

56 DM

New Hampshire
Department of Agriculture,
Markets & Food

Lorraine S. Merrill, Commissioner

May 28, 2013

Her Excellency, Governor Margaret Wood Hassan
and the Honorable Council
State House
Concord, New Hampshire 03301

Dear Governor Hassan and Honorable Council:

REQUESTED ACTION

Authorize the New Hampshire Department of Agriculture, Markets and Food, Division of Pesticide Control to enter into a grant agreement with Merrimack County Conservation District, vendor #157734, for the *Control of Invasive Plants on Hopkinton Town Land*; for the period of Governor and Council approval through December 31, 2013 in the amount of \$7,750.00.
100% Other Funds - Integrated Pest Management Fund.

Funding is available in account, Integrated Pest Management, as follows:

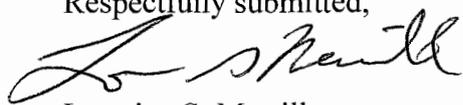
02-18-18-183010-21820000 INTEGRATED PEST MANAGEMENT

OBJECT		
<u>CLASS</u>	<u>ACCOUNT</u>	<u>FY 2013</u>
075-500590	Integrated Pest Mgmt	\$7,750

EXPLANATION

The New Hampshire Department of Agriculture, Markets and Food (NHDAMF), Division of Pesticide Control in fulfilling its responsibilities under the Integrated Pest Management (IPM) Program, RSA 430:50; to promote the principles of IPM and assist New Hampshire citizens to advance the practice of such principles, has reviewed the project, "*Control of Invasive Plants on Hopkinton Town Land*", and finds it exemplifies good practices associated with Integrated Pest Management. The research and educational aspects associated with this project and the efforts of the Merrimack County Conservation District is to identify management methods and establish detailed control plans for invasive upland plants that threaten native plants and habitats. The experience and results of this project serve the benefit of all citizens of New Hampshire. The attachment includes a summary of the project and the dollar amount associated with each component.

Respectfully submitted,



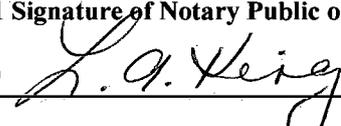
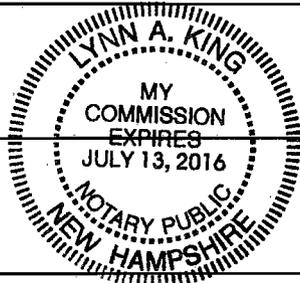
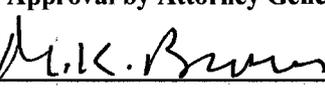
Lorraine S. Merrill
Commissioner

GRANT AGREEMENT

Subject: *Control of Invasive Plants on Hopkinton Town Land*

GENERAL PROVISIONS

1. IDENTIFICATIONS AND DEFINITIONS

1.1 State Agency Name New Hampshire Department of Agriculture, Markets & Food		1.2 State Agency Address 25 Capitol Street PO Box 2042 Concord, NH 03302	
1.3 Grantee Name Merrimack County Conservation District		1.4 Grantee Address 10 Ferry Street, Suite 211 Concord, NH 03301	
1.5 Effective Date May 1, 2013	1.6 Completion Date December 31, 2013	1.7 Audit Date January 31, 2014	1.8 Grant Limitation \$7,750
1.9 Grant Officer for State Agency David J. Rousseau		1.10 State Agency Telephone Number 603-271-3640	
1.11 Grantee Signature 		1.12 Name & Title of Grantee Signor PETER BLAKEMAN CHAIRMAN	
1.13 Acknowledgment: State of New Hampshire, County of <u>Merrimack</u> On <u>3/27/2013</u> , before the undersigned officer, personally appeared the person identified in block 1.12., or satisfactorily proven to be the person whose name is signed in block 1.11., and acknowledged that s/he executed this document in the capacity indicated in block 1.12.			
1.13.1 Signature of Notary Public or Justice of the Peace (Seal) 			
1.13.2 Name & Title of Notary Public or Justice of the Peace Lynn A. King Notary Public			
1.14 State Agency Signature(s) 		1.15 Name/Title of State Agency Signor(s) Lorraine S. Merrill, Commissioner	
1.16 Approval by Attorney General's Office (Form, Substance and Execution) By:  Attorney, On: <u>6/3/13</u>			
1.17 Approval by the Governor and Council By: _____ On: / /			

2. **SCOPE OF WORK.** In exchange for grant funds provided by the state of New Hampshire, acting through the agency identified in block 1.1 (hereinafter referred to as "the State"); pursuant to RSA 21-O, the Grantee identified in block 1.3 (hereinafter referred to as "the Grantee"), shall perform that work identified and more particularly described in the scope of work attached hereto as EXHIBIT A (the scope of work being referred to as "the Project").

