



CT DEEP #PMBR.02020  
NYS DEC# 13326  
CT HIC.0647669

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October 19, 2022

Meriam and Joel Smith  
10 Kies Road  
Killingly, CT 06239

Dear Meriam and Joel,

Thank you for your interest in All Habitat Services, LLC for invasive species management needs at your 10 Kies Rd property in Killingly, CT. Based on our site visit and the provided CT DEEP forester recommendations, we are pleased to offer the following proposal for your consideration.

Within your 33-acre property, several areas have been identified for invasive species management. The primary area of concern is the wetland forest stand (Stand 2) containing understory with dominant infestations of Japanese barberry (*Berberis thunbergii*), multiflora rose (*Rosa multiflora*), Oriental bittersweet (*Celastrus orbiculatus*), bush honeysuckles (*Lonicera spp.*), winged euonymus (*Euonymus alatus*), and Japanese stilt grass (*Microstegium vimineum*). The stonewall boundary around the house and fields and up to the forest edge is currently threatened by pressure from Japanese barberry (*Berberis thunbergii*), multiflora rose (*Rosa multiflora*), Oriental bittersweet (*Celastrus orbiculatus*), poison ivy (*Toxicodendron radicans*), bush honeysuckles (*Lonicera spp.*), winged euonymus (*Euonymus alatus*), Japanese stilt grass (*Microstegium vimineum*), Japanese knotweed (*Polygonium cuspidatum*), and wild grape vine (*Vitis riparia*). In addition, the fields to the north and east of the house that have been proposed for pollinator habitat conversion are currently a mix of orchard grasses and infestations of Japanese stilt grass (*Microstegium vimineum*). These areas range in density from low to moderate and will be managed using methods and chemical prescriptions based on the phenological differences of the plants.

Invasive shrub, tree and vine species colonize by root sprouts and seeds that are dispersed primarily by birds. They form dense stands in the understory of bottomland forests and exclude native plants, drastically altering wildlife habitat. In Stand 2, the best method of control for these species on wetland soils is with a selective spot spray application of a thin invert emulsion comprised of the aquatic labeled herbicides Roundup Custom® (Glyphosate) and Polaris AC Complete® (Imazapyr) at a rate of five gallons per acre to the target vegetation. As the herbicide contacts the foliage, it moves through the plant structures into the root system where it disrupts plant growth cycles. Application will be conducted on-foot with low-volume backpack sprayers to reduce drift and any off-target damage to native vegetation.

Along the stonewall, we suggest a thin invert emulsion foliar application with 8% Rodeo® (Glyphosate), 1% Polaris® (Imazapyr), and 0.5% Escort XP® (Metsulfuron methyl) at a rate of five gallons per acre to the target shrub and herbaceous vegetation. Tall growing or large diameter tree, shrub, and vine species such as Oriental bittersweet (*Celastrus orbiculatus*), bush

honeysuckles (*Lonicera spp.*), and winged euonymus (*Euonymus alatus*) will be controlled using basal bark applications of an herbicide with the active ingredient Triclopyr in an ester formulation, such as Garlon4®, mixed in a methylated seed oil carrier. This herbicide penetrates the bark and is translocated throughout the plant, killing the root system. This application is conducted using a low-volume backpack sprayer to wet the entire circumference of the bottom 12 inches of the stem.

To control infestations of Japanese stilt grass (*Microstegium vimineum*) and established grasses in the fields, we recommend a broadcast application of the broad spectrum herbicides Rodeo® (Glyphosate) and Plateau® (Imazapic). These herbicides will efficiently translocate throughout the plant, immediately arresting the growth cycle and limiting the extent of their above ground biomass. Application will be conducted using a UTV machine with a 50- gallon spray tank and low-pressure adjustable spray gun to treat the target areas. We must treat the fields with an herbicide application to ensure any existing grasses, noxious weeds and invasive species have been removed prior to pollinator habitat seeding. Once at least two broadcast herbicide treatments are complete, the entire area should be mowed and cleared of any small debris (i.e. rocks, roots, small branches, etc.) prior to seeding. Once all site preparation is completed, we will bring our GreenScape® seeder to the site in Fall 2024. The seeder is a multi-step system that aerates the soil, drills holes for the seed, and then drills the seed into the provided holes at a pre-set depth.

Based on the prescription we have developed and the density of target species within the management area, we have produced the following assessment of treatment costs.

<b>10 Kies Road Invasive Species Management 2 Year Plan &amp; Pricing</b>				
<b>Work Activity</b>	<b>Target Area</b>	<b>Acreage</b>	<b>Price Per Acre</b>	<b>Total Cost</b>
<b>2023</b>				
Selective Herbicide Application with Follow-up	Stand 2	6.5	\$880.00	\$5,720.00
Selective Herbicide Application with Follow-up	Stonewalls	0.2	\$880.00	\$176.00
<b>Total Cost 2023</b>				<b>\$5,896.00</b>
<b>2024</b>				
Selective Herbicide Application with Follow-up	Stand 2	6.5	\$640.00	\$4,160.00
Selective Herbicide Application with Follow-up	Stonewalls	0.2	\$640.00	\$128.00
Broadcast Herbicide Applications (2)	Fields	1.5 (2)	\$600.00	\$1,800.00
Site Preparation (Mowing, York raking, etc.)	Fields	1.5	\$1,800.00	\$2,700.00
*Conservation Drill Seeding	Fields	1.5	\$2,200.00	\$3,300.00
<b>Total Cost 2024</b>				<b>\$12,088.00</b>

\*Conservation drill seeding not inclusive of seed cost. Seed to be purchased by client in advance of scheduled seeding date (to be determined). Seed availability and prices are subject to changes.

We are confident that the treatment prescription and methods outlined above will provide the best control of the target species. The proposed prescriptions can be sequenced to coincide with specific management priorities. Follow up treatments will take place 4-6 weeks after the initial treatments as needed. Continued site monitoring in concurrence with best management practices will aid in producing the desired reduction of the target invasive species in the management areas.





It is a pleasure to have the opportunity to be considered for this project and we hope that this proposal meets with your approval. Please feel free to contact us again if we may be of any further assistance to you.

Best Regards,

David Roach PMCS.0003538  
General Manager  
All Habitat Services, LLC



**LEGEND**

-  Stand 2- Japanese Barberry Infestation (6.5 ac)
-  Stonewalls (0.2 ac)
-  Proposed Pollinator Habitat (1.5 ac)
-  Smith Property Boundary

