



2019 WORK PLAN

780 Commerce Drive, Suite C
Marquette, MI 49855
(906) 226-8871 ext. 116
www.l2lcisma.org

2019 Annual Operating Plan
Lake to Lake Cooperative Invasive Species Management Area

Submitted:

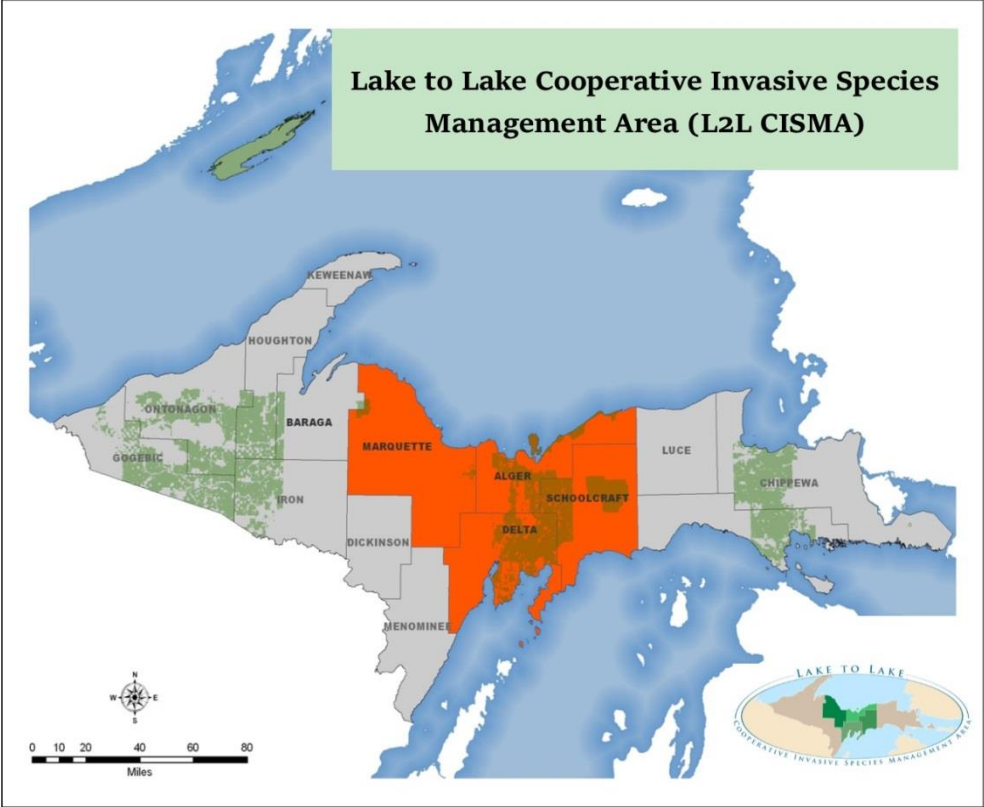
Introduction

The Lake to Lake Cooperative Invasive Species Management Area (L2L CISMA) is a partnership of local, state and federal agencies, tribes, non-profit associations, private companies, landowners and interested citizens who are all working together to provide long-term protection for native ecosystem communities by reducing the threat of non-native invasive species. The L2L CISMA service area includes Alger, Delta, Marquette and Schoolcraft Counties. L2L CISMA utilizes the resources and expertise of various partner organizations to develop cooperative strategies to prevent the spread of invasive species across jurisdictional boundaries, and to work together to implement control measures on established invasive populations. We are coordinating efforts among partners to educate the public about these non-native invasive species, survey and map the invasions, promote best management practices for controlling these invaders, and provide opportunities for on-the-ground invasive removal and treatment.

Membership in L2L CISMA is free and open to groups, organizations, or businesses committed to managing and preventing non-native invasive species in the central Upper Peninsula. Each year we develop an Annual Operating Plan to guide our collective efforts within the outline of our Five-Year Strategic Plan. Current partners of L2L CISMA include:

1. Alger Conservation District
2. Borealis Seed Company
3. Common Coast Research & Conservation
4. Delta Conservation District
5. Forest Service - Hiawatha National Forest
6. GEI Consultants Inc.
7. Marquette Board of Light & Power
8. Marquette County Conservation District
9. MDNR Gwinn Forest Management Unit
10. MDNR - Van Riper/Craig Lake/Laughing Whitefish Falls State Park/Blueberry Ridge/Little Presque Isle Recreation Area
11. Michigan Nature Association
12. MSU Extension
13. National Park Service - Pictured Rocks National Lakeshore
14. Noquemanon Trail Network
15. Schoolcraft Conservation District
16. Seney National Wildlife Refuge - U.S. Fish and Wildlife Service
17. Superior Watershed Partnership
18. The Forestland Group
19. The Nature Conservancy - Michigan Chapter
20. Upper Peninsula Land Conservancy
21. Upper Peninsula Resource Conservation and Development Council
22. Weyerhaeuser
23. Yellow Dog Watershed Preserve