3. **AREA COVERED.** Except as otherwise specifically provided for herein, the Grantee shall perform the Project in, and with respect to, the state of New Hampshire.

4. **EFFECTIVE DATE; COMPLETION OF PROJECT.**

4.1 This Agreement, and all obligations of the parties hereunder, shall become effective on the date in block 1.5 or on the date of approval of this Agreement by the Governor and Council of the State of New Hampshire whichever is later (hereinafter referred to as "the Effective Date").

4.2 Except as otherwise specifically provided for herein, the Project, including all reports required by this Agreement, shall be completed in ITS entirety prior to the date in block 1.6 (hereinafter referred to as "the Completion Date").

5. **GRANT AMOUNT; LIMITATION ON AMOUNT; VOUCHERS; PAYMENT.**

5.1 The Grant Amount is identified and more particularly described in EXHIBIT B, attached hereto.

5.2 The manner of, and schedule of payment shall be as set forth in EXHIBIT B.

5.3 In accordance with the provisions set forth in EXHIBIT B, and in consideration of the satisfactory performance of the Project, as determined by the State, and as limited by subparagraph 5.5 of these general provisions, the State shall pay the Grantee the Grant Amount. The State shall withhold from the amount otherwise payable to the Grantee under this subparagraph 5.3 those sums required, or permitted, to be withheld pursuant to N.H. RSA 80:7 through 7-c.

5.4 The payment by the State of the Grant amount shall be the only, and the complete, compensation to the Grantee for all expenses, of whatever nature, incurred by the Grantee in the performance hereof, and shall be the only, and the complete, compensation to the Grantee for the Project. The State shall have no liabilities to the Grantee other than the Grant Amount.

5.5 Notwithstanding anything in this Agreement to the contrary, and notwithstanding unexpected circumstances, in no event shall the total of all payments authorized, or actually made, hereunder exceed the Grant limitation set forth in block 1.8 of these general provisions.

6. **COMPLIANCE BY GRANTEE WITH LAWS AND REGULATIONS.**

In connection with the performance of the Project, the Grantee shall comply with all statutes, laws, regulations, and orders of federal, state, county, or municipal authorities which shall impose any obligations or duty upon the Grantee, including the acquisition of any and all necessary permits.

7. **RECORDS AND ACCOUNTS.**

7.1 Between the Effective Date and the date seven (7) years after the Completion Date the Grantee shall keep detailed accounts of all expenses incurred in connection with the Project, including, but not limited to, costs of administration, transportation, insurance, telephone calls, and clerical materials and services. Such accounts shall be supported by receipts, invoices, bills and other similar documents.

7.2 Between the Effective Date and the date seven (7) years after the Completion Date, at any time during the Grantee's normal business hours, and as often as the State shall demand, the Grantee shall make available to the State all records pertaining to matters covered by this Agreement. The Grantee shall permit the State to audit, examine, and reproduce such records, and to make audits of all contracts, invoices, materials, payrolls, records or personnel, data (as that term is hereinafter defined), and other information relating to all matters covered by this Agreement. As used in this paragraph, "Grantee" includes all persons, natural or fictional, affiliated with, controlled by, or under common ownership with, the entity identified as the Grantee in block 1.3 of these general provisions.

8. **PERSONNEL.**

8.1 The Grantee shall, at its own expense, provide all personnel necessary to perform the Project. The Grantee warrants that all

personnel engaged in the Project shall be qualified to perform such Project, and shall be properly licensed and authorized to perform such Project under all applicable laws.

