

# Phragmites Control on Town Lands

## 2014 Report & 2015 Recommendations

prepared for Charlotte Invasives Collaborative  
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November 11, 2014

### Summary

In 2014, The Charlotte Invasives Collaborative ( CHIC ) identified 12 phragmites infestation sites along Charlotte roadways. While there are likely more sites within the town, we believe mitigation and eventual eradication of these infestation sites is possible. Combined with improved ROW management by town and state road crews, this early detection investment will be effective in stemming the risk that phragmites pose to the health of Charlotte's wetlands.

Landowner outreach was completed for each site, which explained the nature of the problem, proposed treatments, and secured permission.

Consistent with the nature of phragmites, each site was classified as a wetland by the state, therefore consent of the wetlands division was required for each. For each of the sites 1-10 on the Phragmites locator map, we created a site map, site assessment report, and treatment plan. This documentation provides the guidance for mitigation efforts and served as the basis for wetlands division approval.

Over the course of the summer, the sites 2, 4, 5, 6, 7, and 10 were treated. Sites 1,3, 8, 9, 11, and 12 were not treated due to resource and timing constraints.

Treatment protocols were informed by industry standards and field work with Adirondack Park Invasive Plant Program (APIPP). While we are confident that the methods employed will yield the desired results, we will not have conclusive evidence until early summer 2015.

The following tables detail the treatments performed in 2014 and recommended follow-up for 2015 and 2016.

### Work Performed (by site) 2014/Proposed Work 2015

| Site | Status   | 2014 work (hrs expended)  | 2015 proposed work (hrs est)  |
|------|--|---|---|
| 1    | (Rt 7 and Ferry Rd)<br>No treatment performed. | Site assessment, VT Wetlands approval secured<br><br>Permit - 2 hrs<br>Outreach - 2 hrs<br>Treatment/FW - | Complete permitting, cut in June, and treat<br><br>Permit - 2 hrs<br>Outreach -<br>Treatment/FW - 4 hrs |

| Site | Status  | 2014 work (hrs expended)  | 2015 proposed work (hrs est)  |
|------|---|---|---|
| 2    | (Town Hall) initial treatment completed   | Site assessment, approval, cut and treated<br>Permit - 1:30 hrs<br>Outreach - 2 hrs<br>Treatment/FW - 1:25 hrs          | Mow thatch, spot treat as needed<br>Permit -<br>Outreach -<br>Treatment/FW - 1:30 hrs                 |
| 3    | (LeBouf, Rt7 ROW) No treatment performed.   | Site assessment, VT Wetlands approval secured<br>Permit - 2 hrs<br>Outreach - 2 hrs<br>Treatment/FW -                   | Complete permitting, cut in June and treat<br>Permit - 2 hrs<br>Outreach -<br>Treatment/FW - 3:30 hrs |
| 4/5  | (Rt 7 town garage) initial treatment completed                                    | Site assessment, approval, treated<br>Permit - 1:30 hrs<br>Outreach - 2 hrs<br>Treatment/FW - 1:40 hrs                  | spot treat as needed<br>Permit -<br>Outreach -<br>Treatment/FW - :30 hrs                              |
| 6    | (Lake s of Converse Bay Rd, west side) initial treatment completed.               | Site assessment, approval, treated<br>Permit - 2 hrs<br>Outreach - 2 hrs<br>Treatment/FW - 4:30 hrs                     | Spot treat as needed<br>Permit -<br>Outreach -<br>Treatment/FW - :30 hrs                              |
| 7    | (Lake s of Converse Bay Rd, east side) initial treatment applied to 50% of stand. | Site assessment, approval, cut spray lanes treated 50%<br>Permit - 2 hrs<br>Outreach - 2 hrs<br>Treatment/FW - 1:40 hrs | Cut remainder in June, and treat<br>Permit -<br>Outreach -<br>Treatment/FW - 1:30 hrs                 |
| 8    | (Lake s of Ferry Rd, east side) no treatment performed                            | Site assessment, VT Wetlands approval secured<br>Permit - 1:30 hrs<br>Outreach - 2 hrs<br>Treatment/FW -                | Cut in June, and treat<br>Permit -<br>Outreach -<br>Treatment/FW - 1:45 hrs                           |

