

Alburgh Dunes State Park **Invasive Plant Management Project**

Prepared by Tom Groves August 1, 2018

VT Pesticide Applicators License #1208-4955

Invasive Plant Management Plan

Overview

Control treatment of exotic invasive plant common reed (*Phragmites australis*) at Alburgh Dunes State Park, Alburgh, VT.

- Grid and treat 22 mapped locations from Coon Point entrance to Poor Farm Rd. alternate entrance for invasive plant, *Phragmites*.
- Chemical treatment will take place during flowering time (September 2018)
- Use wetland approved glyphosate-based product Rodeo® and non-ionic surfactant, Aquachem 90® and/or Thinvert® deposition aid
- Spill prevention
- Notify public at entrances to park with signage

Methods

Crew members will grid, on transects to the extent of the *Phragmites* infestation using either the cut stump method, “bloody glove” technique, or a foliar treatment. All treatments will use the wetland approved glyphosate formulation Rodeo (EPA Reg. No. 62719-324). Depending on the density of the plants and the number of native, desirable species present a judgement call will be made on which method to use. In some cases, more than one method will be used on each unit. This is due to densities not being consistent throughout each unit and a combination of methods may be the best approach for a successful treatment.

Foliar treatment methods – consists of a 5% - 7% Rodeo and water or Thinvert mixture and will only take place where application to open or standing water is low or non-existent and/or the density of the target plants are high enough to warrant this type of application.



Where *Phragmites* densities are high (76% - 100%), a high volume, low herbicide application can be made. This method covers both sides of the leaves, plus allows penetration to thick stands for a successful treatment. There is little adverse effect if a non-target plant gets hit a little due to their being very little herbicide present in the mix. A full coverage application is the only way treatment is successful. This method of application is done with a mist-blower (basically a leaf blower with a water attachment) or with a hydro-sprayer (a 50 gallon tank on a UTV).

For units where *Phragmites* densities are moderate, (26% - 75%) Rodeo will be applied with a 7% solution and Thinvert (a deposition aid). Thinvert allows more uniform application droplet size, which allows for a more targeted application. Thinvert also readily sticks to targeted leaf surfaces limiting dripping on non-target plants as would happen with a water application.

For densities below 26% *Phragmites* will be intermixed with a high amount of native, desirable species where spraying could be too detrimental to these plants. Due to the few number of *Phragmites* stems present in these areas, a more delicate approach will be used. The bloody glove and cut stump method are two ways to minimize and nearly eliminate over spray onto desirable species.

Cut-Stump method – consists of severing the plant stem and applying directly to the stem a mix of 50% Rodeo and 50% water mix. The cut stump application is done with a backpack and an application gun. This gun is able to fit inside the hollow stem and applies herbicide with little off target damage and little overspray. If the stems are too small for this method, they will be hand wiped.

Bloody Glove method – consists of the applicator using a chemical resistant glove covered by a cotton glove. Using a low volume backpack sprayer, the applicator sprays a 7% Rodeo and Thinvert (a paraffinic oil blend deposition aid) directly onto the cotton glove. After the solution is in the applicators hand it is then applied directly to the plant in an upward wiping motion.

A site visit is scheduled for August 21st, 2018, at 12 noon to confirm the location of sensitive plants and their identification for the crew foreman who will relay this information to the crew members before and while on site in September. In addition to this, it is the goal of the contractors performing the work to limit overspray, drift and damage to native vegetation for competition purposes and to ensure protection of threatened and endangered species present at site:

- *Cardamine dentata* (white cuckoo bitter-cress)
- *Lathyrus japonicus ssp. maritimus* (beach vetchling)
- *Artemisia campestris* (field wormwood)
- *Ammophila breviligulata ssp. champlainensis* (American beach grass)

Application Method by Site

Sites in this section have been grouped together based on plant density. The plant density will correspond to a specific treatment type and application rate of Rodeo.

Unit Number	Density	Herbicide/ %	Application Method
A, B, C	0-6%	Rodeo 7%/50%	Bloody Glove/Cut Stump
3, 14	6-25%	Rodeo 5% - 7%/50%	Bloody Glove/Backpacks
13, 15, 17	26-50%	Rodeo 5% -7%	Backpacks
1, 4, 5, 8, 10, 12, 19, 20, 22	51-75%	Rodeo 5% -7%	Backpacks
2, 7, 9, 16, 21	76-95%	Rodeo 2%	Mistblower
6, 11, 18	96-100%	Rodeo 2%	Mistblower

Spill Prevention/Clean Up

The contracted crew will ensure protection of water, public and sensitive habitats by transporting and storing chemicals while on site in chemical resistant drums stored in the secondary contamination catchment of a pickup truck. In the event of a spill, a spill kit will be present on site with kitty litter, PIG mats, shovels, and a contaminated soil containment vessel for removal of discharged chemicals of any kind.

In the event of a spill the required procedure will be followed where the contractor notifies the Department Spill Response Team hotline at 800-641-5005 as soon as the spill is known about as well as the Vermont Regulations for Control of Pesticides which require operators to immediately report pesticide accidents to the Vermont Agency of Agriculture at (802) 828-2431.

Protection of Public

Due to the park being open during the time of chemical treatment, signs at both ends of the treatment zone will be posted. Information displayed on signage will consist of the herbicide being used, herbicide re-entry interval of 4 hours, dates of treatment, phone number for crew foreman, company name, address, emergency phone number, map of locations being treated and location of nearest hospital.



Applications will be made early in the morning to the beach side of the park, where there's likely to be more public activity during the late morning and early afternoon. This will allow time for the herbicide to dry on the plants and applicators/public interaction while spraying will be limited.

For ease of treatment purposes and limiting exposure to applicators all herbicide mixtures are dyed blue. During treatment any plant with blue dye present it on it should be assumed to have been treated with chemical.