8.2 The Grantee shall not hire, and it shall not permit any subcontractor, subgrantee, or other person, firm or corporation with whom it is engaged in a combined effort to perform such Project, to hire any person who has a contractual relationship with the State, or who is a State officer or employee, elected or appointed.

8.3 The Grant officer shall be the representative of the State hereunder. In the event of any dispute hereunder, the interpretation of this Agreement by the Grant Officer, and his/her decision on any dispute, shall be final.

9. **DATA; RETENTION OF DATA; ACCESS.**

9.1 As used in this Agreement, the word "data" shall mean all information and things developed or obtained during the performance of, or acquired or developed by reason of, this Agreement, including, but not limited to, all studies, reports, files, formulae, surveys, maps, charts, sound recordings, video recordings, pictorial reproductions, drawings, analyses, graphic representations, computer programs, computer printouts, notes, letters, memoranda, papers, and documents, all whether finished or unfinished.

9.2 Between the Effective Date and the Completion Date the Grantee shall grant to the State, or any person designated by it, unrestricted access to all data for examination, duplication, publication, translation, sale, disposal, or for any other purpose whatsoever.

9.3 No data shall be subject to copyright in the United States or any other country by anyone other than the State.

9.4 On and after the Effective Date, all data, and any property which has been received from the State or purchased with funds provided for that purpose under this Agreement, shall be the property of the State, and shall be returned to the State upon demand or upon termination of this Agreement for any reason, whichever shall first occur.

9.5 The State, and anyone it shall designate, shall have unrestricted authority to publish, disclose, distribute and otherwise use, in whole or in part, all data.

10. **CONDITIONAL NATURE OF AGREEMENT.**

Notwithstanding anything in this Agreement to the contrary, all obligations of the State hereunder, including without limitation, the continuance of payments hereunder, are contingent upon the availability or continued appropriation of funds, and in no event shall the State be liable for any payments hereunder in excess of such available or appropriated funds. In the event of a reduction or termination of those funds, the State shall have the right to withhold payment until such funds become available, if ever, and shall have the right to terminate this Agreement immediately upon giving the Grantee notice of such termination.

11. **EVENT OF DEFAULT; REMEDIES.**

11.1 Any one or more of the following acts or omissions of the Grantee shall constitute an event of default hereunder (hereinafter referred to as "Events of Default"):

11.1.1 failure to perform the Project satisfactorily or on schedule; or

11.1.2 failure to submit any report required hereunder; or

11.1.3 failure to maintain, or permit access to, the records required hereunder; or

11.1.4 failure to perform any of the other covenants and conditions of this Agreement.

Grantee Initial

11.2 Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:

11.2.1 give the Grantee a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) days from the date of the notice; and if the Event of Default is not timely remedied, terminate this Agreement, effective two (2) days after giving the Grantee notice of termination; and

11.2.2 give the Grantee a written notice specifying the Event of Default and suspending all payments to be made under this Agreement and ordering that the portion of the Grant Amount which would otherwise accrue to the grantee during the period from the date of such notice until such time as the State determines that the Grantee has cured the Event of Default shall never be paid to the Grantee; and

11.2.3 set off against any other obligation the State may owe to the Grantee any damages the State suffers by reason of any Event of Default; and

11.2.4 treat the agreement as breached and pursue any of its remedies at law or in equity, or both.

12. TERMINATION.

12.1 In the event of any early termination of this Agreement for any reason other than the completion of the Project, the Grantee shall deliver to the Grant Officer, not later than fifteen (15) days after the date of termination, a report (hereinafter referred to as the "Termination Report") describing in detail all Project Work performed, and the Grant Amount earned, to and including the date of termination.

12.2 In the event of Termination under paragraphs 10 or 12.4 of these general provisions, the approval of such a Termination Report by the State shall entitle the Grantee to receive that portion of the Grant amount earned to and including the date of termination.

12.3 In the event of Termination under paragraphs 10 or 12.4 of these general provisions, the approval of such a Termination Report by the State shall in no event relieve the Grantee from any and all liability for damages sustained or incurred by the State as a result of the Grantee's breach of its obligations hereunder.

12.4 Notwithstanding anything in this Agreement to the contrary, either the State or except where notice default has been given to the Grantee hereunder, the Grantee, may terminate this Agreement without cause upon thirty (30) days written notice.