| Site | Status   | 2014 work (hrs expended)   | 2015 proposed work (hrs est)   |
|------|--|--|--|
| 9    | (Spear Street) no treatment performed  | Site assessment, VT Wetlands approval secured<br><br>Permit - 1:30 hrs<br>Outreach - 2 hrs<br>Treatment/FW - | Cut in June, and treat<br><br>Permit - 1:30 hrs<br>Outreach -<br>Treatment/FW - 1:30 hrs   |
| 10   | (Spear Street, by covered bridge) initial treatment applied to 50% of stand. | Site assessment, approval, treated 50%<br><br>Permit - 2 hrs<br>Outreach - 2 hrs<br>Treatment/FW - 4 hrs     | Treat remainder of stand<br><br>Permit -<br>Outreach -<br>Treatment/FW - 2:30 hrs  |
| 11   | (Prindle) no treatment performed   | Landowner permission sought<br><br>Permit -<br>Outreach - 2 hrs<br>Treatment/FW -                            | Secure LO permission, site assessment, wetlands approval, cut and treat<br><br>Permit - 1:30 hrs<br>Outreach -<br>Treatment/FW - :45 hrs |
| 12   | (Prindle) no treatment performed   |  | Secure LO permission, site assessment, wetlands approval, cut and treat<br><br>Permit - 1:30 hrs<br>Outreach -<br>Treatment/FW - :45     |

### Hours Expended 2014

| Individual         | Treatment/Field Work | Field Work Support | Permitting   | Organization/Outreach |
|--------------------|----------------------|--------------------|--------------|-----------------------|
| Bob Hyams          | 13:15                |                    | 15:30        | 2                     |
| Sue Smith          |                      | 4:45               |              | 20                    |
| Lewis Creek Assoc. |                      |                    |              | 20                    |
| <b>Totals</b>      | <b>13:15</b>         | <b>4:45</b>        | <b>15:30</b> | <b>42</b>             |

### Hours Anticipated 2015

| Individual         | Treatment/Field Work | Field Work Support | Permitting | Organization/Out reach |
|--------------------|----------------------|--------------------|------------|------------------------|
| Bob Hyams          | 19                   |                    | 6          | 2                      |
| Sue Smith          |                      | 6                  |            | 4                      |
| Lewis Creek Assoc. |                      |                    |            | 4                      |
| <b>Totals</b>      | <b>19</b>            | <b>6</b>           | <b>6</b>   | <b>8</b>               |

### Hours Anticipated 2016

| Individual        | Treatment/Field Work | Field Work Support | Permitting | Organization/Out reach |
|-------------------|----------------------|--------------------|------------|------------------------|
| Bob Hyams         | 6                    |                    |            | 2                      |
| Sue Smith         | 3                    | 3                  |            | 4                      |
| Lewis Creek Assoc |                      |                    |            | 4                      |
| <b>Totals</b>     | <b>9</b>             | <b>3</b>           |            | <b>8</b>               |

Notes

- Sites 6 and 10 are characterized, by CHIC and Wetlands Division, as intact, diverse wetland systems, that warrant spot-treatment of phragmites. The method chosen is a ‘swipe’ of individual plants. This is a time consuming process, but it effectively eliminates the risk of overspray, protecting native vegetation. Spot-treatment alternatives will be explored in the off season to see if a more efficient option can be identified.

- Sites 1 and 3 are both are large, dense sites. Permitting will be completed this off-season. They will require some spot-treatment on fringes.