Map of the Lake to Lake CISMA service area



Funding 2019

Amount	Source	Outputs	Grantee	Match	Start Date	End Date
\$93,253.27	DNR MISg 2016 (sub-award)	Plant management programs, oversight, encourage partnerships, etc.	Marquette County Conservation District	\$29,409.00	3/20/2017	1/28/2019
\$100,007.70	DNR MISg 2016	Plant management programs, oversight, encourage partnerships, etc.	Alger Conservation District	\$21,720.80	3/20/2017	1/28/2019
\$6,752.00	DNR MISg 2016 (sub-award)	Management of NNIS with crew time to survey and remove terrestrial NNIS along the H-58 corridor within the park buffer zone.	Pictured Rocks National Lakeshore	\$36,304.69	3/20/2017	1/28/2019
\$30,448.00	Joint Chiefs 2017	64.2 acres of NNIS management in the Lake Superior watershed in Marquette County.	Marquette County Conservation District	\$15,061.60	4/19/2017	3/31/2020
\$34,724.00	DNR MISg 2017 Tier 1	Core CISMA functions including outreach and field crew activities	Alger Conservation District	\$5,928	4/6/2018	3/31/2019
\$24,549.18	DNR MISg 2017 Tier 1 (subaward)	Core CISMA functions including outreach and field crew activities	Marquette County Conservation District	N/A	4/6/2018	3/31/2019
\$39,615.16	2018 USFS GLRI CWMA	Survey 44 lakes throughout the four county service area for aquatic vegetative NNIS	Marquette County Conservation District	\$19,906.78	8/22/2018	9/30/2022
\$60,000	MISg 2018 Tier1	Core functions of the L2L CISMA including coordinator core funding	Marquette County Conservation District	\$9,500	4/1/2019	4/1/2020
\$191,600	MISg 2018 Phragmites	Subaward to three UP CISMAs to conduct non-native phragmites treatments and implement landowner cost-share	UPRC&D Council	\$21,800	3/1/2019	3/31/2021
\$159,200	MISg 2018 HWA	Survey for EDRR of hemlock wooly adelgid along the Lake Michigan shoreline of the UP	Alger Conservation District	\$18,000	4/1/2019	4/1/2021
\$40,000	2019 USFS GLRI CWMA	Map, survey and treat through 3 Wilderness Areas and other NNIS treatments	Marquette County Conservation District	\$8,000	<i>*Not yet awarded, submitted March 27, 2019</i>	

Outreach Calendar (*Subject to change through the year. For the most up-to-date calendar, please see the website calendar of activities at www.l2lcisma.org/events)

Event	Date	Publicized (yes or no, Medium?)	Presentation (yes or no)	Audience	Responsible organization
The Stewardship Network Conference	January 11 th and 12 th 2019	N/A	No	N/A	The Stewardship Network
All Partner Event	March 7 th , 2019	Yes, social media and CISMA contacts list	Yes	CISMA partners and public	Coordinator
Forest Health Workshop	March 22, 2019	Yes, appropriate contact lists for event	Yes	Foresters, loggers, consultants	Coordinator
U.P. Boat and Recreation Show Booth	March 29 th to March 31 st 2019	Yes, multiple advertisers and social media	No	Show attendees	Coordinator
U.P. Home and Garden Show	April 6 th , 2019	Yes, advertised by MSU Extension	Yes	Show attendees	Coordinator
Bay de Noc Master Gardener's Conference	April 27 th , 2019	Yes, multiple outlets	Display/table	Conference attendees	Coordinator
Annual Tree and Native Plant Sale Fundraisers	May 10 th and 11 th 2019	Yes, catalog and other outlets	Display boards	Conservation District Partners/Public	Conservation Districts
Kid's fishing day	June 8 th , 2019	Yes, Hiawatha National Forest	No	Public	Coordinator
Pictured Rocks Days	June 8-9, 2019	Yes, Munising municipality	Display	Attendees	Alger CD
Boat Wash Landing Blitz Events	June 28-30	Yes, CISMA events	No	Public	Multiple CISMA CD partners
Life of Lake Superior Event	July 16 th	Yes, Hiawatha National Forest	No	Public	Coordinator
Volunteer work days – season long event	See Event Calendar on www.l2lcisma.org	Yes, various outlets	No	Volunteers	CISMA partners

Field Calendar

January

M	T	W	T	F	S	S
	1	2	3	4	5	6
7	8	9	10	11 The Stewardship Network Conference	12 The Stewardship Network Conference	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

February

M	T	W	T	F	S	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17

18	19	20	21	22	23	24 National NNIS Week
25 National NNIS Week	26 National NNIS Week	27 National NNIS Week	28 National NNIS Week			

March

M	T	W	T	F	S	S
				1 National NNIS Week	2 National NNIS Week	3 National NNIS Week
4	5	6	7 L2L CISMA All Partner Meeting	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22 Forest Health Workshop	23	24
25	26	27	28	29 U.P. Boat and Recreation Show	30 U.P. Boat and Recreation Show	31 U.P. Boat and Recreation Show

