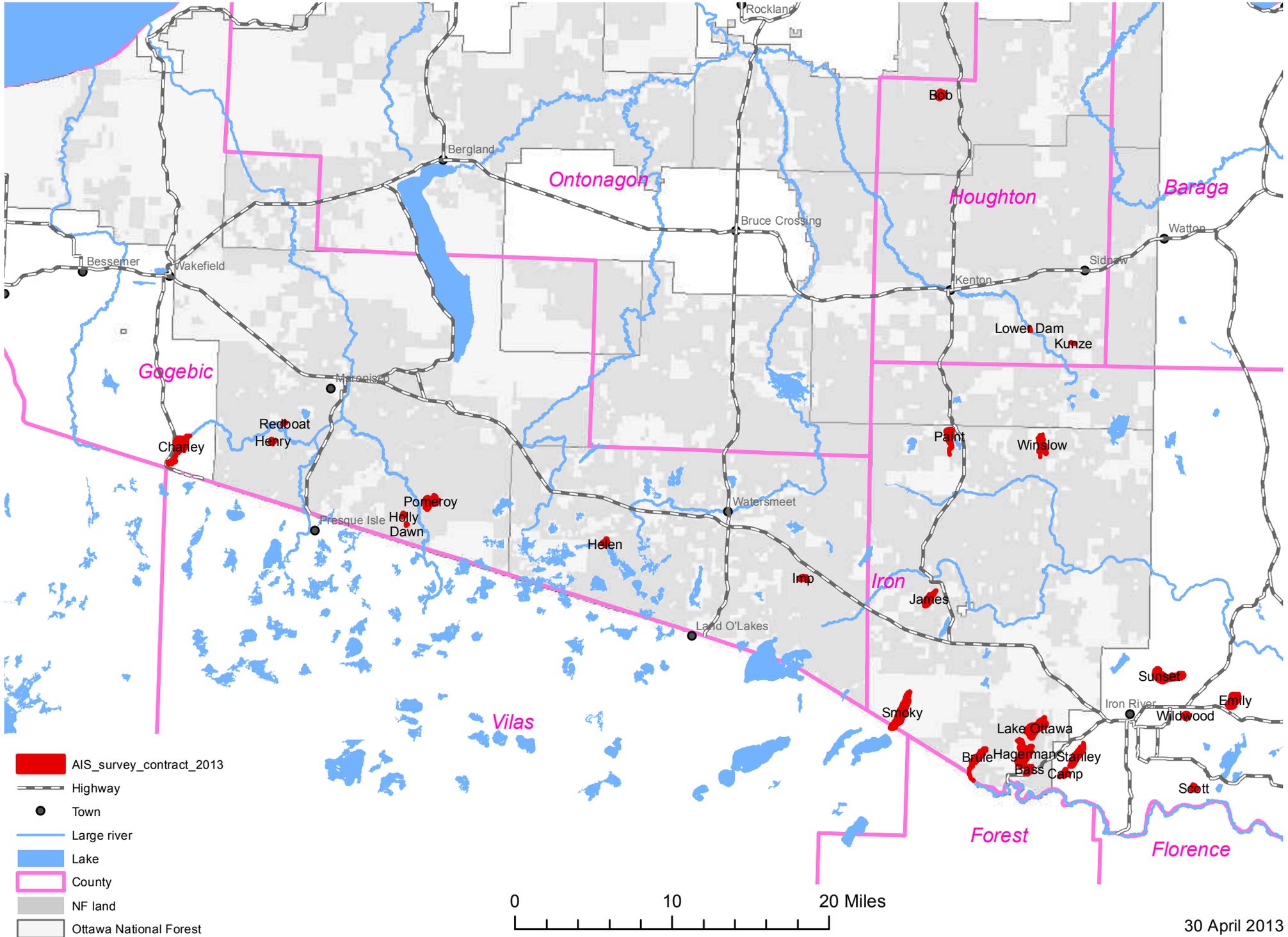


Lake	Area (Acres)	Perimeter (Miles)	County	Date surveyed	Observations
Bass Lake	100.7	2.04	Iron	7/25/2013	Low usage. Medium potential.
Bob Lake	129.9	2.24	Houghton	8/13/2013	No AIS. Medium usage. Medium potential.
Brule Lake	240.8	6.4	Iron	8/14/2013	No AIS. High usage. High potential.
Camp Lake	98	2.34	Iron	7/24/2013	No AIS. High usage. High potential.
Chaney Lake	496.2	7.59	Gogebic	8/12/2013	No AIS. Low usage. Medium potential.
Dawn Lake	16.3	0.61	Gogebic	7/22/2013	No AIS. Low usage. Low potential.
Hagerman Lake	563.8	7.1	Iron	8/14/2013	No AIS. High usage. High potential.
Helen Lake	67.7	2.44	Gogebic	7/22/2013	No AIS. Low usage. Medium potential.
Henry Lake	46.8	1.59	Gogebic	8/12/2013	No AIS. Low usage. Low potential.
Holly Lake	37.9	1.2	Gogebic	7/22/2013	No AIS. Low usage. Low potential.
Imp Lake	90.4	1.72	Gogebic	8/13/2013	No AIS. Medium usage. Medium potential.
James Lake	205.7	2.89	Iron	8/13/2013	No AIS. Medium usage. Medium potential.
Kunze Lake	14	0.83	Houghton	7/22/2013	No AIS. Low usage. Low potential.
Lake Emily	325.9	3.23	Iron	7/24/2013	Banded mysterysnail. High usage. High potential.
Lake Ottawa	529.7	4.42	Iron	8/13/2013	No AIS. Medium usage. Medium potential.
Lower Dam Lake	14.9	0.73	Houghton	7/22/2013	No AIS. Low usage. Low potential.
Paint Lake	238.21	4.79	Iron	8/15/2013	Scattered EWM. Also banded mysterysnail.
Pomeroy Lake	316.2	4.09	Gogebic	8/13/2013	EWM established, scattered patches.
Redboat Lake	26.5	0.84	Gogebic	8/12/2013	No AIS. Low usage. Low potential for AIS.
Scott Lake	78.4	1.51	Iron	7/23/2013	No AIS. Low usage. Low potential for AIS.
Smoky Lake	592.6	6.54	Iron	8/15/2013	Scattered, isolated EW milfoil. High usage, very high development. Check annually.
Stanley Lake	317.9	4.37	Iron	8/14/2013	No AIS. High usage. High potential.
Sunset Lake	531	5.45	Iron	7/23/2013	No AIS. High usage. High potential.
Wildwood Lake	94.6	1.45	Iron	7/23/2013	No AIS. Medium usage. Medium potential.
Winslow Lake	258.4	5.41	Iron	8/15/2013	No AIS. Medium usage. Medium potential.
<i>Total</i>	<i>5432.51</i>	<i>81.82</i>			

AIS Survey Contract 2013



AIS Lake Survey Record

Surveyor(s) Tiffany Kleczewski, Flambeau Eng Date 7.25.13 Time on survey 5:00-6:20

Lake BASS Township 42 N Range 36 W Section 14

Weather partly sunny, light breeze

Boat launch description/condition gravel, shallow

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris **Unknown** Other _____

Present lake level relative to average (*circle one*) Lower Higher **Average** Don't know

Survey area description (also sketch on topo map) Near Iron River, easy access from highway, forested with bog; 30% USFS

Water color dark brown Turbidity high - algae and stain decreased visibility

AIS observed

circle **NONE** *or use lines below*

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake **low**, medium, high, type) no boats on water or at landing - fishing, paddling

Shoreline development moderate development on shore

Connection to other waterbodies Bass Creek

Potential for AIS establishment (low, **medium**, high, why, likely invaders) AIS in area lakes, easy access from highway
low use, high stain. EWM, CLP, rusty, zebra, mystery snail in area waters.

Do you think an annual AIS check is needed or could the interval be less frequent? Less frequent

Explain low use and high stain

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 7.24.13 Time on survey 5:00-6:20

Lake BASS Township 42 N Range 36 W Section 14 or County IRON

General description of lake (setting, nutrient level, obvious concerns):

Algae bloom with sparse vegetation, moderate development, shallow landing, very stained water

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (2 %) Emergents (2 %) Submergents (2 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|---|---|--|
| <input type="radio"/> yellow water lily (spatterdock) | <input type="checkbox"/> 3-way sedge | <input type="checkbox"/> chara or nitella |
| <input type="radio"/> white water lily | <input type="checkbox"/> sedge (other than 3-way) | <input type="checkbox"/> watermilfoil : Eurasian, northern |
| <input type="checkbox"/> water shield | <input type="checkbox"/> rush | <input type="checkbox"/> variable-leaf, other |
| <input type="radio"/> bur-reed | <input type="checkbox"/> wild rice | <input type="checkbox"/> coontail |
| <input type="radio"/> pondweed: ribbonleaf, <input type="checkbox"/> largeleaf, | <input type="checkbox"/> grass (other than wild rice) | <input type="checkbox"/> water buttercup |
| <input type="checkbox"/> <input type="checkbox"/> floatingleaf, variableleaf, other | <input type="checkbox"/> arrowhead | <input checked="" type="radio"/> bladderwort |
| <input type="checkbox"/> duckweed | <input type="checkbox"/> spikerush | <input type="checkbox"/> elodea (waterweed) |
| <input type="checkbox"/> water knotweed | <input type="checkbox"/> water horsetail | <input type="checkbox"/> pondweed: CLP, robbins, small, |
| <input type="checkbox"/> water starwort | <input type="checkbox"/> iris | <input type="checkbox"/> claspingleaf, flatstem, other |
| _____ | <input type="radio"/> cattail | <input type="checkbox"/> naiad |
| _____ | <input type="checkbox"/> wild calla | <input type="checkbox"/> wild celery |
| _____ | <input type="checkbox"/> pickerel weed | <input type="checkbox"/> pipewort |
| _____ | _____ | <input type="checkbox"/> quillwort (Isoetes) |
| _____ | _____ | <input type="checkbox"/> shoregrass (Littorella) |
| _____ | _____ | <input type="checkbox"/> water lobelia |
| _____ | _____ | <input type="checkbox"/> water bulrush |
| _____ | _____ | <input type="checkbox"/> water marigold |
| _____ | _____ | <input type="checkbox"/> golden hedgehyssop |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

Specimens collected? Yes No (give to Botany staff)

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae

Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (circle one) Lower Higher Average Don't know

Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____

Threats/concerns: _____

AIS Lake Survey Record

Surveyor(s) Tiffiney Kleczewski, Flambeau Eng Date 8.13.13 Time on survey 1:00-2:15

Lake BOB Township 49 N Range 37 W Section 10

Weather partly cloudy, light breeze

Boat launch description/condition gravel, good

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (*circle one*) Lower Higher Average Don't know

Survey area description (also sketch on topo map) Upland forest with bog on north end, campground; 100% USFS forest

Water color dark brown Turbidity low, very stained secchi 3'

AIS observed

circle NONE *or use lines below*

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake (low, medium, high, type) Fishing, paddling, one canoe on lake, boats at campsites

Shoreline development none except campground

Connection to other waterbodies Leveque Creek

Potential for AIS establishment (low, medium, high, why, likely invaders) No AIS mapped in area, medium use from campground, very stained with sparse vegetation.

Do you think an annual AIS check is needed or could the interval be less frequent? less frequent

Explain very stained, sparse vegetation, medium use from campground, rural area.

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 8.13.13 Time on survey 1:00-2:15

Lake BOB Township 49 N Range 37 W Section 10 or County Houghton

General description of lake (setting, nutrient level, obvious concerns):

Rural area, very stained, low nutrient, sparse vegetation. Campground with boats.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (1 %) Emergents (1 %) Submergents (2 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|---|---|---|
| <input checked="" type="checkbox"/> yellow water lily (spatterdock) | <input type="checkbox"/> 3-way sedge | <input type="checkbox"/> chara or nitella |
| <input type="checkbox"/> white water lily | <input type="checkbox"/> sedge (other than 3-way) | <input type="checkbox"/> watermilfoil : Eurasian, northern variable-leaf, other |
| <input checked="" type="checkbox"/> water shield | <input type="checkbox"/> rush | <input type="checkbox"/> coontail |
| <input type="checkbox"/> bur-reed | <input type="checkbox"/> wild rice | <input type="checkbox"/> water buttercup |
| <input checked="" type="checkbox"/> pondweed: <u>ribbonleaf, largeleaf,</u> | <input type="checkbox"/> grass (other than wild rice) | <input checked="" type="checkbox"/> bladderwort |
| <input type="checkbox"/> floatingleaf, variableleaf, other | <input type="checkbox"/> arrowhead | <input type="checkbox"/> elodea (waterweed) |
| <input type="checkbox"/> duckweed | <input type="checkbox"/> spikerush | <input type="checkbox"/> pondweed: CLP, robbins, small, claspingleaf, flatstem, other |
| <input type="checkbox"/> water knotweed | <input type="checkbox"/> water horsetail | <input type="checkbox"/> naiad |
| <input type="checkbox"/> water starwort | <input type="checkbox"/> iris | <input type="checkbox"/> wild celery |
| <input type="checkbox"/> _____ | <input type="checkbox"/> cattail | <input type="checkbox"/> pipewort |
| <input type="checkbox"/> _____ | <input type="checkbox"/> wild calla | <input type="checkbox"/> quillwort (Isoetes) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> pickerel weed | <input type="checkbox"/> shoregrass (Littorella) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water lobelia |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water bulrush |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water marigold |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> golden hedgehyssop |

Specimens collected? Yes No give to Botany staff

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae secchi 3'

Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (circle one) Lower Higher Average Don't know

Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____

Threats/concerns: Rural area, no AIS mapped in area, very stained, sparse veg

AIS Lake Survey Record

Surveyor(s) Tiffiney Kleczewski, Flambeau Eng Date 8.14.13 Time on survey 2:40-6:00

Lake BRULE Township 42 N Range 36 W Section 18

Weather partly cloudy, light breeze

Boat launch description/condition good, paved road, block ramp

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (*circle one*) Lower Higher Average Don't know

Survey area description (also sketch on topo map) near Iron River, developed shoreline, headwaters Brule River , canoe route. 20% USFS forest

Water color brown and green Turbidity very high - stained and lots of algae

AIS observed

circle NONE *or use lines below*

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake (low, medium, high, type) recreation, fishing, many boats at riparian piers

Shoreline development high, most of lake developed

Connection to other waterbodies headwaters Brule River

Potential for AIS establishment (low, medium, high, why, likely invaders) All AIS in area lakes, many boats on lake, recreation lake. Rusty documented in previous surveys, not observed in 2013. EWM, CLP, zebra and mystery in area waters.