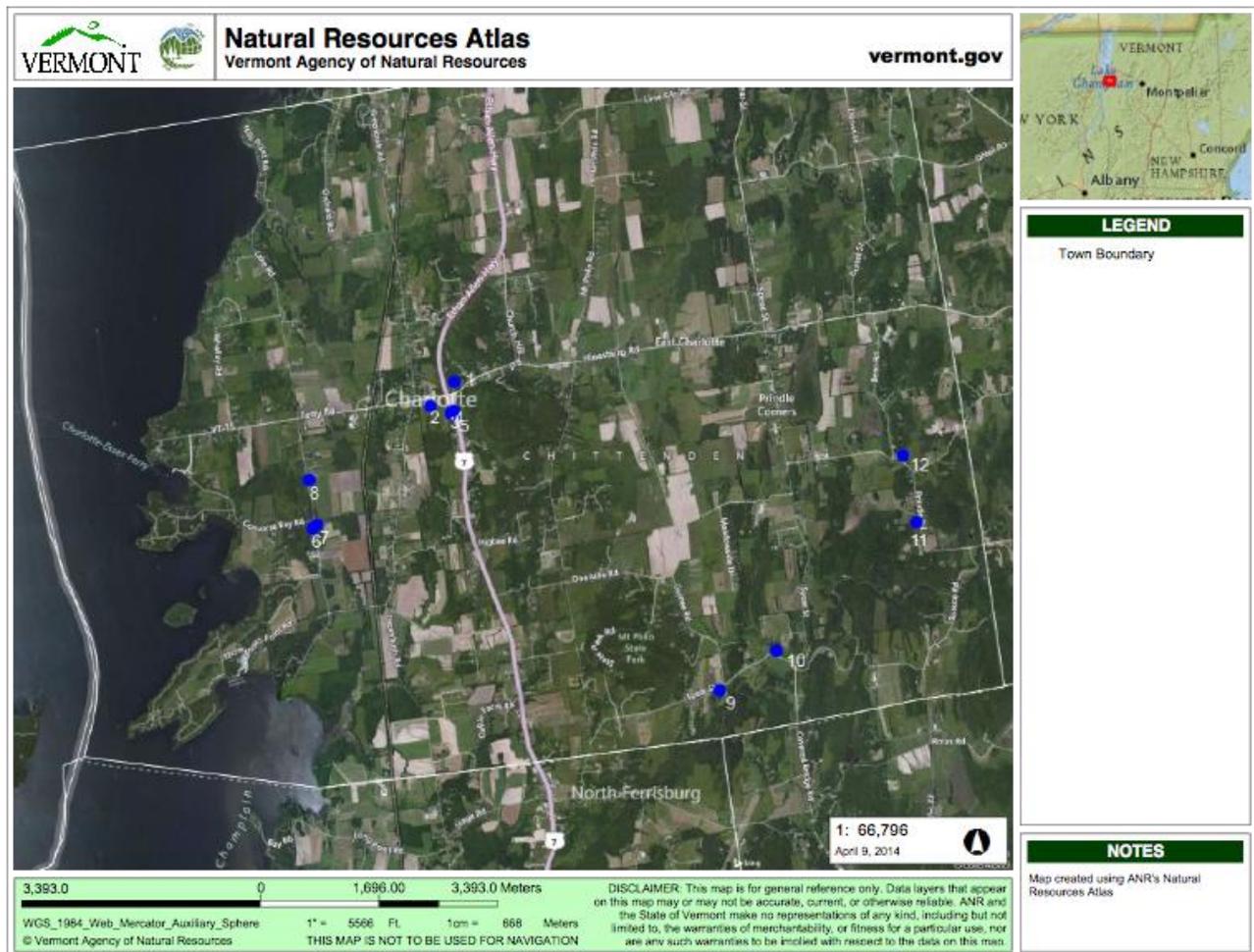
- Based on 2014 experience and results, protocols will be reviewed and modified as warranted to optimize efficacy and efficiency.

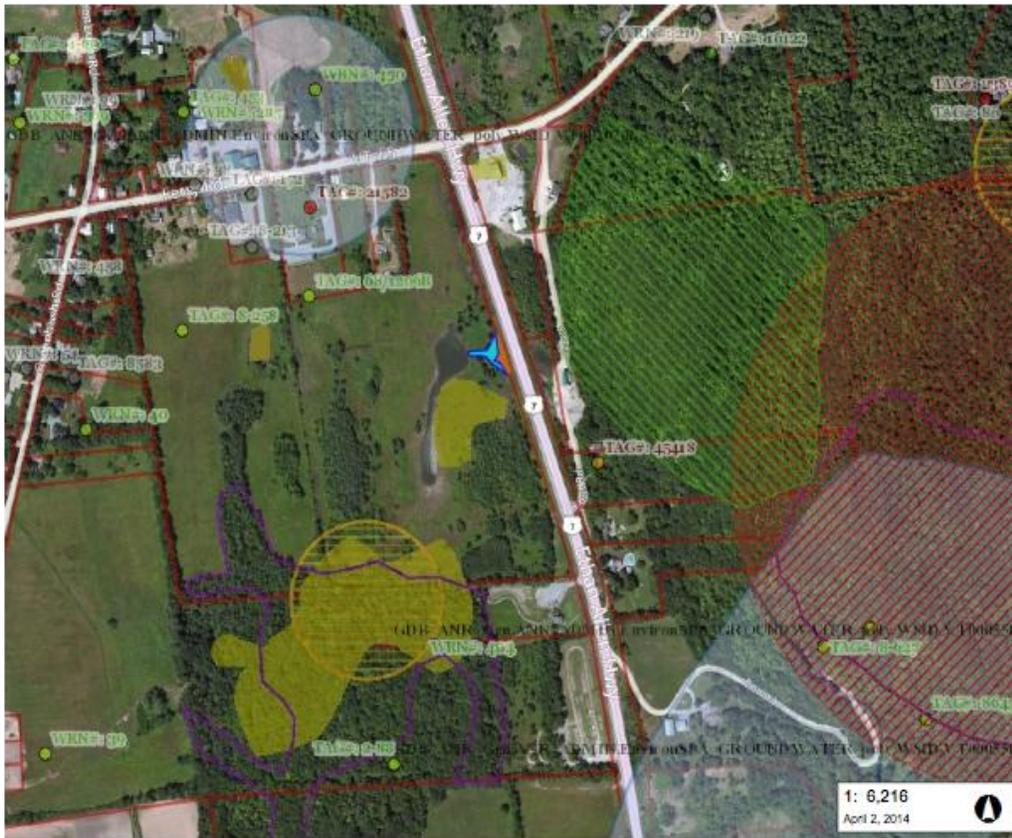
**FYE 16, 17 Budget Recommendations:** It is recommended that the town budget for treatment and field work in 2015 and 2016. Supplies, permitting and outreach will continue to be provided as in-kind donations.

