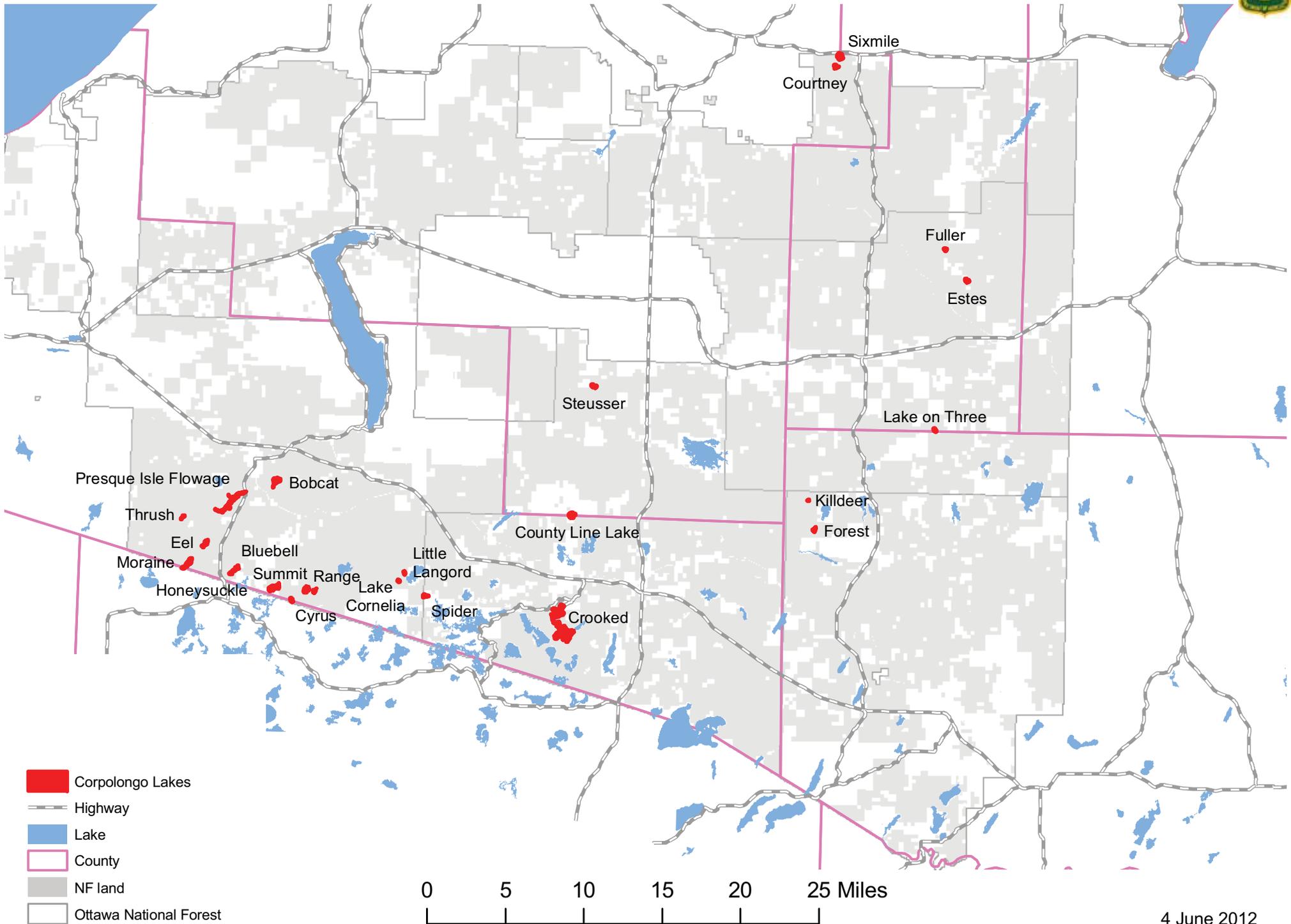


Lake	Area (Acres)	Perimeter (Miles)	County	Township & Range	Section	Date surveyed	Observations
Bluebell Lake	25.3	1.21	Gogebic	T45NR43W	30	8/12/2012	Milfoil could establish if introduced, but the lake does not appear to be heavily used other than by residents.
Bobcat Lake	89.1	2.19	Gogebic	T46NR43W	27	8/5/2012	Heavily used and native milfoil is present so if EWM were introduced it could spread rapidly.
County Line Lake	69.9	1.89	Ontonagon	T46NR40W	35	8/30/2012	Heavy use & close proximity to EWM infested water make introduction somewhat likely, though it may not establish.
Courtney Lake	33.4	1.1	Ontonagon	T50NR37W	4	7/30/2012	
Crooked Lake	622.5	15.33	Gogebic	T45NR40W	34	8/27/12 & 9/10/12	Annual survey is needed to monitor existing AIS and check for new populations.
Cyrus Lake	23.1	0.99	Gogebic	T45NR43W	35	9/9/2012	Difficult access, not heavily used, less frequent surveys. ATV trail access on WI side.
Eel Lake	51.8	1.69	Gogebic	T45NR44W	14	8/5/2012	Heavily used lake, trash at launch suggests those that use it are not responsible.
Estes Lake	27.7	1.25	Houghton	T48NR36W	13	7/15/2012	Several bait containers, beer cans, line packaging and other trash in/near lake. Irresponsible fisherman could introduce invasives.
Forest Lake	22.9	1	Iron	T45NR37W	5	9/3/2012	Very little access to lake; road access no longer usable.
Fuller Lake	18	0.93	Houghton	T48NR36W	3	7/15/2012	
Honeysuckle Lake	27.7	1.47	Gogebic	T45NR43W	30	8/13/2012	Mainly used by resident. Connects to Bluebell Lake.
Killdeer Lake	8.4	0.43	Iron	T46NR37W	29	9/3/2012	Low, low nutrient; bladderwort dominant species. Medium usage from fishing, lake possibly trout stocked. Slight boat launch with parking area.
Lake Cornelia	14.3	0.69	Gogebic	T45NR42W	25	9/10/2012	Difficult access, low use.
Lake on Three	24.6	0.86	Houghton	T47NR36W	34	9/3/2012	Not a lot of vegetation; less frequent surveys.
Little Langford Lake	15.8	0.65	Gogebic	T45NR42W	25	9/10/2012	Not heavily used. Less frequent surveys recommended.
Little Oxbow Lake	97.1	3.42	Gogebic	T45NR43W	34	9/9/2012	Fair amount of use, EWM or CLP could spread if introduced.
Moraine Lake	90.8	2.6	Gogebic	T45NR44W	23	8/13/2012	If introduced CLP or EWM could spread rapidly. Medium use.
Presque Isle Flowage	202	7.03	Gogebic	T46NR43W	32	8/12/2012	Lake is heavily used. If AIS were introduced they could establish rapidly.
Range Lake	18.8	1.09	Gogebic	T45NR42W	31	9/9/2012	Not heavily used; less frequent surveys.
Six Mile Lake	81.7	1.44	Ontonagon	T50NR37W	4	7/30/2012	High use but public access is limited (no launch) so most of the use is probably frp, residents who keep their boats in Six Mile.
Spider Lake	33.3	1.21	Gogebic	T45NR41W	32	9/10/2012	High use, medium potential for AIS; CLP or EWM could establish if introduced.