April

M	T	W	T	F	S	S
1	2	3	4	5	6 Home and Garden Show - Escanaba	7
8	9	10	11	12	13 Alger/Marquette tree pruning workshops	14

15 16 17 18 19 20 21

22 23 24 25 26 27 28

Master
Gardener's
Workshop Table

29 30

May

M	T	W	T	F	S	S
		1	2	3	4	5

6	7	8 MiCorps Inland Lake Training	9 NTN NNIS Pull	10 District Partner Tree Sales	11 NTN NNIS Pull District Partner Tree Sales	12
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13 Lake survey start date!	14 Training	15 Training	16 Training	17	18	19
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20 Bay Cliff Health Camp NNIS Pull	21 Cusino Lake	22 Gemini Lake	23 Ross Lake	24	25	26
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27 Memorial Day	28 Clear Lake	29 East Lake Steuben Lake	30 Thunder Lake NTN NNIS Pull	31		
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June

M	T	W	T	F	S	S
					1 NTN NNIS Pull	2

3	4	5	6	7	8	9
Regular Crew/Interns Start Johnson Lake	Peninsula Point NNIS	Peninsula Point NNIS	Lake Michigamme Alger NNIS Pull			
10	11	12	13	14	15	16
Bass Lake Monitoring Plots	Little Lake Monitoring Plots	Peninsula Point NNIS	Peninsula Point NNIS			
17	18	19	20	21	22	23
Pete's Lake IOHT Ishp.	Grassy Lake IOHT MQT	Byer's Lake P. Hemlock Valerian	Triangle Lake Alger GM Pull			
24	25	26	27	28	29	30
Silver Lake IOHT Negaunee	Laughing Whitefish Lake Chocolay Bayou	Echo Lake Echo Lake NNIS	Blemhuber Lake Schoolcraft CD Blitz	Delta CD Blitz	Alger CD Blitz	MQT CD Blitz

July

M	T	W	T	F	S	S
1	2	3	4	5	6	7
AuTrain Lake Gander Outreach	Nawakwa Lake	Mallard Lake	HOLIDAY			
8	9	10	11	12	13	14
Grand Island NNIS	Grand Island NNIS	Grand Island NNIS	Grand Island NNIS			
15	16	17	18	19	20	21
Harris Lake	Bat Lake Life of Lake Superior Event	Indian Lake and NNIS	Greenwood Reservoir Alger NNIS Pull			
22	23	24	25	26	27	28
Horseshoe Lake YDWP NNIS	Squaw/Little Squaw Lake YDWP NNIS	Witch Lake YDWP NNIS	Twin Lake North YDWP NNIS			

29 Gooseneck Lake Seed Harvest	30 Camp 7 and Lyman Lake Seed Harvest	31 Chicago Lake Seed Harvest
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August

M	T	W	T	F	S	S
			1 Dana Lake Seed Harvest NTN NNIS Pull	2	3	4
5 Echo Lake (Gr. Island)	6 Big Island Lake	7 Coattail Lake	8 McComb Lake	9	10	11
12 McNeil Lake	13 Lost Lake Planting/NNIS HNF	14 Skeels Lake	15 Corner Lake	16	17	18
19 Gulliver Lake	20 McDonald Lake HNF Planting/NNIS	21 Island and Dodge Lake HNF Planting/NNIS	22 Indian Lake	23	24	25
26	27 Grand Island Planting NNIS	28 Japanese Knotweed Treatments	29 Japanese Knotweed Treatments	30	31	1

September

M	T	W	T	F	S	S
2 HOLIDAY	3 HNF Seed Orchard/NNIS	4 HNF Seed Orchard/NNIS	5	6	7	8

9	10 Peninsula Point NNIS	11 Peninsula Point NNIS	12	13	14	15
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16 *Potential phragmites treatments*	17	18	19	20	21	22
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23	24	25	26	27	28	29
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30

October

M	T	W	T	F	S	S
	1	2	3	4	5	6

7	8	9	10	11	12	13
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14	15	16	17	18	19	20
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21	22	23	24	25	26	27
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28	29	30	31			
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November

M	T	W	T	F	S	S
				1	2	3

4 5 6 7 8 9 10

11 12 13 14 15 16 17

18 19 20 21 22 23 24

25 26 27 28 29 30 1

December

M	T	W	T	F	S	S
2	3	4	5	6	7	8

9 10 11 12 13 14 15

16 17 18 19 20 21 22

23 24 25 26 27 28 29

30 31

Invasive Plant Removal Projects – Hiawatha National Forest

Dates	Target NNIP with Planned Acre Accomplishment	Location(s)
May 21-23	Garlic Mustard (10+ acres)	Various
May 29	Garlic Mustard (.25 acres)	Grand Island NRA Murray Bay
June 4-5	Black swallowwort, wild parsnip, houndstounge, barberry (5 acres)	Peninsula Point
June 12-13	Black swallowwort, wild parsnip, houndstounge, barberry (5 acres)	Peninsula Point
July 8-11	Thistle, garlic mustard, hawkweed, spotted knapweed, St. Johnswort (76 acres)	Grand Island NRA
July 16 th	Life of Lake Superior Event	Grand Island NRA
July 29 - August 1	Seed Harvesting	Wildlife openings
August 13	Planting/NNIS	Sandtown
August 20-21	Planting/NNIS	M-28 and H-13 Seed Orchards
August 27	Native planting	Grand Island NRA
September 3-4	Planting/NNIS	M-28 and H-13 Seed Orchards
September 10- 11	Planting/NNIS	Peninsula Point