Do you think an annual AIS check is needed or could the interval be less frequent? Yes

Explain high use and AIS in area lakes

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 8.14.13 Time on survey 2:40-6:00

Lake BRULE Township 42 N Range 36 W Section 18 or County IRON

General description of lake (setting, nutrient level, obvious concerns):

high nutrients, severe algae bloom, highly developed

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (5 %) Emergents (5 %) Submergents (20 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|--|--|---|
| <input type="radio"/> yellow water lily (spatterdock) | <input type="checkbox"/> 3-way sedge | <input type="radio"/> chara or <u>nitella</u> |
| <input type="radio"/> white water lily | <input type="checkbox"/> sedge (other than 3-way) | <input checked="" type="radio"/> watermilfoil : Eurasian, <u>northern</u> |
| <input type="checkbox"/> water shield | <input checked="" type="radio"/> rush | <input type="checkbox"/> variable-leaf, other |
| <input type="checkbox"/> bur-reed | <input checked="" type="radio"/> wild rice <u>OUTLET</u> | <input checked="" type="radio"/> coontail |
| <input checked="" type="radio"/> pondweed: ribbonleaf <u>largeleaf</u> | <input type="checkbox"/> grass (other than wild rice) | <input type="checkbox"/> water buttercup |
| <input type="checkbox"/> floatingleaf, variableleaf, other | <input type="checkbox"/> arrowhead | <input type="checkbox"/> bladderwort |
| <input type="checkbox"/> duckweed | <input type="checkbox"/> spikerush | <input type="checkbox"/> elodea (waterweed) |
| <input checked="" type="radio"/> water knotweed | <input type="checkbox"/> water horsetail | <input type="checkbox"/> pondweed: CLP, robbins, small, |
| <input type="checkbox"/> water starwort | <input type="checkbox"/> iris | <input type="checkbox"/> claspingleaf, flatstem, other |
| <input type="checkbox"/> _____ | <input type="radio"/> cattail | <input type="checkbox"/> naiad |
| <input type="checkbox"/> _____ | <input type="checkbox"/> wild calla | <input checked="" type="radio"/> wild celery |
| <input type="checkbox"/> _____ | <input type="checkbox"/> pickerel weed | <input type="checkbox"/> pipewort |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> quillwort (Isoetes) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> shoregrass (Littorella) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water lobelia |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water bulrush |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water marigold |

Specimens collected? Yes No (give to Botany staff)

WHITESTEM PONDWEED

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae SECCHI 1.5'

Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris unknown Other _____

Present lake level relative to average (circle one) Lower Higher Average Don't know

Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____

Threats/concerns: _____

AIS Lake Survey Record

Surveyor(s) Tiffany Kleczewski, Flambeau Eng Date 7.24.13 Time on survey 2:55-4:15

Lake CAMP Township 42 N Range 35 W Section 18

Weather partly cloudy, light breeze

Boat launch description/condition good road, concrete ramp with pier, no boats at landing

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (*circle one*) Lower Higher Average Don't know

Survey area description (also sketch on topo map) near Iron River, highly developed shoreline

Water color light green Turbidity high - algae

AIS observed

circle **NONE** *or use lines below*

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake (low, medium, high type) recreation, fishing, many boats at private piers

Shoreline development high, most of shoreline developed

Connection to other waterbodies Camp Lake Creek

Potential for AIS establishment (low, medium, high, why, likely invaders) All AIS in area lakes, high use, good landing EWM, CLP, rusty, zebra, mystery in area waters.

Do you think an annual AIS check is needed or could the interval be less frequent? Yes

Explain high use from riparians and likely other boaters, good landing, AIS in area lakes.

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 7.25.13 Time on survey 2:55-3:15

Lake CAMP Township 42 N Range 35 W Section 18 or County IRON

General description of lake (setting, nutrient level, obvious concerns):

Highly developed shoreline with many watercraft at piers. Good landing. High nutrients, algae bloom with green water. AIS in area lakes.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (15 %) Emergents (2 %) Submergents (20 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|--|---|---|
| <input type="checkbox"/> yellow water lily (spatterdock) | <input type="checkbox"/> 3-way sedge | <input type="checkbox"/> chara or nitella |
| <input checked="" type="checkbox"/> white water lily | <input type="checkbox"/> sedge (other than 3-way) | <input type="checkbox"/> watermilfoil : Eurasian, northern variable-leaf, other |
| <input type="checkbox"/> water shield | <input type="checkbox"/> rush | <input type="checkbox"/> coontail |
| <input type="checkbox"/> bur-reed | <input type="checkbox"/> wild rice | <input type="checkbox"/> water buttercup |
| <input checked="" type="checkbox"/> pondweed: ribbonleaf, <input checked="" type="checkbox"/> largeleaf, | <input type="checkbox"/> grass (other than wild rice) | <input type="checkbox"/> bladderwort |
| <input checked="" type="checkbox"/> floatingleaf, variableleaf, other | <input type="checkbox"/> arrowhead | <input type="checkbox"/> elodea (waterweed) |
| <input type="checkbox"/> duckweed | <input type="checkbox"/> spikerush | <input checked="" type="checkbox"/> pondweed: CLP, robbins, small, claspingleaf <input checked="" type="checkbox"/> flatstem, other |
| <input type="checkbox"/> water knotweed | <input type="checkbox"/> water horsetail | <input checked="" type="checkbox"/> naiad |
| <input type="checkbox"/> water starwort | <input type="checkbox"/> iris | <input type="checkbox"/> wild celery |
| <input type="checkbox"/> _____ | <input checked="" type="checkbox"/> cattail | <input type="checkbox"/> pipewort |
| <input type="checkbox"/> _____ | <input type="checkbox"/> wild calla | <input type="checkbox"/> quillwort (Isoetes) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> pickerel weed | <input type="checkbox"/> shoregrass (Littorella) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water lobelia |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water bulrush |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water marigold |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> golden hedgehyssop |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |

Specimens collected? Yes No (give to Botany staff)

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae

Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (circle one) Lower Higher Average Don't know

Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____

Threats/concerns: Thick vegetation in bays, AIS in area lakes.

AIS Lake Survey Record

Surveyor(s) Tiffiney Kleczewski, Flambeau Eng Date 8.12.13 Time on survey 10:10-1:30

Lake Chaney Township 45 N Range 45 W Section 15

Weather sunny, caoIm

Boat launch description/condition gravel road, concrete ramp, pit toilet

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (*circle one*) Lower Higher Average Don't know

Survey area description (also sketch on topo map) _____

Water color brown Turbidity secchi 6', high stain

AIS observed

circle **NONE** *or use lines below*

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake (*circle* low, medium, high, type) no boats at landing or on lake

Shoreline development low - some homes/cabins on north end

Connection to other waterbodies headwaters west branch Presque Isle River, Joann Lake

Potential for AIS establishment (low, *circle* medium, high, why, likely invaders) low use, low development, high stain, limited easy access from highway, thick vegetation but thick where it grows; thick potamogeton robbinsi.

Do you think an annual AIS check is needed or could the interval be less frequent? Less frequent

Explain low use, low development but easy access from highway.

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 8.12.13 Time on survey 10:10-1:30

Lake Chaney Township 45 N Range 45 W Section 15 or County Gogebic

General description of lake (setting, nutrient level, obvious concerns):

Moderate development on north half of lake. Stained water, dense submersed plant growth in limited areas, dense floating leaf and emergent in limited areas.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (10 %) Emergents (10 %) Submergents (20 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|--|---|--|
| <u>C</u> yellow water lily (spatterdock) | <u> </u> 3-way sedge | <u> </u> chara or nitella |
| <u>C</u> white water lily | <u> </u> sedge (other than 3-way) | <u> </u> watermilfoil : Eurasian, northern |
| <u>C</u> water shield | <u>C</u> rush | <u> </u> variable-leaf, other |
| <u> </u> bur-reed | <u> </u> wild rice | <u> </u> coontail |
| <u>T</u> pondweed: <u>ribbonleaf, largeleaf,</u> | <u> </u> grass (other than wild rice) | <u> </u> water buttercup |
| <u>floatingleaf, variableleaf, other</u> | <u> </u> arrowhead | <u>T</u> bladderwort |
| <u> </u> duckweed | <u> </u> spikerush | <u>T</u> elodea (waterweed) |
| <u> </u> water knotweed | <u> </u> water horsetail | <u>D</u> pondweed: CLP <u>robbins,</u> small, |
| <u> </u> water starwort | <u> </u> iris | <u>claspingleaf</u> flatstem, other LEAFY |
| <u> </u> _____ | <u> </u> cattail | WHITESTE |
| <u> </u> _____ | <u> </u> wild calla | M |
| <u> </u> _____ | <u> </u> pickerel weed | <u>T</u> naiad |
| <u> </u> _____ | <u> </u> _____ | <u> </u> wild celery |
| <u> </u> _____ | <u> </u> _____ | <u> </u> pipewort |
| <u> </u> _____ | <u> </u> _____ | <u> </u> quillwort (Isoetes) |
| <u> </u> _____ | <u> </u> _____ | <u> </u> shoregrass (Littorella) |
| <u> </u> _____ | <u> </u> _____ | <u> </u> water lobelia |
| <u> </u> _____ | <u> </u> _____ | <u> </u> water bulrush |
| <u> </u> _____ | <u> </u> _____ | <u>T</u> water marigold |
| <u> </u> _____ | <u> </u> _____ | <u> </u> golden hedgehyssop |
| <u> </u> _____ | <u> </u> _____ | <u> </u> _____ |
| <u> </u> _____ | <u> </u> _____ | <u> </u> _____ |
| <u> </u> _____ | <u> </u> _____ | <u> </u> _____ |

Specimens collected? Yes No (give to Botany staff)

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae

Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (circle one) Lower Higher Average Don't know

Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____

Threats/concerns: No AIS mapped in area, not near any towns, easy access.

AIS Lake Survey Record

Surveyor(s) Tiffany Kleczewski, Flambeau Eng Date 7.22.13 Time on survey 11:30-12:20

Lake DAWN Township 45 N Range 42 W Section 31

Weather sunny, light breeze

Boat launch description/condition carry in only

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris **Unknown** Other _____

Present lake level relative to average (*circle one*) Lower Higher **Average** Don't know

Survey area description (also sketch on topo map) forested, bog, 100% USFS forest

Water color dark brown Turbidity low, very stained

AIS observed

circle **NONE** *or use lines below*

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake **low** (low, medium, high, type) fishing, paddling

Shoreline development none

Connection to other waterbodies none

Potential for AIS establishment **low** (low, medium, high, why, likely invaders) limited access, low use; EWM in area lake

Do you think an annual AIS check is needed or could the interval be less frequent? less frequent

Explain low use, carry in access only limits AIS potential from boats

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 7.22.13 Time on survey 11:30-12:20

Lake DAWN Township 45 N Range 42 W Section 31 or County Gogebic

General description of lake (setting, nutrient level, obvious concerns):

Forested, bog, no development, carry in access. High stain, low nutrient, sparse plant growth.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (1 %) Emergents (____%) Submergents (1%)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|--|-----------------------------------|---|
| <u>T</u> yellow water lily (spatterdock) | ____ 3-way sedge | ____ chara or nitella |
| ____ white water lily | ____ sedge (other than 3-way) | <u>T</u> watermilfoil : Eurasian, northern |
| <u>T</u> water shield | ____ rush | <u>variable-leaf</u> , other |
| <u>T</u> bur-reed | ____ wild rice | ____ coontail |
| ____ pondweed: ribbonleaf, largeleaf, | ____ grass (other than wild rice) | ____ water buttercup |
| floatingleaf, variableleaf, other | ____ arrowhead | <u>T</u> bladderwort |
| ____ duckweed | ____ spikerush | ____ elodea (waterweed) |
| ____ water knotweed | ____ water horsetail | <u>T</u> pondweed: CLP, robbins, <u>small</u> , |
| ____ water starwort | ____ iris | claspingleaf, flatstem, other |
| ____ _____ | ____ cattail | ____ naiad |
| ____ _____ | ____ wild calla | ____ wild celery |
| ____ _____ | ____ pickerel weed | ____ pipewort |
| ____ _____ | ____ _____ | ____ quillwort (Isoetes) |
| | | ____ shoregrass (Littorella) |
| | | ____ water lobelia |
| | | ____ water bulrush |
| | | ____ water marigold |
| | | ____ golden hedgehyssop |

Specimens collected? Yes No (give to Botany staff)

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae
Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (circle one) Lower Higher Average Don't know

Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____

Threats/concerns: _____

AIS Lake Survey Record

Surveyor(s) Tiffiney Kleczewski, Flambeau Eng Date 7.24.13 Time on survey 8:20-10:00

Lake Emily Township 43 N Range 34 W Section 36-6

Weather sunny, mild, light breeze

Boat launch description/condition paved road, parking, concrete ramp with dock

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (*circle one*) Lower Higher Average Don't know

Survey area description (also sketch on topo map) Near Iron River, good access.

