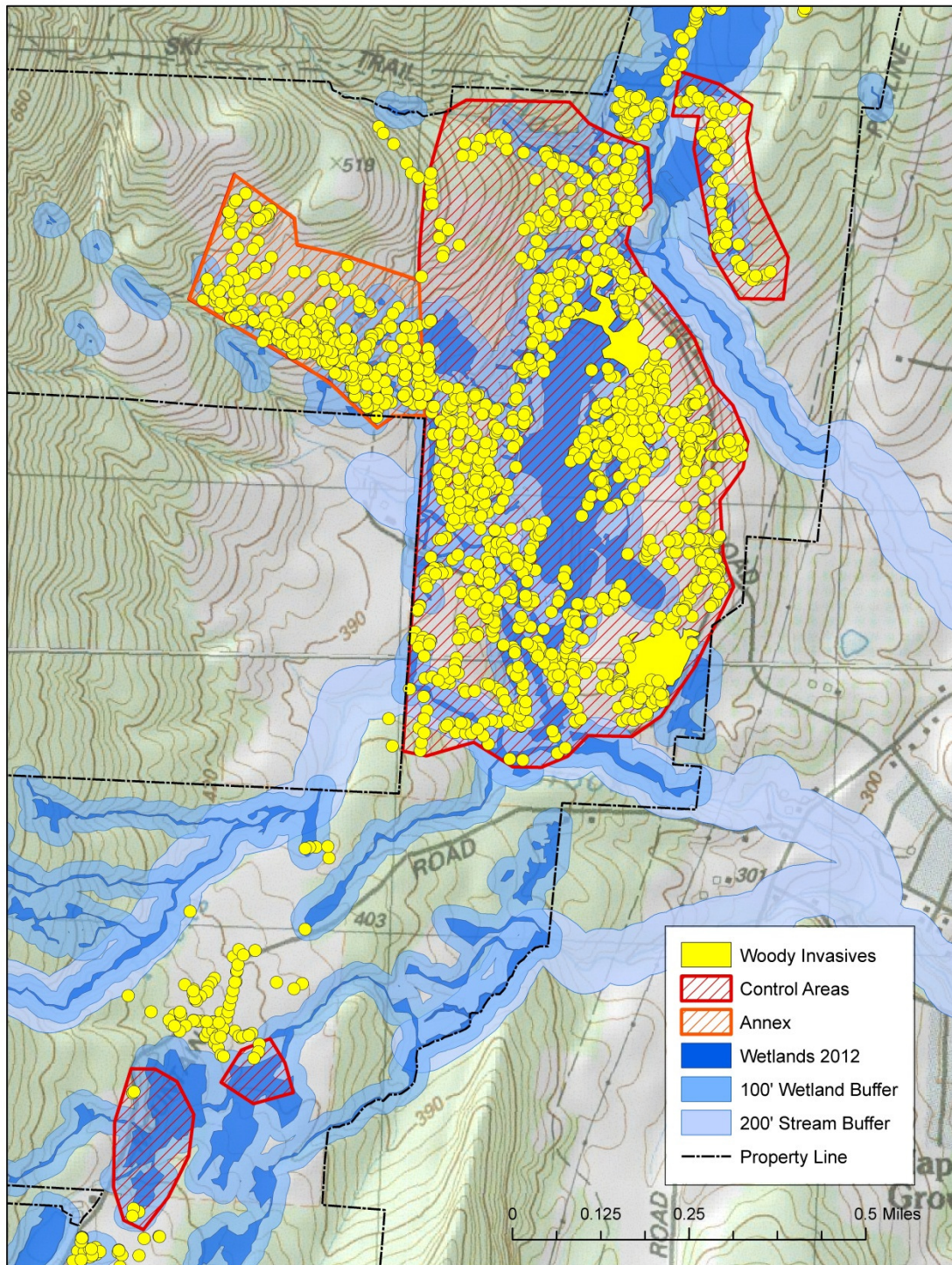


Figure 10. Woody invasive plant distribution, showing spatial relationship with wetlands and transition zones.