L2L CISMA Field Safety Policy

CISMA Coordinator: Being director of rural and/or remote field activities, one must ensure that the risks associated with the work are managed effectively. To do this one must:

- Determine the possible hazards that may be encountered during the activity, such as: hazardous plants, rough terrain, inclement weather, chemicals, etc.
- Assess the risks associated with the possible hazards and determine if the activity is safe, and ensure any risk is communicated with the field team.
- Incorporate strategies to minimize the risks to safety and health, such as: training, requiring appropriate clothing, footwear, communication devices, etc.
- Ensure that the responsibilities for safety and health are communicated to all participants, such as: holding a meeting to explain safety protocol and equipment and ensuring that all participants sign the appropriate waiver form.
- Provide appropriate information, instruction and training to all participants, such as: train field staff to handle hazards appropriately and notify them of first aid certification classes.
- Ensure the field crew is properly equipped with complete set of safety gear, such as: clothing, special hazard clothing, communication device, first aid kit and water filter.
- Communicate with field crew before and after they travel to a work site.

Crew Leader: The fieldwork leader on site must:

- Have basic training in first aid.
- Ensure that safe working practices are developed and maintained at all times.
- Ensure that participants are warned about hazards as well as how to avoid, eliminate or minimize them, either from the Coordinator or from a partner organization lead.
- Ensure that participants under their supervision use safety equipment provided in the correct manner.

Suggestions for safety equipment:

- Communication: A communication system should be in place. Cell phones will generally work in most cases, but not always. Devices such as Delorme InReach with the Safety Plan functions as an emergency text message alert system that uses satellite to operate and does not require cell service. Always follow the scheduled plan for the day so an approximate location and detail of the daily activities can be relayed if necessary to safety personnel.
- Clothing and Footwear: Field crews should be prepared for a variety of weather conditions and wear pants, long sleeve shirts, and boots. If a crew is spending the night in the field they should come prepared and know in advance what they will need to bring.
- Special Clothing for Hazardous Conditions: If the crew will be working with or near hazardous plants they should be equipped with hazmat suits, long pants and long sleeves and gloves. If they are working in buggy conditions they should have head nets and/or bug shirts.
- Sun: Field crews should be prepared to work in the sun for long hours and bring appropriate clothing and sunscreen.
- Water: Field crews should arrive at the site with full water bottles. If the crew will be working in a remote area they should also have an extra water supply, or have a water filtration system available.
- First Aid: Field crews should arrive on site with one complete first aid kit to be checked by the L2L CISMA coordinator.
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Reporting – Field Data Forms

L2L CISMA Invasive Treatment Form and Key

Project/Site Name:		Waypoint Code/Site ID #:	
Species:			
Observer/Crew Leader:		Date:	
Personnel Involved (see attached sign-in sheet):			
GPS Coordinates (decimal deg.) Latitude:		GPS Coordinates (decimal deg.) Longitude:	
Land Ownership: <input type="checkbox"/> State <input type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other _____			
Contractor Name (if applicable):		Has permission been secured?	
County Name:		Section	Township
Phenology at time of treatment:		Range	
Density (see back for codes):		Actual Area:	
Estimated Area (see back for codes):		Actual Area:	
Control Method(s): manual (M), mechanical (MM), biocontrol (BA), herbicide (H), fire (F), or other (o) please describe:			
Comments:			
Map of treatment area (include landmarks, roads, structures, property lines, etc.)			
Total number of 30 gallon garbage bags filled:		Note: If different size bags were used please specify.	
Total "person-hours" devoted to management at this site:			
Count as grant match? Yes/No	Applicable Grant:	Time spent incl. travel:	