Water color clear Turbidity secchi 7'

AIS observed

circle NONE or use lines below

Species Viviparus georgianus Location (in lake) boat launch

Abundance moderate GPS 46d06m43.31s, 88d29m43.14s

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake (low, medium, high, type) High - recreational, fishing

Shoreline development High

Connection to other waterbodies Chicagon creek, Branch Paint River

Potential for AIS establishment (low, medium, high, why, likely invaders) High - all AIS could invade due to high use and development; near Iron River. Documented CLP and Zebra mussels in past surveys; none found in 2013.

Do you think an annual AIS check is needed or could the interval be less frequent? Yes

Explain already 3 AIS. Very heavy growth of northern watermifoil, EWM may grow well also.

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 7.24.13 Time on survey 8:20-10:00

Lake Emily Township 43 N Range 34 W Section 36/6 or County Iron

General description of lake (setting, nutrient level, obvious concerns):

Near Iron River, developed shoreline, good landing, high use.
Heavy weed growth inhibits navigation on portions of lake.
Mystery snail found in 2013. CLP and Zebra mussel found in other surveys.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (15 %) Emergents (10 %) Submergents (30 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|---|---|--|
| <u>T</u> yellow water lily (spatterdock) | <u> </u> 3-way sedge | <u>C</u> chara or nitella |
| <u>T</u> white water lily | <u> </u> sedge (other than 3-way) | <u>D</u> watermilfoil : Eurasian, <u>northern</u> |
| <u> </u> water shield | <u>C</u> rush | <u> </u> variable-leaf, other |
| <u> </u> bur-reed | <u> </u> wild rice | <u> </u> coontail |
| <u>C</u> pondweed: ribbonleaf, largeleaf, | <u> </u> grass (other than wild rice) | <u> </u> water buttercup |
| floatingleaf, <u>variableleaf</u> , other | <u> </u> arrowhead | <u> </u> bladderwort |
| <u> </u> duckweed | <u> </u> spikerush | <u>C</u> elodea (waterweed) |
| <u> </u> water knotweed | <u> </u> water horsetail | <u>C</u> pondweed: CLP, robbins, small, |
| <u> </u> water starwort | <u> </u> iris | <u> </u> <u>claspingleaf</u> flatstem, other LEAFY |
| <u> </u> _____ | <u> </u> cattail | <u> </u> naiad |
| <u> </u> _____ | <u> </u> wild calla | <u>T</u> wild celery |
| <u> </u> _____ | <u> </u> pickerel weed | <u> </u> pipewort |
| <u> </u> _____ | <u> </u> _____ | <u> </u> quillwort (Isoetes) |
| | | <u> </u> shoregrass (Littorella) |
| | | <u> </u> water lobelia |
| | | <u> </u> water bulrush |
| | | <u> </u> water marigold |
| | | <u> </u> golden hedgehyssop |
| | | <u> </u> _____ |
| | | <u> </u> _____ |
| | | <u> </u> _____ |

Specimens collected? Yes No (give to Botany staff)

Mystery snail

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae secchi 7'
Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____
Present lake level relative to average (circle one) Lower Higher Average Don't know
Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only
INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____

Threats/concerns: All AIS present in area lakes, high use lake with good landing.

AIS Lake Survey Record

Surveyor(s) Tiffiney Kleczewski, Flambeau Eng Date 8.14.13 Time on survey 6:40-9:45

Lake HAGERMAN Township 42 N Range 36 W Section 11

Weather cool, cloudy, calm

Boat launch description/condition paved, boat wash, beach

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (*circle one*) Lower Higher Average Don't know

Survey area description (also sketch on topo map) near Iron River and other high use lakes. Very developed shoreline.
10% USFS forest

Water color clear/lt green Turbidity low, some algae secchi 11'

AIS observed

circle **NONE** *or use lines below*

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake (low, medium, high, type) recreation, fishing

Shoreline development high, many large homes and cabins

Connection to other waterbodies none

Potential for AIS establishment (low, medium, high, why, likely invaders) All AIS mapped in area, high use near other large, high use lakes, boat wash at landing. EWM, CLP, zebra, rusty, mystery in area waters

Do you think an annual AIS check is needed or could the interval be less frequent? yes

Explain high use, AIS in area

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 8.14.13 Time on survey 6:40-9:45

Lake HAGERMAN Township 42 N Range 36 W Section 11 or County Iron

General description of lake (setting, nutrient level, obvious concerns):

Low nutrients, slight algae bloom, sparse vegetation in lake, thicker in bays. Highly developed.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (1 %) Emergents (2 %) Submergents (5 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|--|---|---|
| <input type="radio"/> yellow water lily (spatterdock) | <input type="checkbox"/> 3-way sedge | <input type="checkbox"/> chara or nitella |
| <input type="radio"/> white water lily | <input type="checkbox"/> sedge (other than 3-way) | <input type="checkbox"/> watermilfoil : Eurasian, northern |
| <input type="radio"/> water shield | <input checked="" type="radio"/> C rush | <input type="checkbox"/> variable-leaf, other |
| <input type="checkbox"/> bur-reed | <input type="checkbox"/> wild rice | <input type="checkbox"/> coontail |
| <input checked="" type="radio"/> D pondweed: ribbonleaf <input checked="" type="checkbox"/> largeleaf, | <input type="checkbox"/> grass (other than wild rice) | <input type="checkbox"/> water buttercup |
| <input checked="" type="radio"/> T <input checked="" type="checkbox"/> floatingleaf, variableleaf, other | <input type="checkbox"/> arrowhead | <input type="checkbox"/> bladderwort |
| <input type="checkbox"/> duckweed | <input type="checkbox"/> spikerush | <input checked="" type="radio"/> T elodea (waterweed) |
| <input type="checkbox"/> water knotweed | <input type="checkbox"/> water horsetail | <input checked="" type="radio"/> D pondweed: CLP, <input checked="" type="checkbox"/> robbins, small, |
| <input type="checkbox"/> water starwort | <input type="checkbox"/> iris | <input type="checkbox"/> claspingleaf, <input checked="" type="checkbox"/> flatstem, other |
| <input checked="" type="radio"/> T <u>long leaf pondweed</u> | <input checked="" type="radio"/> O cattail | <input checked="" type="radio"/> T naiad |
| <input type="checkbox"/> _____ | <input type="checkbox"/> wild calla | <input type="checkbox"/> wild celery |
| <input type="checkbox"/> _____ | <input type="checkbox"/> pickerel weed | <input type="checkbox"/> pipewort |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> quillwort (Isoetes) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> shoregrass (Littorella) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water lobelia |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water bulrush |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water marigold |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> golden hedgehyssop |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input checked="" type="radio"/> T <u>flatstem pondweed</u> |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |

Specimens collected? Yes No (give to Botany staff)

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae slight

Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (circle one) Lower Higher Average Don't know

Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____

Threats/concerns: AIS in area, high use lake

AIS Lake Survey Record

Surveyor(s) Tiffany Kleczewski, Flambeau Eng Date 7.22.13 Time on survey 1:20-3:20

Lake HELEN Township 45 N Range 40 W Section 32

Weather sunny, light breeze

Boat launch description/condition Carry in, parking near road off paved road

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris **Unknown** Other _____

Present lake level relative to average (*circle one*) Lower Higher **Average** Don't know

Survey area description (also sketch on topo map) Forested upland, near Sylvania wilderness; 100% USFS forest

Water color light brown Turbidity low

AIS observed

circle **NONE** *or use lines below*

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake (**low**, medium, high, type) fishing, paddling

Shoreline development none

Connection to other waterbodies none

Potential for AIS establishment (low, **medium**, high, why, likely invaders) EWM, CLP, rusty in nearby waters, easy access to lake.

Do you think an annual AIS check is needed or could the interval be less frequent? Yes

Explain nearby AIS mapped, easy access off paved road.

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 7.22.13 Time on survey 12:55-3:20

Lake HELEN Township 45 N Range 40 W Section 32 or County Gogebic

General description of lake (setting, nutrient level, obvious concerns):

Upland forest, near Sylvania Wilderness, low nutrient, sparse vegetation.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (8 %) Emergents (5 %) Submergents (0 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|---|--|---|
| <input type="checkbox"/> yellow water lily (spatterdock) | <input checked="" type="checkbox"/> 3-way sedge | <input type="checkbox"/> chara or nitella |
| <input type="checkbox"/> white water lily | <input type="checkbox"/> sedge (other than 3-way) | <input type="checkbox"/> watermilfoil : Eurasian, northern variable-leaf, other |
| <input checked="" type="checkbox"/> water shield | <input checked="" type="checkbox"/> rush | <input type="checkbox"/> coontail |
| <input checked="" type="checkbox"/> bur-reed | <input type="checkbox"/> wild rice | <input type="checkbox"/> water buttercup |
| <input type="checkbox"/> pondweed: ribbonleaf, largeleaf, floatingleaf, variableleaf, other | <input checked="" type="checkbox"/> grass (other than wild rice) | <input type="checkbox"/> bladderwort |
| <input type="checkbox"/> duckweed | <input type="checkbox"/> arrowhead | <input type="checkbox"/> elodea (waterweed) |
| <input type="checkbox"/> water knotweed | <input type="checkbox"/> spikerush | <input type="checkbox"/> pondweed: CLP, robbins, small, claspingleaf, flatstem, other |
| <input type="checkbox"/> water starwort | <input type="checkbox"/> water horsetail | <input type="checkbox"/> naiad |
| <input type="checkbox"/> _____ | <input type="checkbox"/> iris | <input type="checkbox"/> wild celery |
| <input type="checkbox"/> _____ | <input type="checkbox"/> cattail | <input type="checkbox"/> pipewort |
| <input type="checkbox"/> _____ | <input type="checkbox"/> wild calla | <input type="checkbox"/> quillwort (Isoetes) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> pickerel weed | <input type="checkbox"/> shoregrass (Littorella) |
| | | <input type="checkbox"/> water lobelia |
| | | <input type="checkbox"/> water bulrush |
| | | <input type="checkbox"/> water marigold |
| | | <input type="checkbox"/> golden hedgehyssop |
| | | <input type="checkbox"/> _____ |
| | | <input type="checkbox"/> _____ |
| | | <input type="checkbox"/> _____ |

Specimens collected? Yes No (give to Botany staff)

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae

Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (circle one) Lower Higher Average Don't know

Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____

Threats/concerns: _____

AIS Lake Survey Record

Surveyor(s) Tiffiney Kleczewski, Flambeau Eng Date 8.12.13 Time on survey 2:25-3:20

Lake Henry Township 45 N Range 44 W Section 3

Weather sunny, light breeze

Boat launch description/condition gravel

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (*circle one*) Lower Higher Average Don't know

Survey area description (also sketch on topo map) bog lake, high stain, forested and bog; 100% USFS forest

Water color dark brown Turbidity high stain secchi 4'

AIS observed

circle NONE *or use lines below*

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake (low, medium, high, type) no boats at landing or on water; paddling, fishing?

Shoreline development none except USFS campground

Connection to other waterbodies none

Potential for AIS establishment (low, medium, high, why, likely invaders) very stained bog lake with low use and sparse vegetation; plant AIS unlikely due to stain and low use.

Do you think an annual AIS check is needed or could the interval be less frequent? less frequent

Explain low use but may be higher due to campground

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 8.12.13 Time on survey 2:25-3:20

Lake Henry Township 45 N Range 44 W Section 3 or County Gogebic

General description of lake (setting, nutrient level, obvious concerns):
Low nutrients, very stained water. No development except campground.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (10 %) Emergents (5 %) Submergents (5 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|--|---|---|
| <input type="checkbox"/> yellow water lily (spatterdock) | <input checked="" type="checkbox"/> 3-way sedge | <input type="checkbox"/> chara or nitella |
| <input type="checkbox"/> white water lily | <input type="checkbox"/> sedge (other than 3-way) | <input type="checkbox"/> watermilfoil : Eurasian, northern variable-leaf, other |
| <input checked="" type="checkbox"/> water shield | <input type="checkbox"/> rush | <input type="checkbox"/> coontail |
| <input checked="" type="checkbox"/> bur-reed | <input type="checkbox"/> wild rice | <input type="checkbox"/> water buttercup |
| <input checked="" type="checkbox"/> pondweed: <u>ribbonleaf</u> largeleaf, floatingleaf, variableleaf, other | <input type="checkbox"/> grass (other than wild rice) | <input checked="" type="checkbox"/> bladderwort |
| <input type="checkbox"/> duckweed | <input type="checkbox"/> arrowhead | <input type="checkbox"/> elodea (waterweed) |
| <input type="checkbox"/> water knotweed | <input type="checkbox"/> spikerush | <input type="checkbox"/> pondweed: CLP, robbins, small, claspingleaf, flatstem, other |
| <input type="checkbox"/> water starwort | <input type="checkbox"/> water horsetail | <input type="checkbox"/> naiad |
| <input type="checkbox"/> _____ | <input type="checkbox"/> iris | <input type="checkbox"/> wild celery |
| <input type="checkbox"/> _____ | <input type="checkbox"/> cattail | <input type="checkbox"/> pipewort |
| <input type="checkbox"/> _____ | <input type="checkbox"/> wild calla | <input type="checkbox"/> quillwort (Isoetes) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> pickerel weed | <input type="checkbox"/> shoregrass (Littorella) |
| | | <input type="checkbox"/> water lobelia |
| | | <input type="checkbox"/> water bulrush |
| | | <input type="checkbox"/> water marigold |
| | | <input type="checkbox"/> golden hedgehyssop |
| | | <input type="checkbox"/> _____ |
| | | <input type="checkbox"/> _____ |
| | | <input type="checkbox"/> _____ |

Specimens collected? Yes No (give to Botany staff)

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae

Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (circle one) Lower Higher Average Don't know

Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____

Threats/concerns: _____

AIS Lake Survey Record

Surveyor(s) Tiffiney Kleczewski, Flambeau Eng Date 7.22.13 Time on survey 10:00-11:00

Lake HOLLY Township 45 N Range 42 W Section 30

Weather sunny, calm

Boat launch description/condition carry in only

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris **Unknown** Other _____

Present lake level relative to average (*circle one*) Lower Higher **Average** Don't know

Survey area description (also sketch on topo map) forested, bog, no development; 100% USFS forest

Water color dark brown Turbidity low, high stain

AIS observed

circle **NONE** *or use lines below*

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake **(low)** (low, medium, high, type) fishing, paddling

Shoreline development none

Connection to other waterbodies Holly Creek

Potential for AIS establishment **(low)** (low, medium, high, why, likely invaders) No AIS mapped in area, staining could limit plant AIS.