13. CONFLICT OF INTEREST. No officer, member or employee of the Grantee and no representative, officer of employee of the State of New Hampshire or of the governing body of the locality or localities in which the Project is to be performed, who exercises any functions or responsibilities in the review or approval of the undertaking or carrying out of such Project, shall participate in any decision relating to this Agreement which affects his or her personal interests or the interest of any corporation, partnership, or association in which he or she is directly or indirectly interested, nor shall he or she have any personal or pecuniary interest, direct or indirect, in this Agreement or the proceeds thereof.

14. GRANTEE'S RELATION TO THE STATE. In the performance of this Agreement, the Grantee, its employees, and any subcontractor or subgrantee of the Grantee are in all respects independent contractors, and are neither agents nor employees of the State. Neither the Grantee nor any of its officers, employees, agents, members, subcontractors or subgrantees, shall have authority to bind the State nor are they entitled to any of the benefits, worker's compensation or emoluments provided by the State to its employees.

15. ASSIGNMENT AND SUBCONTRACTS. The Grantee shall not assign, or otherwise transfer any interest in this Agreement without the prior written consent of the State. None of the Project Work shall be subcontracted or subgranted by the Grantee other than as set forth in Exhibit A without the prior written consent of the State.

16. INDEMNIFICATION. The Grantee shall defend, indemnify and hold harmless the State, its officers and employees, from and against any and all losses suffered by the State, its officers and employees, and any and all claims, liabilities or penalties asserted against the State, its officers and employees, by or on behalf of any person, on account of, based on, resulting from, arising out of (or which may be claimed to arise out of) the acts or omissions of the Grantee of Subcontractor, or subgrantee or other agent of the Grantee.

Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant shall survive the termination of this agreement.

17. INSURANCE AND BOND.

17.1 The Grantee shall, at its sole expense, obtain and maintain in force, or shall require any subcontractor, subgrantee or assignee performing Project work to obtain and maintain in force, both for the benefit of the State, the following insurance:

17.1.1 statutory worker's compensation and employees liability insurance for all employees engaged in the performance of the Project, and

17.1.2 comprehensive public liability insurance against all claims of bodily injuries, death or property damage, in amounts not less than \$2,000,000 for bodily injury or death any one incident, and \$500,000 for property damage in any one incident; and

17.2 The policies described in subparagraph 17.1 of this paragraph shall be the standard form employed in the State of New Hampshire, issued by underwriters acceptable to the State, and authorized to do business in the State of New Hampshire. Each policy shall contain a clause prohibiting cancellation or modification of the policy earlier than ten (10) days after written notice has been received by the State.

18. WAIVER OF BREACH. No failure by the State to enforce any provisions hereof after any Event of Default shall be deemed a waiver of its rights with regard to that Event, or any subsequent Event. No express waiver of any Event of Default shall be deemed a waiver of any provisions hereof. No such failure or waiver shall be deemed a waiver of the right of the State to enforce each and all of the provisions hereof upon any further or other default on the part of the Grantee.

19. NOTICE. Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses first above given.

20. AMENDMENT. This agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto and only after approval of such amendment, waiver or discharge by the Governor and Council of the State of New Hampshire.

21. CONSTRUCTION OF AGREEMENT AND TERMS. This Agreement shall be construed in accordance with the law of the State of New Hampshire, and is binding upon and inures to the benefit of the parties and their respective successors and assignees. The captions and contents of the "subject" blank are used only as a matter of convenience, and are not to be considered a part of this Agreement or to be used in determining the intent of the parties hereto.

22. THIRD PARTIES. The parties hereto do not intend to benefit any third parties and this Agreement shall not be construed to confer any such benefit.

23. ENTIRE AGREEMENT. This Agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire agreement and understanding between the parties, and supersedes all prior agreements and understandings relating hereto.

Grantee Initial

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Exhibit A
Scope of Services

The Merrimack County Conservation District will conduct the project as described in Exhibit D, **Control of Invasive Plants on Hopkinton Town Land**, and further the principles and practice of Integrated Pest Management in regard to the control of upland invasive plants in the State of New Hampshire.

The Project Director, Stacy Luke, shall submit a final narrative no more than 30 (thirty) days after the end of the project.