Key

Waypoint Code/Site ID Number	
The waypoint code is a unique ID code to be used in mapping the location of each invasive plant found. The 9 digit code will be developed in the following manner: “MCWWPH001” where MC is the two letter code for the county, WW is the observer’s initials, PH is the invasive species code, and 001 is the three digit sequence number. See components of the Waypoint Code below:	
1. County Code	
CC = Chippewa Co.; MC = Mackinac Co.; LC = Luce Co.; SC=Schoolcraft Co.; AL= Alger Co.; MQ=Marquette Co.; DL=Delta Co.; BC=Baraga Co.; IC=Iron Co.; DK=Dickinson Co.; MN=Menominee Co.; GC=Gogebic Co.; OC=Ontonagon Co.; HC=Houghton Co.; KC=Keweenaw Co.	
2. Observer Initials	
First initial of first name and first initial of last name. Example: Willie Work would be “WW”.	
4. Species Codes	
Enter the two digit code for the invasive plant species found at the location. Each volunteer will be given a code sheet with all of the invasive plant common names, scientific names, and the two digit abbreviation codes. Example: phragmites = PH	
3. Site ID Number	
This is a three digit sequence number. The first entry should be “001”, the second “002”, the third “003”, etc. A sequence number of the ID for each person should never repeat in the county being surveyed.	
Area	
Select one of the following:	
0 = None	3 = 1,000 square feet to 0.5 acre
1 = Individual/few/several	4 = 0.5 acre to 1 acre (football field w/o end zones)
2 = < 1,000 square feet (half tennis court)	5 = > 1 acre
Density	
Select one of the following options:	
1 = Sparse (scattered individual stems or very small stands)	
2 = Patchy (a mix of sparse and dense areas)	
3 = Dense (greater than 40% of the area)	
4 = Monoculture (nearly 100% of area)	
Treatment Status	
Enter “U” for untreated; or “N” for nonconsecutive years treated; or enter the number of years of consecutive treatment; or “D” for don’t know.	
GPS Coordinates	
Set a waypoint for each plant species found at each location. All coordinates must be recorded in decimal degrees. For example: N44.75723 W85.65276.	
Comments	
Use this space to record anything of interest about the find; i.e. note the use of flagging, general quality of natural community, last year treated (if known) or other pertinent information about the location, species infestation or mapping.	

L2L CISMA Invasive Plant Monitoring Form

Observer Name: _

Location-Center of Monitoring Plot (decimal degrees):

Latitude:

Longitude: _

Pre-Treatment Monitoring Year _____ Date: _ _ Control Code: * Initials: _____ Percent Cover of Target Plant: _____ Comments: _____
Post-Treatment Monitoring Year _____ Date: _ _ Control Code: _____ Initials: _____ Percent Cover of Target Plant: _____ Comments: _____
Pre-Treatment Monitoring Year _____ Date: _ _ Control Code: _____ Initials: _____ Percent Cover of Target Plant: _____ Comments: _____
Post-Treatment Monitoring Year _____ Date: _ _ Control Code: _____ Initials: _____ Percent Cover of Target Plant: _____ Comments: _____

CODE	PERCENT EFFICACY	RATING	DESCRIPTION
0	0	No Effect	No effect can be detected on the target species population
3	1-5	Failure	Little to no effect can be detected on the target species population
15	6-25	Poor	Treatment killed less than a quarter of the target species population
35	26-50	Marginal	Less than half of the target species population was controlled
65	51-75	Fair	Over half of the target species population was controlled
85	76-90	Good	Treatment was successful in killing most of the target species population
95	91-99	Excellent	Over 95% of the target species population has been killed with the treatment
100	100	Complete	Not a single individual of the target species population was found after a complete survey of the site. Infestation was eradicated on the site
UN	UNK	Unknown	Treatment efficacy/success can not be determined

* Not applicable unless you have conducted & recorded treatment at this location prior to 2012

Invasive Species Pre-and Post-Treatment Monitoring Protocols
Before treatment is conducted at a site:

1. Establish a monitoring plot for every 5-10 acres of infestation. If infestations are extensive and fairly homogeneous, then one every one 10 acres would be sufficient.
2. Establish the center point of each plot and mark it with a small wooden stake or lath
3. Mark stake with an orange flag or similar marker.
4. Record the lat/long of the centerpoint on the data sheet. The sample plot will be circular with a 6 foot radius (12 foot diameter). Use a 6' tape or other device to measure radius.
5. Estimate the % stem density of target plant in the plot each time that plot is visited. Use the control codes to characterize control efficacy. (The first time a plot is visited, there would not be a treatment control code because no treatment will have been conducted.) There is room for any pertinent comments regarding the infestation, native regrowth, or other observations.
6. Revisit plot at end of season to determine effectiveness of current year's treatment, and again before the next year's treatment
7. Make a copy of the form at the end of the season and then take that form back out into the field the next time, keeping a copy safe in the office. Each plot should be visited a minimum of 4 times. Extended retreatment (more than two seasons) will necessitate additional forms to monitor progress.