Do you think an annual AIS check is needed or could the interval be less frequent? less frequent

Explain low use, carry in access limits AIS transport

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 7.22.13 Time on survey 10:00-11:00

Lake HOLLY Township 45 N Range 42 W Section 30 or County Gogebic

General description of lake (setting, nutrient level, obvious concerns):

Forested, bog, no development, low nutrients, sparse plants.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (5 %) Emergents (5 %) Submergents (5 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> yellow water lily (spatterdock) | <input checked="" type="checkbox"/> 3-way sedge | <input type="checkbox"/> chara or nitella |
| <input type="checkbox"/> white water lily | <input type="checkbox"/> sedge (other than 3-way) | <input type="checkbox"/> watermilfoil : Eurasian, northern variable-leaf, other |
| <input checked="" type="checkbox"/> water shield | <input type="checkbox"/> rush | <input type="checkbox"/> coontail |
| <input checked="" type="checkbox"/> bur-reed | <input type="checkbox"/> wild rice | <input type="checkbox"/> water buttercup |
| <input checked="" type="checkbox"/> pondweed: ribbonleaf, <input checked="" type="checkbox"/> largeleaf, floatingleaf, variableleaf, other | <input type="checkbox"/> grass (other than wild rice) | <input type="checkbox"/> bladderwort |
| <input type="checkbox"/> duckweed | <input type="checkbox"/> arrowhead | <input type="checkbox"/> elodea (waterweed) |
| <input type="checkbox"/> water knotweed | <input type="checkbox"/> spikerush | <input checked="" type="checkbox"/> pondweed: CLP, robbins, <input checked="" type="checkbox"/> small, claspingleaf, flatstem, other |
| <input type="checkbox"/> water starwort | <input type="checkbox"/> water horsetail | <input type="checkbox"/> naiad |
| <input type="checkbox"/> _____ | <input type="checkbox"/> iris | <input type="checkbox"/> wild celery |
| <input type="checkbox"/> _____ | <input type="checkbox"/> cattail | <input type="checkbox"/> pipewort |
| <input type="checkbox"/> _____ | <input type="checkbox"/> wild calla | <input checked="" type="checkbox"/> quillwort (Isoetes) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> pickerel weed | <input type="checkbox"/> shoregrass (Littorella) |
| | | <input type="checkbox"/> water lobelia |
| | | <input type="checkbox"/> water bulrush |
| | | <input type="checkbox"/> water marigold |
| | | <input type="checkbox"/> golden hedgehyssop |
| | | <input type="checkbox"/> _____ |
| | | <input type="checkbox"/> _____ |
| | | <input type="checkbox"/> _____ |

Specimens collected? Yes No (give to Botany staff)

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae

Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (circle one) Lower Higher Average Don't know

Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____

Threats/concerns: low use, no AIS mapped in area

AIS Lake Survey Record

Surveyor(s) Tiffany Kleczewski, Flambeau Eng Date 8.13.13 Time on survey 10:20-11:30

Lake IMP Township 44 N Range 38 W Section 16

Weather Partly cloudy, cool, light breeze

Boat launch description/condition gravel, rough, shallow

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (*circle one*) Lower Higher Average Don't know

Survey area description (also sketch on topo map) Forested, campground and cabins

Water color clear Turbidity very low secchi 15'+

AIS observed

circle NONE *or use lines below*

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake (low, medium high, type) Boats from campground

Shoreline development moderate, high use campground and cabins

Connection to other waterbodies none

Potential for AIS establishment (low, medium high, why, likely invaders) Any AIS; none mapped in area

Do you think an annual AIS check is needed or could the interval be less frequent? Yes

Explain Campground appears to have high use with boats.

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 8.13.13 Time on survey 10:20-11:30

Lake IMP Township 44 N Range 38 W Section 16 or County Gogebic

General description of lake (setting, nutrient level, obvious concerns):

Forested, low nutrients, clear water, sparse vegetation. Campground and cabins.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (1 %) Emergents (0 %) Submergents (0 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|---|---|---|
| <input checked="" type="checkbox"/> T yellow water lily (spatterdock) | <input checked="" type="checkbox"/> T 3-way sedge | <input type="checkbox"/> chara or nitella |
| <input type="checkbox"/> white water lily | <input type="checkbox"/> sedge (other than 3-way) | <input type="checkbox"/> watermilfoil : Eurasian, northern variable-leaf, other |
| <input type="checkbox"/> water shield | <input checked="" type="checkbox"/> C rush | <input type="checkbox"/> coontail |
| <input checked="" type="checkbox"/> C bur-reed | <input type="checkbox"/> wild rice | <input type="checkbox"/> water buttercup |
| <input type="checkbox"/> pondweed: ribbonleaf, largeleaf, floatingleaf, variableleaf, other | <input type="checkbox"/> grass (other than wild rice) | <input type="checkbox"/> bladderwort |
| <input type="checkbox"/> duckweed | <input type="checkbox"/> arrowhead | <input type="checkbox"/> elodea (waterweed) |
| <input type="checkbox"/> water knotweed | <input type="checkbox"/> spikerush | <input checked="" type="checkbox"/> T pondweed: CLP, robbins, small, claspingleaf, flatstem other |
| <input type="checkbox"/> water starwort | <input type="checkbox"/> water horsetail | <input type="checkbox"/> naiad |
| <input type="checkbox"/> _____ | <input type="checkbox"/> iris | <input type="checkbox"/> wild celery |
| <input type="checkbox"/> _____ | <input type="checkbox"/> cattail | <input type="checkbox"/> pipewort |
| <input type="checkbox"/> _____ | <input type="checkbox"/> wild calla | <input type="checkbox"/> quillwort (Isoetes) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> pickerel weed | <input type="checkbox"/> shoregrass (Littorella) |
| | | <input type="checkbox"/> water lobelia |
| | | <input type="checkbox"/> water bulrush |
| | | <input type="checkbox"/> water marigold |
| | | <input type="checkbox"/> golden hedgehyssop |

Specimens collected? Yes No (give to Botany staff)

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae slight secchi 15'

Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (circle one) Lower Higher Average Don't know

Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____

Threats/concerns: Use from busy campground, no AIS mapped in area.

AIS Lake Survey Record

Surveyor(s) Tiffiney Kleczewski, Flambeau Eng Date 8.13.13 Time on survey 4:45-5:50

Lake JAMES Township 44 N Range 37 W Section 14

Weather partly cloudy, light breeze

Boat launch description/condition gravel, shallow

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (*circle one*) Lower Higher Average Don't know

Survey area description (also sketch on topo map) Forested, developed on south side. 80% USFS forest

Water color light green Turbidity low secchi 7' to bottom

AIS observed

circle NONE *or use lines below*

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake (low, medium, high, type) fishing, paddling

Shoreline development Seasonal cabins on south side

Connection to other waterbodies none

Potential for AIS establishment (low, medium, high, why, likely invaders) Use appears low, mainly by lakeshore residence. Shallow lake with sparse vegetation, near Iron River, easy access, AIS in area: EWM, rusty, CLP, zebra, mystery.

Do you think an annual AIS check is needed or could the interval be less frequent? less frequent

Explain low use but potential of AIS due to location.

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 8.13.13 Time on survey 4:45-5:50

Lake JAMES Township 44 N Range 37 W Section 14 or County Iron

General description of lake (setting, nutrient level, obvious concerns):

Forest with development on south shore, low nutrient, sparse vegetation.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (1 %) Emergents (1 %) Submergents (0 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|--|-----------------------------------|---------------------------------------|
| <u>T</u> yellow water lily (spatterdock) | <u>C</u> 3-way sedge | ___ chara or nitella |
| ___ white water lily | <u>C</u> sedge (other than 3-way) | ___ watermilfoil : Eurasian, northern |
| ___ water shield | ___ rush | variable-leaf, other |
| <u>O</u> bur-reed | ___ wild rice | ___ coontail |
| ___ pondweed: ribbonleaf, largeleaf, | ___ grass (other than wild rice) | ___ water buttercup |
| floatingleaf, variableleaf, other | ___ arrowhead | ___ bladderwort |
| ___ duckweed | ___ spikerush | ___ elodea (waterweed) |
| ___ water knotweed | ___ water horsetail | ___ pondweed: CLP, robbins, small, |
| ___ water starwort | ___ iris | claspingleaf, flatstem, other |
| ___ _____ | ___ cattail | ___ naiad |
| ___ _____ | ___ wild calla | ___ wild celery |
| ___ _____ | ___ pickerel weed | ___ pipewort |
| ___ _____ | ___ _____ | ___ quillwort (Isoetes) |
| | ___ _____ | ___ shoregrass (Littorella) |
| | ___ _____ | ___ water lobelia |
| | ___ _____ | ___ water bulrush |
| | | ___ water marigold |
| | | ___ golden hedgehyssop |
| | | ___ _____ |
| | | ___ _____ |
| | | ___ _____ |

Specimens collected? Yes No (give to Botany staff)

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae

Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (circle one) Lower Higher Average Don't know

Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____

Threats/concerns: _____

AIS Lake Survey Record

Surveyor(s) Tiffany Kleczewski, Flambeau Eng Date 7.22.13 Time on survey 6:00-6:30

Lake KUNZE Township 47 N Range 35 W Section 30

Weather sunny, light breeze

Boat launch description/condition carry in only, good road to landing

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris **Unknown** Other _____

Present lake level relative to average (*circle one*) Lower Higher **Average** Don't know

Survey area description (also sketch on topo map) Forested and bog; 100% USFS forest

Water color very dark brown Turbidity low - very stained

AIS observed

circle **NONE** *or use lines below*

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake (**low**, medium, high, type) paddling, fishing

Shoreline development none

Connection to other waterbodies outlet stream?

Potential for AIS establishment (**low**, medium, high, why, likely invaders) rusty crayfish in area lakes, carry in only, low use.

Do you think an annual AIS check is needed or could the interval be less frequent? less frequent

Explain low use, rusty in area, very stained.

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 7.22.13 Time on survey 6:00-6:30

Lake KUNZE Township 47 N Range 35 W Section 30 or County Houghton

General description of lake (setting, nutrient level, obvious concerns):

low nutrient, very stained, forested/bog, carry in access only.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (2 %) Emergents (2 %) Submergents (1 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|--|---|---|
| <input checked="" type="checkbox"/> yellow water lily (spatterdock) | <input type="checkbox"/> 3-way sedge | <input type="checkbox"/> chara or <input checked="" type="checkbox"/> nitella |
| <input type="checkbox"/> white water lily | <input type="checkbox"/> sedge (other than 3-way) | <input type="checkbox"/> watermilfoil : Eurasian, northern variable-leaf, other |
| <input checked="" type="checkbox"/> water shield | <input type="checkbox"/> rush | <input type="checkbox"/> coontail |
| <input checked="" type="checkbox"/> bur-reed | <input type="checkbox"/> wild rice | <input type="checkbox"/> water buttercup |
| <input checked="" type="checkbox"/> pondweed: ribbonleaf, <input checked="" type="checkbox"/> largeleaf, floatingleaf, variableleaf, other | <input type="checkbox"/> grass (other than wild rice) | <input type="checkbox"/> bladderwort |
| <input type="checkbox"/> duckweed | <input type="checkbox"/> arrowhead | <input type="checkbox"/> elodea (waterweed) |
| <input type="checkbox"/> water knotweed | <input type="checkbox"/> spikerush | <input type="checkbox"/> pondweed: CLP, robbins, small, claspingleaf, flatstem, other |
| <input type="checkbox"/> water starwort | <input type="checkbox"/> water horsetail | <input type="checkbox"/> naiad |
| <input type="checkbox"/> _____ | <input type="checkbox"/> iris | <input type="checkbox"/> wild celery |
| <input type="checkbox"/> _____ | <input type="checkbox"/> cattail | <input type="checkbox"/> pipewort |
| <input type="checkbox"/> _____ | <input type="checkbox"/> wild calla | <input type="checkbox"/> quillwort (Isoetes) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> pickerel weed | <input type="checkbox"/> shoregrass (Littorella) |
| | | <input type="checkbox"/> water lobelia |
| | | <input type="checkbox"/> water bulrush |
| | | <input type="checkbox"/> water marigold |
| | | <input type="checkbox"/> golden hedgehyssop |

Specimens collected? Yes No (give to Botany staff)

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae

Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (circle one) Lower Higher Average Don't know

Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____

Threats/concerns: sparse vegetation, very stained

AIS Lake Survey Record

Surveyor(s) Tiffany Kleczewski, Flambeau Eng Date 7.22.13 Time on survey 5:00-5:30

Lake LOWER DAM Township 47 N Range 36 W Section 23

Weather sunny, calm

Boat launch description/condition carry-in, unmarked, very steep

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris **Unknown** Other _____

Present lake level relative to average (*circle one*) Lower Higher **Average** Don't know

Survey area description (also sketch on topo map) Forested, small camping area, rural area; 100% USFS forest

Water color dark brown Turbidity low

AIS observed

circle **NONE** *or use lines below*

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake (**low**, medium, high, type) fishing, paddling

Shoreline development none except a few primitive campsites

Connection to other waterbodies Impoundment on Ontonagon River

Potential for AIS establishment (**low**, medium, high, why, likely invaders) Rusty crayfish in area lakes, low use and difficult carryin access.