The final narrative shall include:

- a. a detailed itemized budget;
- b. the number of participants involved in program;
- c. a complete portfolio of outreach and educational materials;
- d. an evaluation of the effectiveness of the project; and
- g. the overall success of the project.

Exhibit B
Grant Amount, Method of Payment, and Payment Terms

Payment of this grant will be made in the entire sum of \$7,750, upon approval of the agreement by the Governor and New Hampshire Executive Council. Upon approval, the New Hampshire Department of Agriculture, Markets & Food will process the payment request through the accounting system and mail the check directly to the grantee; which could take up to thirty (30) days. Payment is to be made for items described in the original Integrated Pest Management Project Proposal, Control of Invasive Plants on Hopkinton Town Land Project Itemized Budget.

Total payments under this project shall not exceed \$7,750 for the period ending December 31, 2013.

Unspent funds are to be refunded to the New Hampshire Department of Agriculture, Markets & Food.

Grantee Initial *SL*

**Exhibit C
Insurance Provision**

See attachment.

**Exhibit D
Project Proposal**

See attachment.

**Exhibit E
Certificate of Authority**

See attachment.

Grantee Initial BS

Certificate of Authority

I, Robert Larocque, Treasurer of the Merrimack County Conservation District
(name) (title) (business/organization)

do hereby certify that:

1. Peter Blakeman is the duly elected Chairman;
(name of person being certified) (title)
2. the Merrimack County Conservation District has agreed to accept funds to enter into a contract
(business/organization)
with the State of New Hampshire, Department of Agriculture, Markets & Food;
3. the Merrimack County Conservation District further authorizes the Chairman
(business/organization) (title from 1. above)
to execute any documents necessary for this contract;
4. this authorization has not been revoked, annulled, or amended in any manner whatsoever,
and remains in full force and effect as of the date hereof;
5. The following person has been appointed to and now occupies the office indicated above:
Peter Blakeman
(name of person being certified in 1. above, title)

IN WITNESS WHEREOF, I have hereunto set my hand as the Treasurer of the
(title)
Merrimack County Conservation District this 3 day of April, 2013
(Business/organization)

Robert Larocque
(signature)

Printed Name: Robert Larocque

State of New Hampshire
County of Merrimack

On this 3rd day of April, 2013 before me Lorna Wakefield the
undersigned officer, personally appeared Robert Larocque who
acknowledged him/herself to be the Treasurer of the Merrimack County
Conservation District being authorized so to do, executed the forgoing instrument for
the purpose therein contained.

In witness whereof, I have set my hand and official seal.

Lorna Wakefield
Justice of the Peace/Notary Public

(Seal)

Commission Expiration Date: Feb. 20, 2018



IPM GRANT APPLICATION



The following is the official application for Integrated Pest Management Program grant funds. Proposals must be typed and submissions made on this form with additional attachments if necessary. Deliver four (4) copies to the Division of Pesticide Control. Provide a complete list of all persons involved in the proposed project; include the names, addresses and phone numbers of the individuals.

The New Hampshire IPM Grant Fund is limited. Rewards are considered to those whose proposals most represent the spirit of the IPM Program and whose applications are received the soonest. Applications should be submitted to the Division of Pesticide Control no later than November 1. Be advised that complete processing time may exceed 90 days. Proposals will be reviewed twice annually. Those persons whose projects are selected to receive grant money will be required to complete a grant agreement before any distribution of funds. The grant agreement must include a complete, detailed, and itemized budget.

Project Title: Control of Invasive Plants on Hopkinton Town Land

Applicant's Organization: Merrimack County Conservation District

Contact Person: Stacy Luke, District Manager

Signature: *Stacy Luke*

Mailing Address: 10 Ferry Street, Suite 211

City Concord State NH Zip 03301

Telephone: day 603-223-6023 evening 603-254-9502

fax 603-223-6030 email info@merrimackccd.org

Starting and Ending Dates: Scheduled to be completed in 2013

Grant Amount Requested: \$7,750.00

Control of Invasive Plants on Hopkinton Town Land

I. Itemized Budget

	IPM Grant Proposal
Task A. Outreach/Education	
Workshops (≥ 3): Mileage, Honorariums for Speakers	\$300
Publications/mailings/handouts	\$50
Costs/Supplies (gloves, tarps, bags, etc)	\$50
SUBTOTALS	\$400