HNF Invasive Plant Treatment Form

Treatment - General Information
<i>Attach Invasive Plants survey form and map of treatment area if applicable</i>
Project / Site Name _____ (e.g. East Gravel Pit) Land Ownership: _____ District: _____ County name: _____ Species Code: _____ Species Common Name: _____ _____ (multiple target species can be recorded) Density of infestation at time of treatment (optional): _____ % cover: _____ Treatment type code: _____ Manual (M), Mechanical (MM), Biocontrol (BA), Fire (F), Pesticide (P) Treatment Start Date: _____ Stop Date if different from Start Date: _____ Acres Treated: _____ (if linear = miles of 2-sided road x 3.63) Infested Area (if different from above): _____ (acres) Crew Leader's name: _____ Cooperating agencies (volunteer groups): _____ _____ Narrative of treatment (equipment used if applicable; describe location; type of site: pit, roadside, riparian, etc.) _____ _____ _____ List TES plants if present _____
Database Information (contractors leave blank)
NRIS Site ID (or use "non-Terra inventory" if not mapped) _____ FACTS Activity Unit ID _____ (e.g NNIS200703) Use NNIS, year, district code FACTS Treatment Subunit ID _____ (3 digits, starting at 001 for the year) FACTS Subunit Name _____ (may be same as Project Name) Fund code _____ Cost/Unit of measure _____
Chemical Treatment Information
Certified Pesticide Applicator's name: _____ Applicator name (if different than above): _____ Contractor company name: _____ Temperature _____ Wind speed _____ (mph) Wind direction _____ Cloud Cover _____ Distance to water (if applicable) _____ Start time _____ Stop time _____ Chemical Product name _____ Dilutant used (circle): WATER OIL OTHER Active Ingredient name _____ Colorant? YES NO Application Rate: <i>Percent solution is recommended from the label and is usually figured by ounce per gallon</i> Percent % solution _____ OR Product Rate (oz/acre; lbs/acre; or pt/acre): _____ Adjuvant / Surfactant used _____ % solution Total Volume of mix applied _____ (gallons, liters, or pounds)
Biological Treatment
<i>Need to fill out separate Biocontrol release form with specifics on agents released and location.</i>

HNF Invasive Plant Treatment Monitoring

Note: 50% of all treatments must be monitored in the current year

Use this form for entering treatment effectiveness monitoring in FACTS database

Date of monitoring: _____

Project / Site Name: _____

Inspector Name: _____

Species Monitored: _____

Effectiveness of treatment on target population (see codes below): _____

Comments: _____

% Cover of remaining target species (optional) _____ Count of individuals (optional) _____

Density-how big is the population now? (optional) _____ (sq.ft / sq.meter / acre)

Distribution (optional) ____ Continuous / Isolated / Linear / None / Patchy / Scattered / Scattered-Patchy

Other Notes:

Effectiveness Codes

0	No Effect	No effect can be detected
1-5	Failure	Little or no effect can be detected on target species population
6-25	Poor	Treatment killed less than a quarter of the target species population
26-50	Marginal	Less than one half of the population was controlled
51-75	Fair	Over one half of the population was controlled
76-90	Good	Treatment was successful in killing most of the target species population
91-99	Excellent	Over 95% of the population has been killed
100	Complete	Not a single individual of the target species population was found
UNK	Unknown	Success cannot be determined

Official L2L CISMA Partners			
Group/Organization	Contact Person	Phone	Email
Alger Conservation District	Teri Grout	(906)387-2222	teri.grout@mi.nacdnet.net
Borealis Seed Company	Sue Rabitaille	(906)226-8507	srborealisseed@gmail.com
Delta Conservation District	Lori Lynn Mathews	(906)553-7700	lorimathews@deltacd.org
Forest Service – Hiawatha National Forest - USDA	Donna Peppin	(906) 387-2512 x 1015	donna.peppin@fs.fed.us
GEI Consultants, Inc	Sam Prentice	(906) 629-6069	sprentice@geiconsultants.com
Marquette Board of Light and Power	Tom Skewis	(906) 225-8670	tskewis@mblp.org
Marquette County Conservation District	Jaimi Cawley	(906)226-8871 ext. 129	jaimi.mqtcondist@gmail.com
MDNR Gwinn Forest Management Unit	Thomas Seablom	(906)346-9201 x252-0023	seablomt@michigan.gov
MI DNR – Van Riper/Craig Lake State Parks	Deb Gill	(906) 339-4461	DGill2@michigan.gov
Michigan Nature Association	Andrew Bacon	(517) 483-2953	abacon@michigannature.org
MSU Extension	Rob Wiener	(906)387-2530	wienerr2@msu.edu
National Park Service – Pictured Rocks National Lakeshore - USDI	Bruce Leutscher	(906)387-2680	bruce_leutscher@nps.gov
Noquemanon Trail Network	Lori Hauswirth	(906) 235-6861	lori@noquetrails.org
Schoolcraft Conservation District	Bruce Birr	(906) 341-8215	schoolcraftcd@macd.org
Seney National Wildlife Refuge - U.S. Fish and Wildlife Service	Sara Siekierski	(906) 586-9851 x11	sara_siekierski@fws.gov
Superior Watershed Partnership	Geri Grant	(906) 228-6095	geri@superiorwatersheds.org
The Forestland Group	David Fehringer	(906) 487-7491	dave@forestlandgroup.com

Official L2L CISMA Partners

Group/Organization	Contact Person	Phone	Email
The Nature Conservancy, Michigan Chapter	Chris Cantway	(906)225-0399 ext. 4015	ccantway@tnc.org
Upper Peninsula Land Conservancy	Andrea Denham	(906) 225-8067	andrea@uplandconservancy.org
Upper Peninsula Resource Conservation and Development Council	Darcy Rutkowski	(906)225-0215	darcy.rutkowski@uprcd.org
USDA - Natural Resources Conservation Service	Misa Cady	(906) 226-8871 ext. 127	misa.cady@mi.usda.gov
Yellow Dog Watershed Preserve	Rochelle Dale	(906)345-9223	rochelle@yellowdogwatershed.org