Do you think an annual AIS check is needed or could the interval be less frequent? less frequent

Explain low use, difficult access, very stained.

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 7.22.13 Time on survey 5:00-5:30

Lake LOWER DAM Township 47 N Range 36 W Section 23 or County Houghton

General description of lake (setting, nutrient level, obvious concerns):

Forested, rural, impoundment of Ontonagon River, low nutrient, high stain. Small campground with few primitive sites.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (10 %) Emergents (2 %) Submergents (10 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|---|---|---|
| <input type="checkbox"/> yellow water lily (spatterdock) | <input type="checkbox"/> 3-way sedge | <input type="checkbox"/> chara or nitella |
| <input type="checkbox"/> white water lily | <input type="checkbox"/> sedge (other than 3-way) | <input type="checkbox"/> watermilfoil : Eurasian, northern variable-leaf, other |
| <input type="checkbox"/> water shield | <input checked="" type="checkbox"/> C rush | <input type="checkbox"/> coontail |
| <input type="checkbox"/> bur-reed | <input type="checkbox"/> wild rice | <input type="checkbox"/> water buttercup |
| <input checked="" type="checkbox"/> D pondweed: ribbonleaf, <u>largeleaf,</u> | <input type="checkbox"/> grass (other than wild rice) | <input type="checkbox"/> bladderwort |
| <input type="checkbox"/> floatingleaf, variableleaf, other | <input type="checkbox"/> arrowhead | <input checked="" type="checkbox"/> D elodea (waterweed) <u>AT INLET</u> |
| <input type="checkbox"/> duckweed | <input type="checkbox"/> spikerush | <input type="checkbox"/> pondweed: CLP, robbins, small, claspingleaf, flatstem, other |
| <input checked="" type="checkbox"/> D water knotweed | <input type="checkbox"/> water horsetail | <input type="checkbox"/> naiad |
| <input type="checkbox"/> water starwort | <input type="checkbox"/> iris | <input type="checkbox"/> wild celery |
| <input type="checkbox"/> _____ | <input type="checkbox"/> cattail | <input type="checkbox"/> pipewort |
| <input type="checkbox"/> _____ | <input type="checkbox"/> wild calla | <input type="checkbox"/> quillwort (Isoetes) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> pickerel weed | <input type="checkbox"/> shoregrass (Littorella) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water lobelia |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water bulrush |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water marigold |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> golden hedgehyssop |

Specimens collected? Yes No (give to Botany staff)

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae

Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (circle one) Lower Higher Average Don't know

Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____

Threats/concerns: _____

AIS Lake Survey Record

Surveyor(s) Tiffiney Kleczewski, Flambeau Eng Date 8.14.13 Time on survey 10:30-1:00

Lake OTTAWA Township N Range W Section

Weather sunny, mild

Boat launch description/condition paved, concrete ramp, pit toilets

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris Unknown Other

Present lake level relative to average (*circle one*) Lower Higher Average Don't know

Survey area description (also sketch on topo map) 100% USFS forest, campground, near Iron River

Water color clear - light green Turbidity low - some algae secchi 14'+

AIS observed

circle NONE *or use lines below*

Species Location (in lake)

Abundance GPS

Sample taken (*circle one*) Yes No

Species Location (in lake)

Abundance GPS

Sample taken (*circle one*) Yes No

Species Location (in lake)

Abundance GPS

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake (low, medium high, type) fishing, canoeing, swimming, recreation

Shoreline development none but campground

Connection to other waterbodies Iron River

Potential for AIS establishment (low, medium high, why, likely invaders) good landing, use from campground, fishing, all AIS in area lakes; EWM, CLP, zebra, mystery. Rusty documented in previous surveys; not observed in 2013.

Do you think an annual AIS check is needed or could the interval be less frequent? Yes

Explain very sparse plant growth with clear water, medium use from campground, near lakes with AIS

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 8.14.13 Time on survey 10:30-1:00

Lake OTTAWA Township 43 N Range 36 W Section 25 or County IRON

General description of lake (setting, nutrient level, obvious concerns):

Moderate nutrient level, sparse vegetation with slight algae bloom. Undeveloped except for campground. Very clear water.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (1 %) Emergents (1 %) Submergents (2 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|---|---|---|
| <input checked="" type="checkbox"/> yellow water lily (spatterdock) | <input type="checkbox"/> 3-way sedge | <input checked="" type="checkbox"/> chara or nitella |
| <input type="checkbox"/> white water lily | <input type="checkbox"/> sedge (other than 3-way) | <input type="checkbox"/> watermilfoil : Eurasian, northern variable-leaf, other |
| <input type="checkbox"/> water shield | <input checked="" type="checkbox"/> rush | <input type="checkbox"/> coontail |
| <input checked="" type="checkbox"/> bur-reed | <input type="checkbox"/> wild rice | <input type="checkbox"/> water buttercup |
| <input checked="" type="checkbox"/> pondweed: ribbonleaf, largeleaf, | <input type="checkbox"/> grass (other than wild rice) | <input type="checkbox"/> bladderwort |
| <input type="checkbox"/> floatingleaf, variableleaf, other | <input type="checkbox"/> arrowhead | <input checked="" type="checkbox"/> elodea (waterweed) |
| <input type="checkbox"/> duckweed | <input type="checkbox"/> spikerush | <input type="checkbox"/> pondweed: CLP, robbins, small, claspingleaf, flatstem, other |
| <input checked="" type="checkbox"/> water knotweed | <input type="checkbox"/> water horsetail | <input type="checkbox"/> naiad |
| <input type="checkbox"/> water starwort | <input type="checkbox"/> iris | <input type="checkbox"/> wild celery |
| <input type="checkbox"/> _____ | <input checked="" type="checkbox"/> cattail | <input type="checkbox"/> pipewort |
| <input type="checkbox"/> _____ | <input type="checkbox"/> wild calla | <input type="checkbox"/> quillwort (Isoetes) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> pickerel weed | <input type="checkbox"/> shoregrass (Littorella) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water lobelia |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water bulrush |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water marigold |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> golden hedgehyssop |

Specimens collected? Yes No (give to Botany staff)

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae SLIGHT SECCHI 14'

Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (circle one) Lower Higher Average Don't know

Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____

Threats/concerns: _____

AIS Lake Survey Record

Surveyor(s) Tiffiney Kleczewski, Flambeau Eng Date 8.15.13 Time on survey 7:30-10:45

Lake Paint Township 46 N Range 37 W Section 36

Weather sunny, mild

Boat launch description/condition very rough access road, ~ 1 mile long

Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (circle one) Lower Higher Average Don't know

Survey area description (also sketch on topo map) ~50% USFS forest, near Iron River

Water color light brown Turbidity secchi 7'

AIS observed

circle NONE or use lines below

Species Myriophyllum spicatum Location (in lake) around island and north shore

Abundance scattered GPS See attached sheet

Sample taken (circle one) Yes No

Species Viviparus georgianus Location (in lake) boat launch

Abundance moderate GPS 46d20m02.45s, 88d53m07.22s

Sample taken (circle one) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (circle one) Yes No

Vulnerability assessment

Apparent usage of lake (low, medium, high, type) medium - fishing, paddling. Observed several boats

Shoreline development Moderate development on north half of lake.

Connection to other waterbodies East Paint Lake, headwaters of Paint River

Potential for AIS establishment (low, medium, high, why, likely invaders) Would suspect low due to difficult, unmarked public access. Appears to be private landing on north end of lake used by landowners.

Do you think an annual AIS check is needed or could the interval be less frequent? Yes

Explain Already 2 AIS established.

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 8.15.13 Time on survey 7:30-10:45

Lake Paint Township 46 N Range 37 W Section 36 or County Iron

General description of lake (setting, nutrient level, obvious concerns):

Moderate development, remote public landing - hard to find and rough road. Despite landing used by fisherman. EWM and mystery snail found.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (15 %) Emergents (10 %) Submergents (20 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|---|---|--|
| <u>C</u> yellow water lily (spatterdock) | <u> </u> 3-way sedge | <u> </u> chara or nitella |
| <u>C</u> white water lily | <u>C</u> sedge (other than 3-way) | <u>T</u> watermilfoil : <u>Eurasian</u> <u>northern</u> <u>C</u> |
| <u> </u> water shield | <u> </u> rush | <u> </u> variable-leaf, other |
| <u> </u> bur-reed | <u> </u> wild rice | <u> </u> coontail |
| <u>C</u> pondweed: ribbonleaf, <u>largeleaf</u> , | <u> </u> grass (other than wild rice) | <u> </u> water buttercup |
| <u> </u> floatingleaf, variableleaf, other | <u> </u> arrowhead | <u>T</u> bladderwort |
| <u> </u> duckweed | <u> </u> spikerush | <u>C</u> elodea (waterweed) |
| <u> </u> water knotweed | <u> </u> water horsetail | <u>C/D</u> pondweed: CLP, robbins, <u>small</u> |
| <u> </u> water starwort | <u> </u> iris | <u> </u> <u>claspingleaf, flatstem</u> other |
| <u> </u> _____ | <u>O</u> cattail | <u> </u> naiad |
| <u> </u> _____ | <u> </u> wild calla | <u>C</u> wild celery |
| <u> </u> _____ | <u> </u> pickerel weed | <u> </u> pipewort |
| <u> </u> _____ | <u> </u> _____ | <u> </u> quillwort (Isoetes) |
| | | <u> </u> shoregrass (Littorella) |
| | | <u> </u> water lobelia |
| | | <u> </u> water bulrush |
| | | <u>T</u> water marigold |
| | | <u> </u> golden hedgehyssop |
| | | <u> </u> _____ |
| | | <u> </u> _____ |
| | | <u> </u> _____ |

Specimens collected? Yes No (give to Botany staff)

EWM AND MYSTERY SNAIL

SLIGHT ALGAE BLOOM SECCHI 7'

- Water clarity (circle one) Clear stained Turbid with sediment Turbid with algae
- Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____
- Present lake level relative to average (circle one) Lower Higher Average Don't know
- Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only
- INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other MYSTERY SNAIL

Threats/concerns: EWM AND MYSTERY SNAIL; DESPITE ROUGH LANDING AIS PRESENT.

Ottawa National Forest Weed Reporting Form

Weed Species: Myriophyllum spicatum Occurrence number: _____
Project name: Ottawa AIS Survey Site name: Paint

Location (Fill in either the legal description, latitude and longitude, UTM, or attach a map)

Legal Description: Twp 46 Rng 37 Sec 36 ¼ sec _____ ¼¼ sec _____

Latitude _____ Longitude _____

UTM _____

District: _____ Compartment: _____ Stand: _____

Directions to site (or include a detailed map) : Paint Lake - around island and north shore

Owner: _____ County: Iron

Infested gross area (acres): perimeter of island and north shore

% Gross Area Infested (typically 100%): 10

living room = .004 acres (12' x 16')
baseball diamond = 0.2 acres (90' x 90')
football field = 1.1 acres (300' x 160')

% **Cover** (canopy cover of the weed, 1 to 100): 10

Count: _____ (Circle one: plants or stems)

Dominant life form (circle one): Forbs, Graminoids, Nonvascular plants, Shrubs, Trees

Phenology (circle one): Pre-flowering , Flowering , Fruiting , Senescent

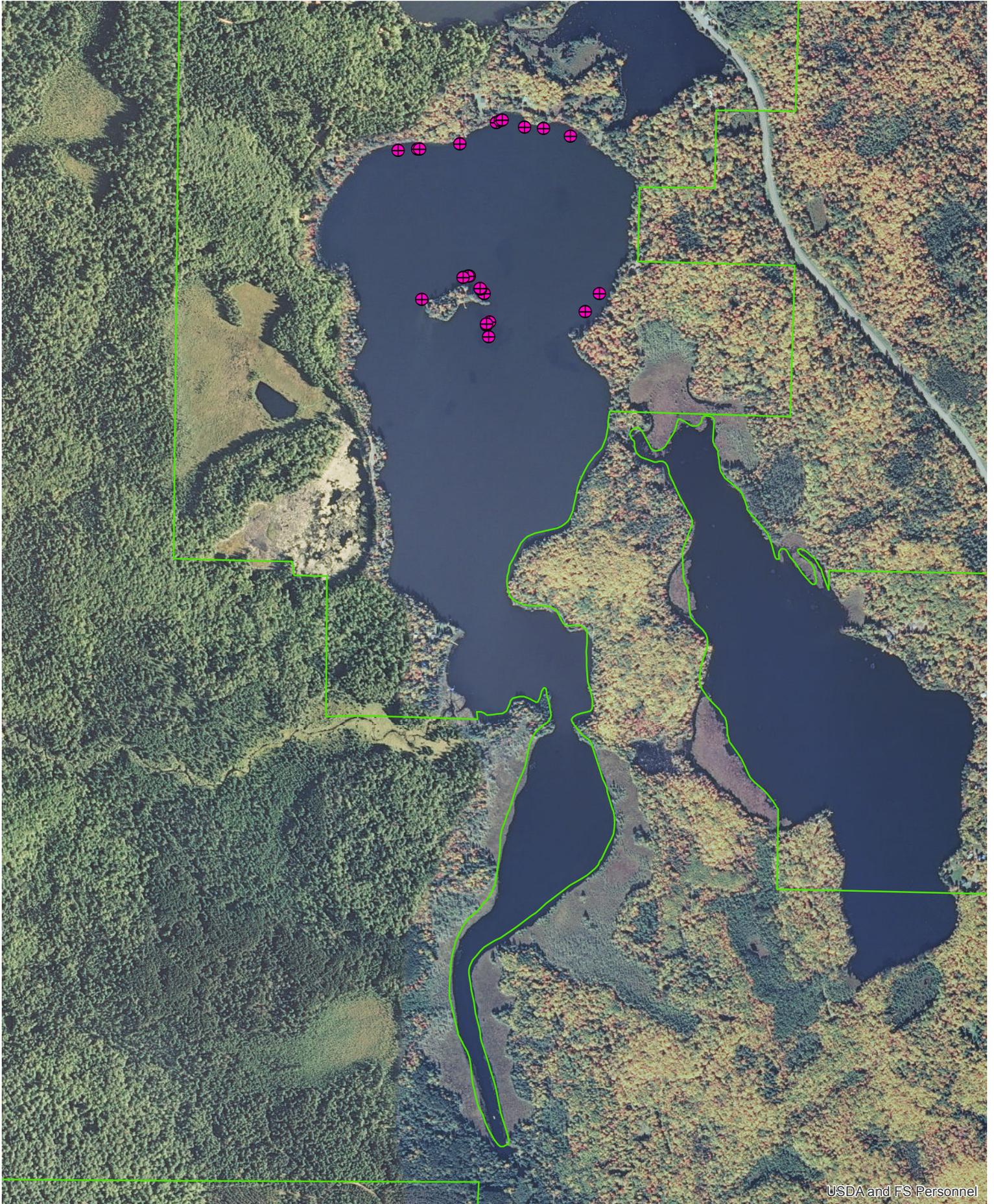
Distribution (circle one): Clumpy , Scattered patchy , Scattered even , Linear

Observer: Flambeau Engineering **Date observed:** 8.15.13

Address: PO Box 273 Park Falls, WI Phone: 715.965.3489

Comments: Scattered, sparse patches to single plants around island and north shore of lake.

