

Polatin Ecological Services, LLC

Habitat Restoration & Management of Natural Areas

May 22nd, 2014

Sarah Porter
Department of Environmental Stewardship
City Hall
133 William Street
New Bedford, MA 02740

Proposal for Invasive Plant Management Services at Palmers Island, New Bedford, MA

Outlined below is an estimated budget for services associated with managing invasive plants, poison ivy and clematis on Palmers Island. I visited the site with you on March 21st, 2014 at which time I evaluated the site conditions that inform this proposal.

All work will be done to the specifications outlined in the Request for Proposals and the Order of Conditions issued by the conservation commission.

Proposed Services and Costs

- *Task 1.* Mow dense phragmites (#2 in RFP) and clematis (#3 in RFP) areas (late June 2014). Prior to starting work we will flag individual native shrubs within the mapped clematis area. We will use brush saws with metal blades to cut away clematis and bittersweet around native shrubs. We will mow the phragmites (interspersed with dense poison ivy) and clematis areas with a tracked skid steer with a brush mower mounted to the front. This equipment will protect the operator from the extreme hazard of mowing poison ivy. The machine has enough horse power to perform the work well and is categorized in the low ground pressure category (3.3 pounds per square inch). Another benefit is that the mower can be raised and lowered on the loader which makes it effective in a dense phragmites stand such as that occurring on the site. The mower will be used very carefully in areas of native shrubs. We expect that the mowing phase can be accomplished within one well-timed tidal cycle. \$2,800.00 (\$1,540.00 for phragmites area and \$1,260.00 for clematis/bittersweet area)
- *Task 2.* Initial herbicide application (September 2014). Our crew will use backpack sprayers to foliar spray phragmites (#2 in RFP), bittersweet, clematis (#3 in RFP), poison ivy (#1 in RFP) and cow parsnip (#1 in RFP). Rodeo herbicide will be used for the foliar application. Careful attention will need to be observed to wind speed. We will use a drift control agent and also mobilize for dawn and dusk intervals when wind speeds tend to be low. \$5,200.00 (\$364.00 for trail area, \$2,756.00 for phragmites area, \$2,080.00 for clematis/bittersweet area).
- *Task 3.* Cut and haul invasive vines and cow parsnip (Winter 2014). Our crew will cut invasive vines (clematis and bittersweet) and cow parsnip and haul them to a dumpster supplied by the City of New Bedford and placed on the Hurricane Barrier access road. \$2,400.00.

- *Task 4.* Follow-up herbicide application (September 2015) using the targeted herbicide application methods described below. \$3,000.00 (\$210.00 for trail area, \$1,590.00 for phragmites area, \$1,200.00 for clematis/bittersweet area).
- *Task 5.* Follow-up herbicide application (September 2016) using targeted methods. \$1,200.00 (\$84.00 for trail area, \$636.00 for phragmites area, \$480.00 for clematis/bittersweet area).

Total estimated budget is **\$15,200.00**

Costs are calculated using the following rates: \$35/hr. for crew drive time from company headquarters in Gill, MA; \$75/hr. labor per restoration technician working on the project (Massachusetts licensed pesticide applicator); mileage rate = \$0.56/mile (2014 IRS mileage reimbursement rate) (roundtrip mileage between Gill Headquarters and the New Bedford project site is 250 miles); herbicide materials estimated at cost plus 5% to account for freight/delivery costs.. We will provide an invoice at the completion of each task with the expectation of payment within 30 days.

Targeted Herbicide Application Method

We use targeted methods when appropriate in order to assure that there is little to no damage to non-target native plants that are interspersed with phragmites. The following is a brief description of each method:

1. The “cut and drip” method: Each phragmites stem is cut below a node on the stem. One drop of a solution of wetland-approved herbicide with water, and 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.
2. The “glove” technique: To conduct 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. The applicator moistens the glove from the backpack sprayer into the glove and proceeds to wipe each stem and leaf of the individual phragmites or other invasive plant. Though labor intensive, the technique limits herbicide exposure to non-target plants.
3. Cut stem treatment: After the woody invasive plant (bittersweet) is cut, the applicator applies a mix of 50% Rodeo and water topically to the cambium layer of the cut stem.

Success Criteria

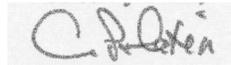
Objective: 80% control resulting from 2014 series of treatments; 95% resulting from 2015 follow-up methods; and 99% control from 2016 follow-up. We will establish several photo monitoring plots prior to management work and will monitor the results of treatments each year over the course of the project. Our work is guaranteed to meet the stated success criteria.

Stewardship & Maintenance

Invasive plant management requires a serious commitment and will need to be ongoing in order to protect your investment in management. To keep the phragmites and other invasive plants out of the area for the long term it will be necessary to watch the area closely by scouting for new patches and individual plants, even after the outlined treatment. Options for managing invasive plants after the initial three years usually consist of hand pulling, spot herbicide spraying, and/or cutting.

If you have any questions, please call me at 413-367-5292 or email me at chris@polatineco.com.

Thank you,



Chris Polatin,
Company Manager & Habitat Restoration Specialist

We maintain the following insurance policies:

- General liability
- Workers compensation
- Auto

We have a crew of six licensed herbicide applicators who are experienced in using herbicides safely and judiciously in a targeted manner, and who are thoroughly trained in invasive plant identification.