| Year          | Treatment/FW                   | In-Kind         |
|---------------|--------------------------------|-----------------|
| 2014 (actual) | 13:15 hrs@ 50/hr= <b>\$662</b> | <b>62 hours</b> |
| 2015          | 19hrs @ 50/hr = <b>\$950</b>   | <b>20 hours</b> |
| 2016          | 9 hrs @ 50/hr = <b>\$450</b>   | <b>11 hours</b> |

**Figures:**

- Locator Map
- Maps (2) Site #3
- Site Assessment #3
- Treatment Plan





**LEGEND**

- Rare Threatened Endangered
  - Threatened or Endangered
  - Rare
- Significant Natural Community
- Uncommon Species and Other
  - Animal
  - Plant
  - Natural Community
- Wetlands - VSWI
  - Class 1 Wetland
  - Class 2 Wetland
- Wetlands - VSWI Advisory Lay
- Private Wells
  - GPS Location: Field Located with C
  - Screen Digitized
  - E911 Address
  - Unknown
  - Well/Well/Clarion
- GroundWaterSPA
  - ACTIVE
  - PROPOSED
- Parcels (where available)
- Town Boundary

**NOTES**

Map created using ANR's Natural Resources Atlas

316.0 0 158.00 316.0 Meters  
 WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere 1" = 518 Ft 1cm = 62 Meters  
 © Vermont Agency of Natural Resources THIS MAP IS NOT TO BE USED FOR NAVIGATION

DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. ANR and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.

1: 6,216  
 April 2, 2014



**LEGEND**

- Wetlands - VSWI
- Class 1 Wetland
  - Class 2 Wetland

**NOTES**

Map created using ANR's Natural Resources Atlas

39.0 0 20.00 39.0 Meters  
 WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere 1" = 65 Feet 1cm = 8 Meters  
 © Vermont Agency of Natural Resources THIS MAP IS NOT TO BE USED FOR NAVIGATION

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# Site Assessment

## Phragmites 3 Rt 7

Property Owner: estate of Richard LeBoeuf, Shirley Bruce - trustee

### Location

- street address/GPS: 213 Ferry Road, Charlotte, VT 44-16'55N 73-09'16W
- legal boundaries: Charlotte property ID 00061-0251
- adjoining lands (private, public, easements, row): eastern edge of property falls within right-of-way for VT State Route 7.
- site access: West side of Rt 7, .15 miles south of Ferry Road intersection

### Enduring Features

Geology; glaciolacustrine deposit

Soils: Livingston Clay (Lh)

Surface waters: headwaters of Thorp Brook, which discharges to Lake Champlain in the Thorp/Kimball Wetlands. At one point in its history, a section of this large wetland was dredged, resulting in the creation of the adjacent open water body, identified as a Rare Landscape Feature by Vermont Biodiversity Project.

Wetlands: the adjacent wetland just south of site is identified by the Vermont State Wetlands Inventory as Class 2.

### Land Cover

Description: The parcel is dominated by a sedge meadow/cattail marsh complex. The infestation occupies the margin between the raised, sloping highway shoulder and the open water of the marsh.

Natural Communities associated with Livingston Soil Series

NC1: Wet Clayplain forest variant (p175)

NC2: Alder swamp (p379)

NC3: Red maple - black ash swamp (p265)

Natural Heritage Review

Mesic Clayplain Forest (S2, ID: 2132) is found 300 meters southwest of site

### Vegetation

Invasive Species Present:

- Phragmites: infestation of concern is the stand of *Phragmites australis* approximately .25 acres, .11 acres dense monoculture core.
- Japanese Honeysuckle: Honeysuckle is found scattered throughout in the parcel, in very low densities, between the road and open water.
- Reed Canary Grass: it is present, has not been quantified