AIS Survey Contract 2013: Paint Lake



USDA and FS Personnel



AIS Lake Survey Record

Surveyor(s) Tiffiney Kleczewski, Flambeau Eng Date 8.13.13 Time on survey 6:40-8:50

Lake Pomeroy Township 45 N Range 42 W Section 27-38

Weather sunny, calm, cool

Boat launch description/condition gravel road, concrete ramp, good parking

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (*circle one*) Lower Higher Average Don't know

Survey area description (also sketch on topo map) USFS land, campground, remote on gravel roads

Water color brown Turbidity green with algae secchi 3'

AIS observed

circle NONE or use lines below

Species Myriophyllum spicatum Location (in lake) perimeter of lake 3' to 6' deep

Abundance scattered pathes GPS see attached map

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake (low, medium, high, type) medium - recreational, fishing, paddling

Shoreline development low, USFS campground, private seasonal residence on islands

Connection to other waterbodies Orchard Creek, Pomeroy Creek

Potential for AIS establishment (low, medium, high, why, likely invaders) EWM established.

Do you think an annual AIS check is needed or could the interval be less frequent? Yes

Explain track EWM and check for other plant and animal AIS.

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 8.13.13 Time on survey 6:40-8:50

Lake Pomeroy Township 45 N Range 42 W Section 20 or County Gogebic

General description of lake (setting, nutrient level, obvious concerns):

Surrounded by USFS land; only development is campground. Moderate algae bloom with sparse vegetation. EWM present but not nuisance in 2.5 to 6 ft deep.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (25 %) Emergents (10 %) Submergents (5 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|---|---|--|
| <u>C</u> yellow water lily (spatterdock) | <u> </u> 3-way sedge | <u> </u> chara or nitella |
| <u>C</u> white water lily | <u>C</u> sedge (other than 3-way) | <u>D</u> watermilfoil : <u>Eurasian</u> , northern |
| <u> </u> water shield | <u>D</u> rush | <u> </u> variable-leaf, other |
| <u> </u> bur-reed | <u> </u> wild rice | <u> </u> coontail |
| <u>D</u> pondweed: ribbonleaf, <u>largeleaf</u> , | <u> </u> grass (other than wild rice) | <u> </u> water buttercup |
| <u> </u> floatingleaf, variableleaf, other | <u> </u> arrowhead | <u> </u> bladderwort |
| <u> </u> duckweed | <u> </u> spikerush | <u> </u> elodea (waterweed) |
| <u> </u> water knotweed | <u> </u> water horsetail | <u>T</u> pondweed: CLP, robbins, <u>small</u> |
| <u> </u> water starwort | <u> </u> iris | <u> </u> <u>claspingleaf</u> flatstem, other |
| <u> </u> _____ | <u>C</u> cattail | <u> </u> naiad |
| <u> </u> _____ | <u> </u> wild calla | <u> </u> wild celery |
| <u> </u> _____ | <u>C</u> pickerel weed | <u> </u> pipewort |
| <u> </u> _____ | <u> </u> _____ | <u> </u> quillwort (Isoetes) |
| | | <u> </u> shoregrass (Littorella) |
| | | <u> </u> water lobelia |
| | | <u> </u> water bulrush |
| | | <u> </u> water marigold |
| | | <u> </u> golden hedgehyssop |
| | | <u> </u> _____ |
| | | <u> </u> _____ |
| | | <u> </u> _____ |

Specimens collected? Yes No (give to Botany staff)

EWM

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae

Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (circle one) Lower Higher Average Don't know

Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____

Threats/concerns: EWM established but not at nuisance conditions. Few medium density stands otherwise sparse.

Ottawa National Forest Weed Reporting Form

Weed Species: Myriophyllum spicatum Occurrence number: _____
Project name: Ottawa AIS Survey Site name: Pomeroy Lake

Location (Fill in either the legal description, latitude and longitude, UTM, or attach a map)

Legal Description: Twp 45 Rng 42W Sec 20 ¼ sec _____ ¼¼ sec _____

Latitude _____ Longitude _____

UTM _____

District: _____ Compartment: _____ Stand: _____

Directions to site (or include a detailed map) : Pomeroy Lake

Owner: _____ County: Gogebic

Infested gross area (acres): perimeter of lake

% Gross Area Infested (typically 100%): 25

% **Cover** (canopy cover of the weed, 1 to 100): 25

living room = .004 acres (12' x 16')
baseball diamond = 0.2 acres (90' x 90')
football field = 1.1 acres (300' x 160')

Count: _____ (Circle one: plants or stems)

Dominant life form (circle one): Forbs, Graminoids, Nonvascular plants, Shrubs, Trees

Phenology (circle one): Pre-flowering , Flowering , Fruiting , Senescent

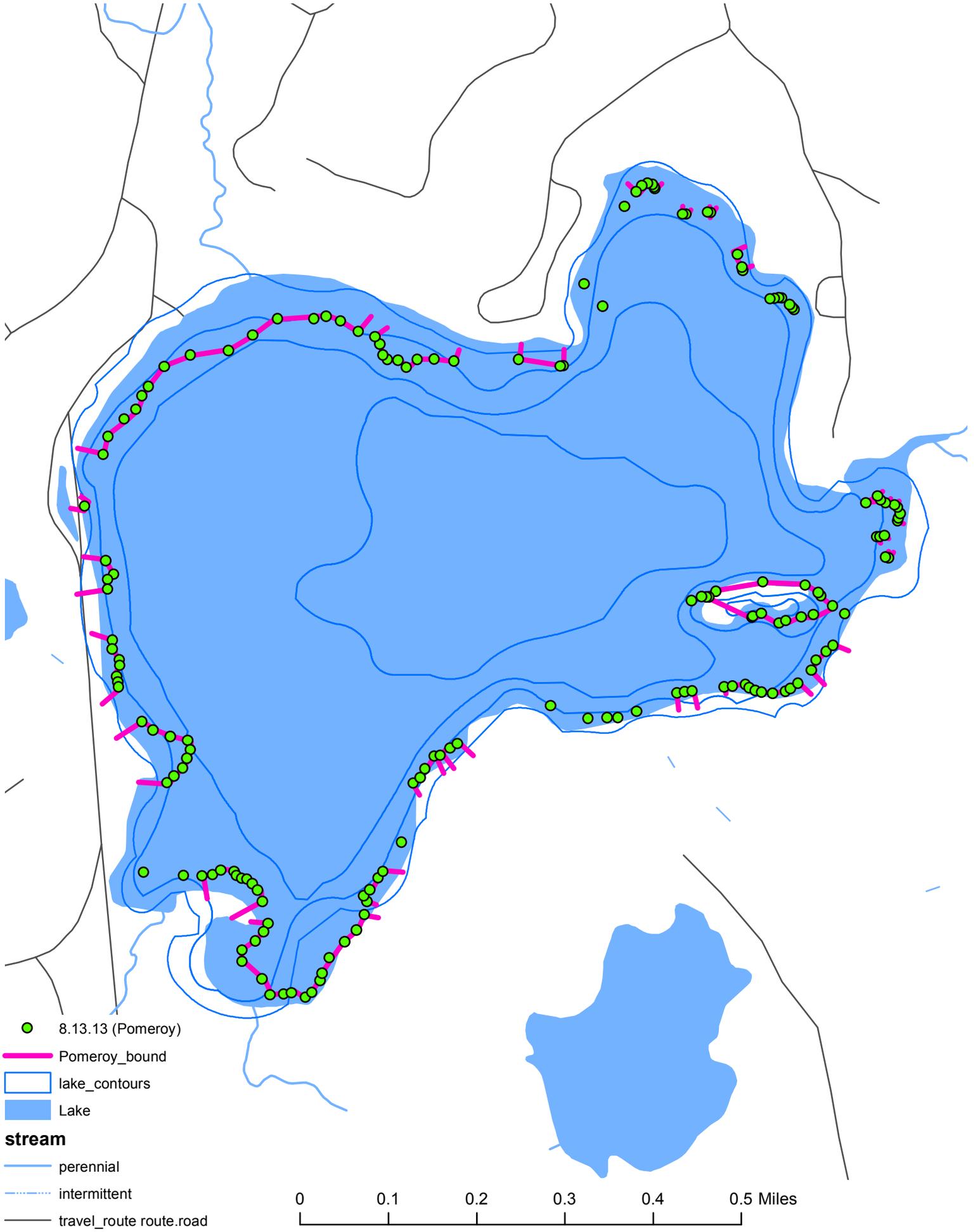
Distribution (circle one): Clumpy Scattered patchy , Scattered even , Linear

Observer: Flambeau Engineering **Date observed:** 8.12.13

Address: PO Box 273 Park Falls, WI Phone: 715.965.3489

Comments: Scattered, sparse patches around perimeter of lake in 3 to 6 ft of water.

AIS Survey Contract 2013: Pomeroy Lake



AIS Lake Survey Record

Surveyor(s) Tiffany Kleczewski, Flambeau Eng Date 8.12.13 Time on survey 3:30-4:15

Lake Redboat Township 46 N Range 44 W Section 35

Weather sunny, light breeze

Boat launch description/condition gravel road with paved ramp

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (*circle one*) Lower Higher Average Don't know

Survey area description (also sketch on topo map) Forested with bog. 100% USFS forest

Water color dark brown Turbidity low due to staining

AIS observed

circle NONE *or use lines below*

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake low (medium, high, type) Fishing or paddling

Shoreline development none, forest and bog

Connection to other waterbodies none

Potential for AIS establishment low (medium, high, why, likely invaders) low use - EWM in area lake

Do you think an annual AIS check is needed or could the interval be less frequent? less frequent

Explain low use, high stain, sparse vegetation

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 8.12.13 Time on survey 3:30-4:15

Lake Redboat Township 46 N Range 44 W Section 35 or County Gogebic

General description of lake (setting, nutrient level, obvious concerns):

forest and bog surrounding lake, no development, gravel road access. Low nutrients, very stained, sparse vegetation.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (20 %) Emergents (0 %) Submergents (2 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|--|---|--|
| <input type="checkbox"/> yellow water lily (spatterdock) | <input type="checkbox"/> 3-way sedge | <input type="checkbox"/> chara or nitella |
| <input type="checkbox"/> white water lily | <input type="checkbox"/> sedge (other than 3-way) | <input checked="" type="checkbox"/> D watermilfoil : Eurasian, northern variable-leaf, other FARWELL |
| <input checked="" type="checkbox"/> D water shield | <input type="checkbox"/> rush | <input type="checkbox"/> coontail |
| <input type="checkbox"/> bur-reed | <input type="checkbox"/> wild rice | <input type="checkbox"/> water buttercup |
| <input checked="" type="checkbox"/> C pondweed: <u>ribbonleaf</u> largeleaf, floatingleaf, variableleaf, other | <input type="checkbox"/> grass (other than wild rice) | <input checked="" type="checkbox"/> D bladderwort |
| <input type="checkbox"/> duckweed | <input type="checkbox"/> arrowhead | <input type="checkbox"/> elodea (waterweed) |
| <input type="checkbox"/> water knotweed | <input type="checkbox"/> spikerush | <input type="checkbox"/> pondweed: CLP, robbins, small, claspingleaf, flatstem, other |
| <input type="checkbox"/> water starwort | <input type="checkbox"/> water horsetail | <input type="checkbox"/> naiad |
| <input type="checkbox"/> _____ | <input type="checkbox"/> iris | <input type="checkbox"/> wild celery |
| <input type="checkbox"/> _____ | <input type="checkbox"/> cattail | <input type="checkbox"/> pipewort |
| <input type="checkbox"/> _____ | <input type="checkbox"/> wild calla | <input type="checkbox"/> quillwort (Isoetes) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> pickerel weed | <input type="checkbox"/> shoregrass (Littorella) |
| | | <input type="checkbox"/> water lobelia |
| | | <input type="checkbox"/> water bulrush |
| | | <input type="checkbox"/> water marigold |
| | | <input type="checkbox"/> golden hedgehyssop |
| | | <input type="checkbox"/> _____ |
| | | <input type="checkbox"/> _____ |
| | | <input type="checkbox"/> _____ |

Specimens collected? Yes No (give to Botany staff)

FARWELL MILFOIL?