Task B. IPM Implementation	
NH licensed pesticide applicator and vehicle for vegetation removal and herbicide applications	\$4,750
Native Plantings and Seed	\$500
Mechanical management (brush hogging, mowing, etc.)	\$1,600
SUBTOTALS	\$6,850

Task C. Merrimack County Conservation District Project Administration & Oversight	
MCCD to oversee all administrative aspects of project.	\$500
SUBTOTALS	\$500
GRAND TOTAL	\$7,750

II. Project Description

The Town of Hopkinton has recognized two different sites in which invasive plant species are endangering the environmental, aesthetic, and recreational value of the sites. In partnership with the Merrimack County Conservation District, a detailed invasive species control plan tailored to the habitat types will be developed and implemented for the two sites and a community outreach component is proposed to educate and encourage abutters and other local citizens on how to control invasive species on their properties.

III. Project Objectives

The project has two primary objectives: Invasive Species Control and Education. The two sites identified for treatment have a variety of invasive species that can both be used as an educational tool pre and post treatment along with needing treatment to restore the full functions and value of the two sites. Below is a description of how we plan to achieve our two primary objectives.

- A. **Invasive Species Control for Hopkinton Police Department Public Land/Ransmeier Woods and Rollins Field.** The primary goal of this project to provide control of invasive species surrounding the open area adjacent to the Hopkinton Police Station known as Ransmeier Woods as well as in Rollins field. The control of these species will restore valuable habitat and resources to allow for the reestablishment of native species.
- B. **Outreach and Education.** The second goal of this project is inform the public about invasive species, the control of these species and how it relates to greater goals of environmental protection and pest management. Outreach and education will be achieved by having initial "invasive species walks" to familiarize residents of Hopkinton and other interested area citizens on invasive species identification and ways to manage invasive species on their own properties. MCCD will advertise these workshops through their newsletter, email distribution list, and general press releases. The Hopkinton Conservation Commission will also publicize these workshops throughout their town. Workshops will follow post-treatment for citizens to further discuss methods of control, preventing invasive species, and utilizing IPM strategies in their own backyard. This project will produce three or more workshops.

IV. Economic and Environmental Impacts

The two sites in this project are conservation areas used for recreational activities including trails along hayfields to mature woodland. Some of the land is also leased as hayland. Cultural resources such as numerous stone walls are also present.

The invasive plant species on these sites endanger the current and future recreational and agricultural uses. By exploring IPM strategies now while informing the residents of Hopkinton through outreach and education, a long-term solution and longer term sustainable use of the properties can be established.

V. How will your goals be accomplished

Below is a description of his recommendations for each site along with the inclusion of a modest experimental design using undecomposed leaf litter to inhibit Oriental bittersweet in affected areas.

Site 1: Ransmeier Woods

This site's proposed treatment area would include the perimeter of the field and immediately into the woods (25 +/-) feet including the semi-open area behind the Hopkinton Police Station where Japanese Knotweed prevails. The total proposed

treatment area, including any invasive plants growing in the field, is approximately four (4) acres. A combination of low-volume backpack foliar and modified, low-volume foliar pesticide is proposed, especially on the embankment and semi-open area behind the police station. A CST treatment will be necessary in the area of the small drainage stream channel to the field edge on the southern border of the field where Oriental Bittersweet vines are present. It is recommended that the private property abutter just west of the field edge near the parking area be notified to ascertain the presence of a private water supply, so a protective, no-spray buffer can be established, if necessary. A Special Permit issued by the NH Division of Pesticide Control will be applied for any treatments within 25 feet of a wetland or water source as the small drainage stream probably triggers this requirement.

As has been done by Rockingham County Conservation District projects, MCCD proposes an experimental design incorporated into the project to test whether or not post-treatment field supplementation with undecomposed leaf litter will inhibit the growth and new establishment of Oriental bittersweet based on recent greenhouse experiments (Ellsworth, JW, RA Harrington, and JH Fownes. 2004. *Seedling emergence, growth, and allocation of Oriental bittersweet: effects of seed input, seed bank, and forest floor litter*. Forest Ecology and Management, 190: 255-264). These data will help to inform best management practices for the IPM toolbox. Analysis of the results from multiple sites will provide more robust results and interpretation.