Other U.P. CISMA Contact Information

CISMA	Service Area	Coordinator	Phone	Email
L2L CISMA	Alger, Delta, Marquette, and Schoolcraft Counties	Elise Desjarlais, Coordinator	(906) 226-8871 ext. 116	l2lcisma@gmail.com
Three Shores CISMA	Chippewa, Luce Mackinac Counties	Nick Cassel, Coordinator	(906) 635-1278	nick.cassel@macd.org
KISMA	Houghton, Keweenaw, Baraga Counties	Sigrid Resh, Coordinator	(906) 482-0214	scresh@mtu.edu
WePIC	Gogebic, Ontonagon, and Iron Counties	Mike Zukowksi, Coordinator	(906) 875-3765	ironconservationdistrict@gmail.com
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L2L CISMA Committees:

Steering:

- Darcy Rutkowski
- Teri Grout
- Chris Cantway
- Jaimi Cawley
- Tom Seablom
- Sam Prentice

L2L CISMA Species of Concern

Common Name	Latin Name	Priority Status
autumn olive	<i>Elaeagnus umbellata</i>	Medium
bull thistle	<i>Cirsium vulgare</i>	Medium
butterbur	<i>Petasites hybridus</i>	High (Marquette Co.)
Canada thistle	<i>Cirsium arvense</i>	Medium
common St. Johnswort	<i>Hypericum perforatum</i>	Low*
Eurasian water milfoil	<i>Myriophyllum spicatum</i>	High
flowering rush	<i>Butomus umbellatus</i>	High
garden valerian	<i>Valeriana officinalis</i>	High
garlic mustard	<i>Alliaria petiolata</i>	High
Japanese barberry	<i>Berberis thunbergii</i>	Medium
leafy spurge	<i>Euphorbia esula</i>	Medium
marsh thistle	<i>Cirsium palustre</i>	Medium
non-native buckthorns	<i>Rhamnus spp.</i>	Medium
non-native common reed	<i>Phragmites australis</i>	High
non-native honeysuckles	<i>Lonicera ssp.</i>	Medium
non-native knapweeds	<i>Centaurea spp.</i>	Low*
non-native knotweeds	<i>Polygonum spp.</i>	High
purple loosestrife	<i>Lythrum salicaria</i>	High
reed canary grass	<i>Phalaris arundinacea</i>	Medium
sweet clover	<i>Melilotus spp.</i>	Low*
wild parsnip	<i>Pastinaca sativa</i>	High

Priority Species for Hiawatha National Forest

Non-Native Invasive Plant (NNIP) List and Forest Watch List species (labeled – ECC)

Common Name	Latin Name	Code	Legal status in Michigan
garlic mustard	<i>Alliaria petiolata</i>	ALPE4 ECC	
Japanese barberry	<i>Berberis thunbergii</i>	BETH ECC	
non-native knapweeds	<i>Centaurea</i> spp.	ECC†a	Spotted knapweed is a prohibited noxious weed.
Canada thistle	<i>Cirsium arvense</i>	CIAR4 ECC	Prohibited noxious weed.
marsh thistle	<i>Cirsium palustre</i>	CIPA6 ECC	
bull thistle	<i>Cirsium vulgare</i>	CIVU ECC	Prohibited noxious weed.
hound's tongue	<i>Cynoglossum officinale</i>	CYOF ECC	
leafy spurge	<i>Euphorbia esula</i>	EUES ECC	
common St. Johnswort	<i>Hypericum perforatum</i>	HYPE ECC	
non-native bush honeysuckles	<i>Lonicera</i> spp.	ECC†b	
purple loosestrife	<i>Lythrum salicaria</i> (and cultivars)	LYSA2 ECC	Restricted Plant Species.
sweet clover	<i>Melilotus</i> spp.	ECC†c	
Eurasian water milfoil	<i>Myriophyllum spicatum</i>	MYSP2	Restricted Plant Species.
wild parsnip	<i>Pastinaca sativa</i>	PASA2 ECC	
reed canary grass	<i>Phalaris arundinacea</i>	PHAR3 ECC	
common reed (non-native genotype)	<i>Phragmites australis</i>	PHAU7	Restricted Plant Species.
non-native knotweeds	<i>Polygonum</i> spp.	POCU6 ECC	Japanese knotweed is a Prohibited Plant Species
non-native buckthorns	<i>Rhamnus</i> spp.	ECC†d	
butterbur	<i>Petasites hybridus</i>	PEHY	
European frogbit	<i>Hydrocharis morsus-ranae</i>	HYMO6	Prohibited Plant Species

†Species that are grouped are closely similar in appearance, ecological effects, and treatment methods.

They also may hybridize. Generally only one species in the group is commonly encountered and the others are occasional or new invaders.