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae

Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (circle one) Lower Higher Average Don't know

Aquatic flora distribution (circle one): Evenly distributed Widely scattered lumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____

Threats/concerns: VERY STAINED, SPARSE VEGETATION, NO MAPPED AIS IN AREA.

AIS Lake Survey Record

Surveyor(s) Tiffiney Kleczewski, Flambeau Eng Date 7.23.13 Time on survey 8:25-9:15

Lake SCOTT Township 42 N Range 34 W Section 22

Weather sunny, calm

Boat launch description/condition Very hard to find; marked as private road, no trespassing, carry in only

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (*circle one*) Lower Higher Average Don't know

Survey area description (also sketch on topo map) Upland forest and fields

Water color clear Turbidity low

AIS observed

circle NONE *or use lines below*

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake (low, medium, high, type) fishing, paddling

Shoreline development none

Connection to other waterbodies none

Potential for AIS establishment (low, medium, high, why, likely invaders) all AIS in area lakes, access issues causes low use, carry in access limits boat traffic. EWM, CLP, rusty, zebra, mystery in area lakes.

Do you think an annual AIS check is needed or could the interval be less frequent? less frequent

Explain low use, limited access

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 7.23.13 Time on survey 8:25-9:15

Lake SCOTT Township 42 N Range 34 W Section 22 or County Iron

General description of lake (setting, nutrient level, obvious concerns):

Access road marked as private, no trespassing, low use. Low nutrient, sparse vegetation, forested upland, wetland and fields.0

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (0 %) Emergents (2 %) Submergents (1 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|--|---|---|
| <input type="checkbox"/> yellow water lily (spatterdock) | <input type="checkbox"/> 3-way sedge | <input type="checkbox"/> chara or nitella |
| <input type="checkbox"/> white water lily | <input type="checkbox"/> sedge (other than 3-way) | <input type="checkbox"/> watermilfoil : Eurasian, northern |
| <input type="checkbox"/> water shield | <input checked="" type="checkbox"/> C rush | <input type="checkbox"/> variable-leaf, other |
| <input checked="" type="checkbox"/> D bur-reed | <input type="checkbox"/> wild rice | <input type="checkbox"/> coontail |
| <input type="checkbox"/> pondweed: ribbonleaf, largeleaf, | <input type="checkbox"/> grass (other than wild rice) | <input type="checkbox"/> water buttercup |
| <input type="checkbox"/> floatingleaf, variableleaf, other | <input checked="" type="checkbox"/> C arrowhead | <input type="checkbox"/> bladderwort |
| <input type="checkbox"/> duckweed | <input checked="" type="checkbox"/> C spikerush | <input type="checkbox"/> elodea (waterweed) |
| <input type="checkbox"/> water knotweed | <input type="checkbox"/> water horsetail | <input type="checkbox"/> pondweed: CLP, robbins, small, |
| <input type="checkbox"/> water starwort | <input type="checkbox"/> iris | <input type="checkbox"/> claspingleaf, flatstem, other |
| <input type="checkbox"/> _____ | <input checked="" type="checkbox"/> C cattail | <input type="checkbox"/> naiad |
| <input type="checkbox"/> _____ | <input type="checkbox"/> wild calla | <input type="checkbox"/> wild celery |
| <input type="checkbox"/> _____ | <input type="checkbox"/> pickerel weed | <input checked="" type="checkbox"/> C pipewort |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input checked="" type="checkbox"/> T quillwort (Isoetes) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input checked="" type="checkbox"/> T shoregrass (Littorella) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water lobelia |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water bulrush |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water marigold |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> golden hedgehyssop |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |

Specimens collected? Yes No (give to Botany staff)

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae
 Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____
 Present lake level relative to average (circle one) Lower Higher Average Don't know
 Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____
 Threats/concerns: Area lakes have AIS but limited access to lake decreases establishment.

AIS Lake Survey Record

Surveyor(s) Tiffiney Kleczewski, Flambeau Eng Date 8.15.13 Time on survey 3:20-5:30

Lake Smokey Township 42 N Range 12E W Section 35

Weather sunny, mild, light breeze

Boat launch description/condition Paved road and parking, concrete ramp

Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (circle one) Lower Higher Average Don't know very low!

Survey area description (also sketch on topo map) southern tip of lake in WI. No USFS forest on lake.

Water color light green Turbidity secchi >14'

AIS observed

circle **NONE** or use lines below

Species Myriophyllum spicatum Location (in lake) bay west of boat launch

Abundance scattered, isolated GPS See attached sheet

Sample taken (circle one) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (circle one) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (circle one) Yes No

Vulnerability assessment

Apparent usage of lake (low, medium, high, type) High - recreation, fishing, boating, skiing, jet skiing

Shoreline development Very high

Connection to other waterbodies none

Potential for AIS establishment (low, medium, high, why, likely invaders) high due to use and development.
Potential for all AIS.

Do you think an annual AIS check is needed or could the interval be less frequent? Yes

Explain Very high use and development. Area lakes contain AIS.

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 8.15.13 Time on survey 3:20-5:30

Lake Smokey Township 42 N Range 12E W Section 35 or County Iron

General description of lake (setting, nutrient level, obvious concerns):

slight algae bloom, clear water, highly developed shoreline, high use for recreation and fishing. Very low water level; most of boat ramp out of water with exposed sand lakebed. Near large Wisconsin lakes.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (1 %) Emergents (1 %) Submergents (10 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|---|---|---|
| <input type="checkbox"/> yellow water lily (spatterdock) | <input type="checkbox"/> 3-way sedge | <input type="checkbox"/> chara or nitella |
| <input type="checkbox"/> white water lily | <input type="checkbox"/> sedge (other than 3-way) | <input checked="" type="checkbox"/> watermilfoil : <u>Eurasian</u> northern |
| <input type="checkbox"/> water shield | <input type="checkbox"/> rush | variable-leaf, other |
| <input checked="" type="checkbox"/> bur-reed | <input type="checkbox"/> wild rice | <input type="checkbox"/> coontail |
| <input type="checkbox"/> pondweed: ribbonleaf, largeleaf, floatingleaf, variableleaf, other | <input type="checkbox"/> grass (other than wild rice) | <input type="checkbox"/> water buttercup |
| <input type="checkbox"/> duckweed | <input type="checkbox"/> arrowhead | <input type="checkbox"/> bladderwort |
| <input type="checkbox"/> water knotweed | <input checked="" type="checkbox"/> spikerush <u>NEEDLE</u> | <input type="checkbox"/> elodea (waterweed) |
| <input type="checkbox"/> water starwort | <input type="checkbox"/> water horsetail | <input checked="" type="checkbox"/> pondweed: CLP, robbins, <u>small</u> O |
| _____ | <input type="checkbox"/> iris | <input checked="" type="checkbox"/> <u>claspingleaf</u> flatstem, other |
| _____ | <input type="checkbox"/> cattail | <input checked="" type="checkbox"/> naiad |
| _____ | <input type="checkbox"/> wild calla | <input type="checkbox"/> wild celery |
| _____ | <input type="checkbox"/> pickerel weed | <input type="checkbox"/> pipewort |
| _____ | _____ | <input type="checkbox"/> quillwort (Isoetes) |
| _____ | _____ | <input type="checkbox"/> shoregrass (Littorella) |
| _____ | _____ | <input type="checkbox"/> water lobelia |
| _____ | _____ | <input type="checkbox"/> water bulrush |
| _____ | _____ | <input type="checkbox"/> water marigold |
| _____ | _____ | <input type="checkbox"/> golden hedgehyssop |

RING AROUND LAKE 4-8'

Specimens collected? Yes No (give to Botany staff)

EWM

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae SLIGHT ALGAE BLOOM SECCHI 14'+

Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (circle one) Lower Higher Average Don't know

Aquatic flora distribution (circle one) Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____

Threats/concerns: EWM has expanded from previous survey location. Management should be started now while stands are small.

Ottawa National Forest Weed Reporting Form

Weed Species: Myriophyllum spicatum

Occurrence number: _____

Project name: Ottawa AIS Survey

Site name: Smokey Lake

Location (Fill in either the legal description, latitude and longitude, UTM, or attach a map)

Legal Description: Twp 42 Rng 12E Sec 35 ¼ sec _____ ¼¼ sec _____

Latitude _____ Longitude _____

UTM _____

District: _____ Compartment: _____ Stand: _____

Directions to site (or include a detailed map) : south bay Smokey Lake

Owner: _____ County: Iron

Infested gross area (acres): <1ac

% Gross Area Infested (typically 100%): _____

living room = .004 acres (12' x 16')
baseball diamond = 0.2 acres (90' x 90')
football field = 1.1 acres (300' x 160')

% **Cover** (canopy cover of the weed, 1 to 100): _____

Count: _____ (Circle one: plants or stems)

Dominant life form (circle one): Forbs, Graminoids, Nonvascular plants, Shrubs, Trees

Phenology (circle one): Pre-flowering , Flowering , Fruiting , Senescent

Distribution (circle one): Clumpy , Scattered patchy , Scattered even , Linear

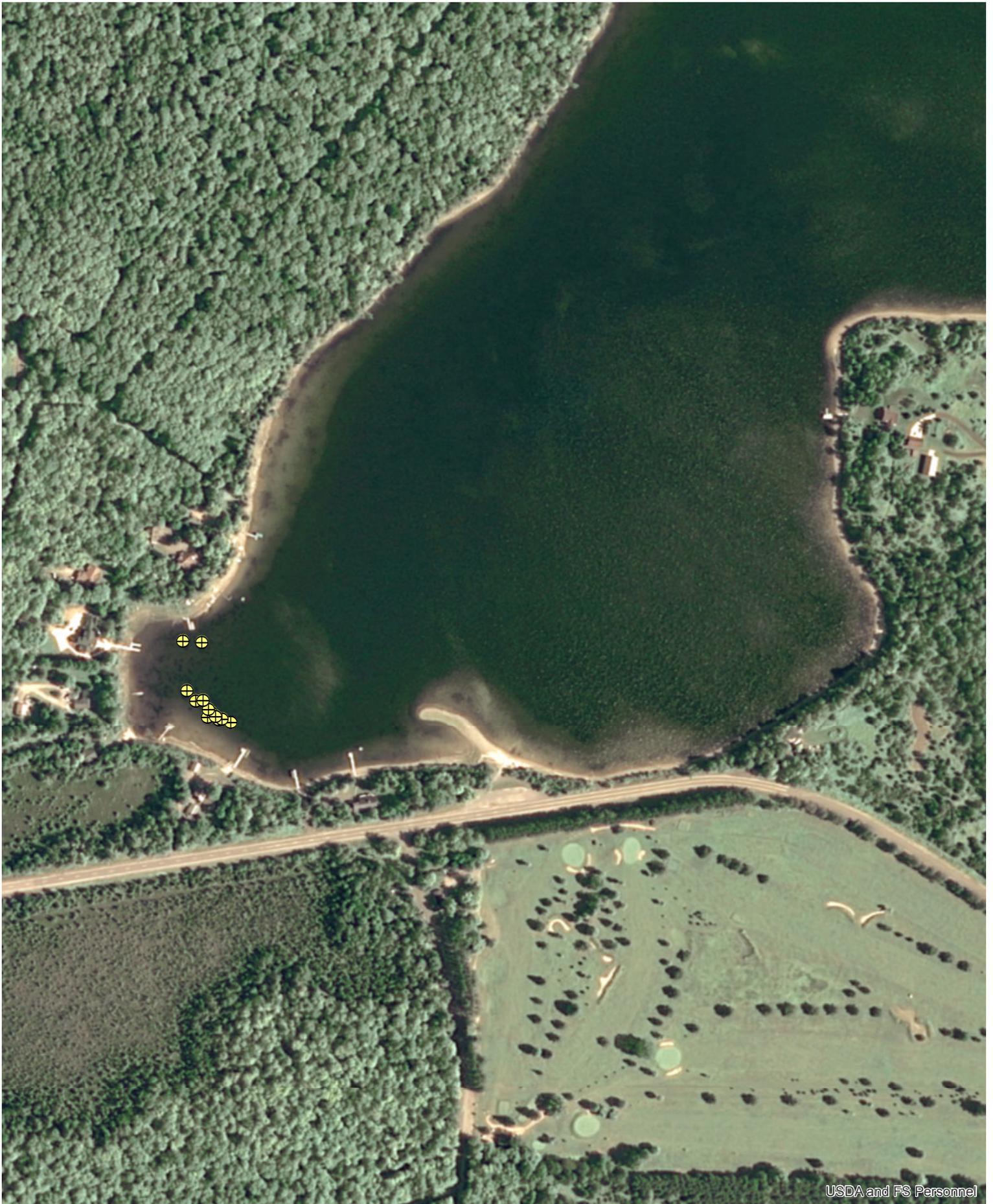
Observer: Flambeau Engineering

Date observed: 8.15.13

Address: PO Box 273 Park Falls, WI

Phone: 715.965.3489

Comments: Scattered patches EWM. Several, small, dense stands with scattered individual plants. Isolated in south bay.



USDA and FS Personnel

⊕ Eurasian watermilfoil (8/15/2013)

0 0.1 0.2 Miles

AIS Lake Survey Record

Surveyor(s) Tiffany Kleczewski, Flambeau Eng Date 8.14.13 Time on survey 5:30-7:10

Lake STANLEY Township 42 N Range 35 W Section 5

Weather partly sunny, light breeze

Boat launch description/condition paved, concrete ramp, pier

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (*circle one*) Lower Higher Average Don't know

Survey area description (also sketch on topo map) near Iron River, developed shoreline.