Site 2: Rollins Field

This site is of approximately 6.8 +/- acres. The proposed treatment is a combination of foliar applications. The first being a LVF with back pack sprayers and a modified LVF from a small hydraulic sprayer mounted on an ATV for use on the taller and more dense invasive shrubs.

VI & VII Sampling Methods and Data Evaluation

The only research aspect to this project will be the use of undecomposed leaf litter in areas affected by Oriental Bittersweet, but the results will be qualitative over the year versus quantitative. Before and after pictures will be taken for use in recording the results on a local level and for publications, but no formal sampling methods and data evaluation will be undertaken.

VIII. Explain how the results of your project will be shared or publicized.

This project will be shared with the public in many different ways. The Merrimack County Conservation District will publicize the project and the workshops in their newsletter, e-mail distribution list and through press releases. The project will also be shared through town of Hopkinton publications and information distributed at key town locations. A final report will be compiled and the data will be shared at the outreach meetings and to other local environmental organizations.

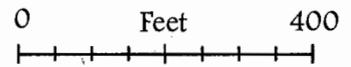
IX. Detail how other groups may adopt some of the information you learn or develop.

Others may learn about this project through the methods mentioned above about publicity. Through increased awareness about invasive species other organizations may choose to research areas in their own communities with potential invasive species issues. They can follow similar techniques of increasing public awareness and developing management plans for local sites. Our findings on the use of undecomposed leaf litter in areas affected by Oriental Bittersweet will be of use if other groups would like to use similar techniques in the future.

Invasive Species Mangement Ransmeier Woods



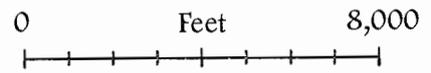
-  Field for Surrounding Management
-  Approximate Management Zone



Hopkinton Invasive Species Management Sites



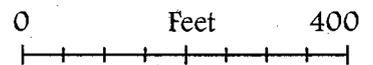
- Town Line
- Site 1: Ransmeier Woods
- Site 2: Hawthorn Town Forest
- Site 3: Rollins Field
- Site 4: Hopkinton Town Fields



Invasive Species Mangement Rollins Field



Approximate Management Area





Vegetation Control Service, Inc.

2342 MAIN STREET
ATHOL, MA 01331
OFF: 978-249-5348
FAX: 978-249-4784
800-323-7706

56 HILL ROAD
FRANKLIN, NH 03235
OFF: 603-934-4665
FAX: 603-934-6260

134 LEVERETT ROAD
SHUTESBURY, MA 01072
413-259-1414

April 16, 2012

Ms. Stacy Luke
Merrimack County Conservation District
10 Ferry Street, Suite 211
Concord, NH. 03301

Dear Ms. Luke:

Please give consideration to this proposal for the control of invasive plants on four separate sites as we reviewed in the field with Hopkinton Conservation Commission members Eric Leadbeater, Rob Knight, MCCD staff member Victoria Stafford and Stacy Luke.

There are numerous methods and techniques that offer various degrees of control of invasive plants. We believe in and practice an Integrated Vegetation Management (IVM) approach, where we may combine several techniques that offer the most efficacious control of unwanted vegetation while minimizing impacts to non-target vegetation and other organisms.

The following is a brief description of the various techniques that we propose to use for the control of invasive plants.

Selective low-volume foliar – as the name implies an herbicide or herbicides are mixed in water and applied to the foliage of unwanted plants using motorized or hand pump operated backpack equipment. This technique is generally utilized where foot access is practical and the target vegetation is generally less than 15 feet tall. It is best suited for target stem densities in the moderate to heavy range and only effective when foliage is on the plant.

Selective, modified low-volume foliar – This technique is best suited when walking conditions are difficult due to thick, entanglements of vines and thorny vegetation such as Multiflora Rose. It is also practical on tall, dense vegetation where good spray penetration is required. The equipment consists of a hydraulic sprayer which is mounted on a 4x4 truck or rubber tracked, all terrain vehicle and the applicator directs the spray from a hand gun attached to a hose which can unreel to a length of 500 feet if necessary. We always include anti-drift spray additives to all of our foliar mixes which reduce drift potential and aid on the deposition of the spray mixture to the foliage of target plants.