- a) May include *Centaurea biebersteinii*; spotted knapweed, *C. diffusa*; diffuse knapweed, *C. jacea*; brown knapweed, *C. ×pratensis*; hybrid knapweed, *C. nigra*; black knapweed, and possibly other new invader species.
- b) May include *Lonicera tatarica*; Tartarian honey suckle, *L. morrowii*; Morrow honeysuckle, and *L. ×bella*; hybrid honeysuckle.
- c) Includes *Melilotus alba*, white sweet clover, and *M. officinalis*, yellow sweet clover.
- d) Includes *Rhamnus cathartica*; common buckthorn, and *R. frangula* (synonym *Frangula alnus*); glossy buckthorn.

Priority Species for Seney National Wildlife Refuge

List of Exotic Species

Table 1: Known non-native plant and animal species of concern, management priority, and current status at Seney National Wildlife Refuge. For a list of other species found in the eastern Upper Peninsula, the user should contact colleagues in the Central and Eastern Upper Peninsula Cooperative Weed Management Areas.

Taxon/Species	Priority	Status
PLANTS		
Glossy buckthorn	High	Widespread in Unit 1; scattered in Unit 2-3; management priority since 2003 with numerous successes/lessons learned; research has shown efficacy of treatments using 2.5% a.i. <i>Rodeo</i>
Reed canary grass	High	One main patch in Unit 1; no past management activities known
Purple loosestrife	High	Absent?; has shown up periodically in Unit 1 and has been extirpated using 2.5% a.i. <i>Rodeo</i> , status elsewhere not known, but populations are found off Manistique River Rd. to the south and on South Manistique Lake. Also a Kirtland's Warbler Wildlife Management Area parcel in Clare Co. has been managed for this species: T20N-R5W S. 5 SE1/4
Leafy spurge	High	Sporadic populations in Units 1 and 2; sporadic management in the past using 2.5% a.i. <i>Rodeo</i>
Garlic mustard	High	Absent?
Non-native phragmites	High	Samples taken from Units 1-3 only show some small non-native patches in Unit 1; sporadic management in the past using 2.5% a.i. <i>Rodeo</i> has extirpated this phenotype?
Multiflora rose	Medium	Sporadic populations in Units 1-3; sporadic management using 2.5% a.i. <i>Rodeo</i> in the past with some success; plants do not seem to be thriving
Spotted knapweed	Medium	Widespread throughout Unit 1-3 wherever roads exist and at Diversion Farm; does not thrive anywhere where it needs to compete for sunlight (e.g., in dense vegetation, in forests); primary management is to allow surrounding vegetation to grow and mowing (2.5% a.i. <i>Rodeo</i> used in dunes at Whitefish Point Unit where this species is a priority)
Tartarian honeysuckle	Medium	Sporadic populations in Units 1-3; at the Headquarters, Visitor Center, and along some edges of farm fields; sporadic management in the past with some success using 2.5% a.i. <i>Rodeo</i> ; plants do not seem to be thriving
Forget-me-not	Medium	Chicago Farm field and Conlon Field roads only?; treatments using 2.5% a.i. <i>Rodeo</i> started in 2011
Silvery cinquefoil	Low	Present, unknown distribution and abundance
Timothy	Low	Present, unknown distribution and abundance
Live-forever	Low	Present, unknown distribution and abundance
Japanese barberry	Low	Present, unknown distribution and abundance
St. John's wort	Low	Present, unknown distribution and abundance
Canada thistle	Low	Present, unknown distribution and abundance
Musk mallow	Low	Present, unknown distribution and abundance
Yellow sweet clover	Low	Present, unknown distribution and abundance
Smooth brome	Low	Present, unknown distribution and abundance
Butter-and-eggs	Low	Present, unknown distribution and abundance
Orchard grass	Low	Present, unknown distribution and abundance
Kentucky blue-grass	Low	Present, unknown distribution and abundance

Catnip	Low	Present, unknown distribution and abundance
Shepherd's purse	Low	Present, unknown distribution and abundance
Ryegrass	Low	Present, unknown distribution and abundance
Queen Anne's lace	Low	Present, unknown distribution and abundance
Ox-eye daisy	Low	Present, unknown distribution and abundance
Tall buttercup	Low	Present, unknown distribution and abundance
Bladder campion	Low	Present, unknown distribution and abundance
Bird's foot trefoil	Low	Present, unknown distribution and abundance
Orange hawkweed	Low	Present, unknown distribution and abundance
Heal-all	Low	Present, unknown distribution and abundance
Yellow goat's-beard	Low	Present, unknown distribution and abundance
Field Sow-thistle	Low	Present, unknown distribution and abundance
Plantain	Low	Present, unknown distribution and abundance

ANIMALS

Beech scale	High	Beech scale (a non-native insect) is part of the Beech Bark Disease Complex, with fungi causing mortality; scale and the complex is found in all northern hardwood stands in Units 1-4; no management known to reduce extent of the scale; forest enhancement efforts used to mitigate the effect
European earthworms	Medium	No management actions, but reducing acreage in farm fields may help suppress populations and reducing the movement of soils may slow further spread
Rusty crayfish	Low	Found in the Driggs River and seems well established in Pine Creek; no known effective management strategies exist
Sea lamprey	Priority	Found in most streams, managed by Marquette Office
Emerald ash borer	Low	Unknown, minimal ash found within the Refuge with some found at Chicago Farm area.