Water color green Turbidity high - algae bloom

AIS observed

circle NONE *or use lines below*

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake (low, medium, high, type) recreation, fishing

Shoreline development high, most of shoreline developed, large homes

Connection to other waterbodies Stanley Creek

Potential for AIS establishment (low, medium, high, why, likely invaders) Rusty crayfish are present but were not observed. AIS in area lakes, EWM, CLP, zebra, mystery. High use lake with good landing

Do you think an annual AIS check is needed or could the interval be less frequent? Yes

Explain High use, AIS in area, rusty are present.

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 8.14.13 Time on survey 5:30-7:10

Lake STANLEY Township 42 N Range 35 W Section 5 or County IRON

General description of lake (setting, nutrient level, obvious concerns):

high nutrients, algae bloom, sparse vegetation. High use and highly developed

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (1 %) Emergents (1 %) Submergents (1 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|---|---|--|
| <input type="checkbox"/> yellow water lily (spatterdock) | <input type="checkbox"/> 3-way sedge | <input type="checkbox"/> chara or <u>nitella</u> |
| <input type="checkbox"/> white water lily | <input type="checkbox"/> sedge (other than 3-way) | <input checked="" type="checkbox"/> watermilfoil : Eurasian, <u>northern</u> |
| <input type="checkbox"/> water shield | <input checked="" type="checkbox"/> rush | <input type="checkbox"/> variable-leaf, other |
| <input type="checkbox"/> bur-reed | <input type="checkbox"/> wild rice | <input type="checkbox"/> coontail |
| <input checked="" type="checkbox"/> pondweed: ribbonleaf, <u>largeleaf,</u> | <input type="checkbox"/> grass (other than wild rice) | <input type="checkbox"/> water buttercup |
| <input type="checkbox"/> floatingleaf, variableleaf, other | <input type="checkbox"/> arrowhead | <input type="checkbox"/> bladderwort |
| <input type="checkbox"/> duckweed | <input type="checkbox"/> spikerush | <input type="checkbox"/> elodea (waterweed) |
| <input checked="" type="checkbox"/> water knotweed | <input type="checkbox"/> water horsetail | <input type="checkbox"/> pondweed: CLP, robbins, small, |
| <input type="checkbox"/> water starwort | <input type="checkbox"/> iris | <input type="checkbox"/> claspingleaf, flatstem, other |
| <input type="checkbox"/> _____ | <input checked="" type="checkbox"/> cattail | <input type="checkbox"/> naiad |
| <input type="checkbox"/> _____ | <input type="checkbox"/> wild calla | <input type="checkbox"/> wild celery |
| <input type="checkbox"/> _____ | <input type="checkbox"/> pickerel weed | <input type="checkbox"/> pipewort |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> quillwort (Isoetes) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> shoregrass (Littorella) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water lobelia |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water bulrush |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water marigold |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> golden hedgehyssop |

Specimens collected? Yes No give to Botany staff)

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae

Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (circle one) Lower Higher Average Don't know

Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____

Threats/concerns: AIS in area lakes, high use lake with easy access.

AIS Lake Survey Record

Surveyor(s) Tiffiney Kleczewski, Flambeau Eng Date 7.23.13 Time on survey 11:10-3:00

Lake SUNSET Township 43 N Range 34 W Section 8

Weather sunny, light breeze

Boat launch description/condition concrete ramp, paved road, boat wash

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (*circle one*) Lower Higher Average Don't know

Survey area description (also sketch on topo map) Near Iron River, highly developed, beach, park, busy boat launch

Water color clear Turbidity low

AIS observed

circle NONE *or use lines below*

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake (low, medium high type) recreation, fishing

Shoreline development high, most of shore developed with large homes and cabins

Connection to other waterbodies none

Potential for AIS establishment (low, medium high, why, likely invaders) All AIS are present in area lakes, high use heavy boat traffic. EWM, CLP, rusty, zebra, mystery in area lakes.

Do you think an annual AIS check is needed or could the interval be less frequent? Yes

Explain High use, AIS in area

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 7.23.13 Time on survey 11:00-3:00

Lake SUNSET Township 43 N Range 34 W Section 8 or County IRON

General description of lake (setting, nutrient level, obvious concerns):
low nutrient, highly developed, heavy boat traffic, fishing and recreation, boat wash at landing, near Iron River, AIS in area lakes

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (1 %) Emergents (1 %) Submergents (20 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|--|---|--|
| <input type="checkbox"/> yellow water lily (spatterdock) | <input type="checkbox"/> 3-way sedge | <input type="checkbox"/> chara or nitella |
| <input checked="" type="checkbox"/> white water lily | <input type="checkbox"/> sedge (other than 3-way) | <input type="checkbox"/> watermilfoil : Eurasian, northern |
| <input type="checkbox"/> water shield | <input checked="" type="checkbox"/> rush | <input type="checkbox"/> variable-leaf, other |
| <input type="checkbox"/> bur-reed | <input type="checkbox"/> wild rice | <input type="checkbox"/> coontail |
| <input checked="" type="checkbox"/> pondweed: ribbonleaf, largeleaf | <input type="checkbox"/> grass (other than wild rice) | <input type="checkbox"/> water buttercup |
| <input type="checkbox"/> floatingleaf, variableleaf , other | <input type="checkbox"/> arrowhead | <input type="checkbox"/> bladderwort |
| <input type="checkbox"/> duckweed | <input type="checkbox"/> spikerush | <input type="checkbox"/> elodea (waterweed) |
| <input type="checkbox"/> water knotweed | <input type="checkbox"/> water horsetail | <input checked="" type="checkbox"/> pondweed: CLP, robbins , small, |
| <input type="checkbox"/> water starwort | <input type="checkbox"/> iris | <input checked="" type="checkbox"/> claspingleaf, flatstem , other |
| <input type="checkbox"/> _____ | <input type="checkbox"/> cattail | <input type="checkbox"/> naiad |
| <input type="checkbox"/> _____ | <input type="checkbox"/> wild calla | <input type="checkbox"/> wild celery |
| <input type="checkbox"/> _____ | <input type="checkbox"/> pickerel weed | <input type="checkbox"/> pipewort |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> quillwort (Isoetes) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> shoregrass (Littorella) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water lobelia |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water bulrush |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water marigold |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> golden hedgehyssop |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |

Specimens collected? Yes No (give to Botany staff)

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae
 Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____
 Present lake level relative to average (circle one) Lower Higher Average Don't know
 Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only
 INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____
 Threats/concerns: AIS in area lakes, very high use

AIS Lake Survey Record

Surveyor(s) Tiffany Kleczewski, Flambeau Eng Date 8.15.13 Time on survey 11:30-1:45

Lake WINSLOW Township 46 N Range 36 W Section 3

Weather sunny, mild, light breeze

Boat launch description/condition gravel, concrete ramp

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris **Unknown** Other _____

Present lake level relative to average (*circle one*) Lower Higher **Average** Don't know

Survey area description (also sketch on topo map) forested, moderate development - mainly in south bay. 40% USFS forest

Water color brown Turbidity low

AIS observed

circle **NONE** *or use lines below*

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake (low, **medium**, high, type) recreation, fishing - several boats fishing

Shoreline development moderate - limited to south bay

Connection to other waterbodies Winslow Creek

Potential for AIS establishment (low, **medium**, high, why, likely invaders) medium use by fisherman. Rusty in area lakes.

Do you think an annual AIS check is needed or could the interval be less frequent? Less frequent

Explain moderate use, stained water, thick northern watermilfoil, EWM could estalish.

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 8.15.13 Time on survey 11:30-1:45

Lake WINSLOW Township 46 N Range 36 W Section 3 or County IRON

General description of lake (*setting, nutrient level, obvious concerns*):

Moderate nutrients, thick northern milfoil growth

Vegetation data- canopy cover (*extent of entire lake occupied by layer*) and species:

Floating leaved plants (10 %) Emergents (____%) Submergents (20 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|---|-----------------------------------|---|
| <u>C</u> yellow water lily (spatterdock) | ____ 3-way sedge | ____ chara or nitella |
| <u>C</u> white water lily | ____ sedge (other than 3-way) | ____ watermilfoil : Eurasian, northern variable-leaf, other |
| <u>O</u> water shield | ____ rush | <u>O</u> coontail |
| <u>O</u> bur-reed | ____ wild rice | ____ water buttercup |
| <u>C</u> pondweed <u>ribbonleaf, largeleaf,</u> | ____ grass (other than wild rice) | ____ bladderwort |
| <u>floatingleaf, variableleaf, other</u> | ____ arrowhead | ____ elodea (waterweed) |
| ____ duckweed | ____ spikerush | <u>C</u> pondweed: CLP, <u>robbins</u> small, |
| <u>T</u> water knotweed | ____ water horsetail | <u>claspingleaf, flatstem, other</u> |
| ____ water starwort | ____ iris | ____ naiad |
| ____ _____ | ____ cattail | <u>C</u> wild celery |
| ____ _____ | ____ wild calla | ____ pipewort |
| ____ _____ | ____ pickerel weed | ____ quillwort (Isoetes) |
| ____ _____ | ____ _____ | ____ shoregrass (Littorella) |
| ____ _____ | ____ _____ | ____ water lobelia |
| ____ _____ | ____ _____ | ____ water bulrush |
| ____ _____ | ____ _____ | ____ water marigold |
| ____ _____ | ____ _____ | ____ golden hedgehyssop |

Specimens collected? Yes No (give to Botany staff)

C WHITESTEM PONDWEED

Water clarity (*circle one*) Clear Stained Turbid with sediment Turbid with algae
 Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris Unknown Other _____
 Present lake level relative to average (*circle one*) Lower Higher Average Don't know
 Aquatic flora distribution (*circle one*): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____

Threats/concerns: _____

AIS Lake Survey Record

Surveyor(s) Tiffany Kleczewski, Flambeau Eng Date 7.23.13 Time on survey 5:00-6:00

Lake WILDWOOD Township 43 N Range 34 W Section 28

Weather partly sunny, calm

Boat launch description/condition easy access from highway, shallow with rocks, has to use canoe.

Dominant substrate (*circle one*) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (*circle one*) Lower Higher Average Don't know

Survey area description (also sketch on topo map) near Iron River with easy access from Hwy 2. Forested with moderate development on shoreline.

Water color dark brown stained Turbidity low

AIS observed

circle NONE *or use lines below*

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Species _____ Location (in lake) _____

Abundance _____ GPS _____

Sample taken (*circle one*) Yes No

Vulnerability assessment

Apparent usage of lake (low, medium, high, type) fishing, canoeing, homeowners have boats at docks

Shoreline development moderate development

Connection to other waterbodies none

Potential for AIS establishment (low, medium, high, why, likely invaders) AIS in area lakes, close to Iron River, difficult to launch boats, many rocks in lake make navigation difficult with motor. EWM, CLP, zebra, rusty, mystery in area lakes.

Do you think an annual AIS check is needed or could the interval be less frequent? less frequent

Explain shallow lauch with rocks, stained water, sparse vegetation, AIS in nearby lakes

LAKE FLORA QUICK CHECK CARD

Observer(s) Flambeau Engineering T. Kleczewski Date 7.23.13 Time on survey 5:00-6:00

Lake WILDWOOD Township 43 N Range 34 W Section 28 or County IRON

General description of lake (setting, nutrient level, obvious concerns):

Near Iron River with easy access from Hwy 2. Landing is shallow with rocks. Low nutrients, high stain. AIS in area lakes.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:

Floating leaved plants (2 %) Emergents (2 %) Submergents (5 %)

Check which species you see. If you can, assign D for dominant, C for common, O for occasional, T for trace. Circle one if multiple species listed on line.

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> yellow water lily (spatterdock) | <input type="checkbox"/> 3-way sedge | <input type="checkbox"/> chara or nitella |
| <input checked="" type="checkbox"/> white water lily | <input type="checkbox"/> sedge (other than 3-way) | <input type="checkbox"/> watermilfoil : Eurasian, northern |
| <input type="checkbox"/> water shield | <input checked="" type="checkbox"/> rush | <input type="checkbox"/> variable-leaf, other |
| <input checked="" type="checkbox"/> bur-reed | <input type="checkbox"/> wild rice | <input type="checkbox"/> coontail |
| <input type="checkbox"/> pondweed: <input checked="" type="checkbox"/> ribbonleaf largeleaf, | <input type="checkbox"/> grass (other than wild rice) | <input type="checkbox"/> water buttercup |
| <input type="checkbox"/> floatingleaf, variableleaf, other | <input type="checkbox"/> arrowhead | <input checked="" type="checkbox"/> bladderwort |
| <input type="checkbox"/> duckweed | <input type="checkbox"/> spikerush | <input type="checkbox"/> elodea (waterweed) |
| <input type="checkbox"/> water knotweed | <input type="checkbox"/> water horsetail | <input checked="" type="checkbox"/> pondweed: CLP, robbins, small, |
| <input type="checkbox"/> water starwort | <input type="checkbox"/> iris | <input type="checkbox"/> claspingleaf, flatstem, other |
| <input type="checkbox"/> _____ | <input type="checkbox"/> cattail | <input type="checkbox"/> naiad |
| <input type="checkbox"/> _____ | <input type="checkbox"/> wild calla | <input type="checkbox"/> wild celery |
| <input type="checkbox"/> _____ | <input type="checkbox"/> pickerel weed | <input type="checkbox"/> pipewort |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input checked="" type="checkbox"/> quillwort (Isoetes) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input checked="" type="checkbox"/> shoregrass (Littorella) |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water lobelia |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water bulrush |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> water marigold |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | <input type="checkbox"/> golden hedgehyssop |

Specimens collected? Yes No (give to Botany staff)

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae

Dominant substrate (circle one) Mud Sand Rock Gravel Muck Debris Unknown Other _____

Present lake level relative to average (circle one) Lower Higher Average Don't know

Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other _____

Threats/concerns: AIS in area lakes