Cut Surface Treatments (CST) – target vegetation is cut first, generally by the use of chainsaws, followed by the application of an herbicide to the cut surface of the stump. This technique is best suited for vines such as bittersweet growing high into tree canopies or invasive plants that are too tall to foliar treat. This method is generally used during the fall or early winter after leaf drop.

Project Site Proposal:

Site 1: Hopkinton Police Department Public Land/Ransmeier Woods – proposed treatment area would include the perimeter of the field and immediately into the woods (25 +/-) feet including the semi-open ½ +/- area behind the Hopkinton Police Station where Japanese Knotweed prevails. The total proposed treatment area including any invasive plants growing in the field is approximately 4 acres. We propose a combination of low-volume backpack foliar and modified, low-volume foliar especially on the embankment and semi-open area behind the Police Station. A CST treatment will be necessary in the area of the small drainage stream channel to the field edge on the southern border of the field where Oriental Bittersweet vines are present. We recommend that the private property abutter just west of the field edge near the parking area be notified to ascertain the presence of a private water supply, so a protective, no-spray buffer can be established if necessary. A Special Permit issued by the New Hampshire Division of Pesticide Control, is required for any treatments within 25 feet of a wetland or water source as the small drainage stream probably triggers that requirement. Vegetation Control Service will apply for and secure such permit with the cost included with this quote.

Unit Cost for Site 1 including obtaining the NH Special Permit - \$2,150.00

Site 2: Hawthorne Town Forest – this wooded site contains an open area that was a former dump and Japanese Knotweed is present there. Other invasive species include Oriental Bittersweet, Multiflora Rose and Autumn Olive. We propose a LVF motorized backpack application on the 2.6 +/- acres and a CST treatment to the bittersweet vines too tall to foliar spray. **Unit Cost - \$1,800.00**

Site 3: Rollins Field, 6.8 +/- acres – we propose a combination of foliar applications. The first being a LVF with back pack sprayers and a modified LVF from a small hydraulic sprayer mounted on an ATV for use on the taller and more dense invasive shrubs.

Unit Cost - \$2,600.00

Site 4: Hopkinton Town Fields, 15.8 +/- acres – This site is generally open field with scattered clumps of invasive plants including but not limited to Glossy Buckthorn, Multiflora Rose, Autumn Olive and Marrows Honeysuckle. There are water drainage ditches present and related wetlands therefore a New Hampshire Special Permit is required. We propose a LVF backpack

application including the use of an ATV to resupply the backpack sprayers if necessary. Please note: notwithstanding treatments performed under a NH Special Permit does not include applications to water or invasive plants standing in water. **Unit Cost - \$1,895.00**

Herbicide Selection – We recommend the following herbicides based on our experience applying these products to various species of invasive plants plus the measure of safety they provide relative to their use near humans, within wildlife habitat areas and minimal environmental impacts.

- Rodeo, (glyphosate), EPA Reg. #62719-324
- Escort XP, (metsulfuron methyl), EPA Reg. #352-439
- Polaris AC Complete, (Imazapyr), EPA Reg. #228-570

These herbicides will be tank mixed together with water for all foliage applications. Rodeo only, will be used within the water/wetland setbacks under the NH Special Permit. Rodeo and Polaris AC will be used on the CST applications but at a much stronger concentration than necessary for control by foliar techniques.

The preferred treatment time for most efficacious control is August through mid October for the foliar treatments and late October through January for the CST treatments.

Vegetation Control Service guarantees a 95% control of all species growing at the time of treatment. We recommend, however, follow up treatments be scheduled two or three years after the initial application, to control those new plants that germinate from the seed bank in the soil. We would be happy to re-visit those sites at that time and make recommendations based on the specific species and their densities, application techniques and their associated costs.

If you desire to have us complete the work of one or any combination of the proposed work sites, I would need a confirmation at least 60 days in advance of the projected treatment time to apply for a NH Special Permit.

If you have any questions, please don't hesitate to contact me.

Thank you for the opportunity to submit this proposal.

Sincerely,

Jeffrey M. Taylor, General Manager