Stuesser Lake	35.5	1.11	Ontonagon	T47NR40W	24	8/13/2012	Low potential; very little aquatic life present; AIS unlikely to thrive if introduced.
Summit Lake	48.2	3.09	Gogebic	T45NR43W	36	9/9/2012	Not high use, AIS not likely to flourish here.
Thrush Lake	18.7	0.89	Gogebic	T45NR44W	3	8/12/2012	Not heavily used; less frequent surveys.
Total:	1700.6	53.56					

2012 AIS Lake Survey Contract



AIS Lake Survey Record

Surveyor(s) Andrea + Scott Corpolungo Date 8/12/12 Time on survey 6:30 - 7:30 pm

Lake Bluebell Township N Range W Section

Weather Still, overcast

Boat launch description/condition Dirt launch accessed off gravel 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) See GPS data

Water color Stained with tannins Turbidity clear

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) Residence on lake, saw a fisherman while surveying.

Shoreline development One home with a moored boat to waterline

Connection to other waterbodies Honeysockle

Potential for AIS establishment (low, medium, high, why, likely invaders) Milfoil could establish if introduced, but the lake does not appear to be heavily used other than by residents.

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

Explain

LAKE FLORA QUICK CHECK CARD

Observer(s) Andrea + Scott Corpolongo Date 8/12/12 Time on survey 6:30 pm - 7:30 pm
Smith

Lake Bluebell Township _____ N Range _____ W Section _____ or County _____

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

Somewhat boggy at north end, lake mainly edged by spruce and birch, more pickerel weed than other lakes we've surveyed. One adult loon seen, also a blue heron and an active beaver lodge.

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

Floating leaved plants (3 %) 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.

- | | | |
|--|---------------------------------------|---|
| <u>T</u> yellow water lily (spatterdock) | <u>D</u> 3-way sedge | _____ chara or nitella |
| <u>C</u> white water lily | <u>C</u> sedge (other than 3-way) | <u>O</u> watermilfoil: Eurasian, northern variable-leaf, other <u>Fernell's</u> |
| <u>C</u> water shield | _____ rush | _____ coontail |
| <u>T</u> bur-reed | _____ wild rice | _____ water buttercup |
| <u>O</u> pondweed: ribbonleaf, largeleaf, floatingleaf, variableleaf, <u>other</u> | <u>C</u> grass (other than wild rice) | <u>O</u> bladderwort |
| _____ duckweed | <u>C</u> arrowhead | _____ elodea (waterweed) |
| _____ water knotweed | <u>O</u> spikerush | _____ pondweed: CLP, robbins, small, claspingleaf, flatstem, other |
| _____ water starwort | _____ water horsetail | _____ naiad |
| _____ | _____ iris | _____ wild celery |
| _____ | _____ cattail | _____ pipewort |
| _____ | _____ wild calla | _____ quillwort (Isoetes) |
| _____ | <u>C</u> pickerel weed | _____ shoregrass (Littorella) |
| _____ | <u>O</u> <u>cranberry</u> | _____ 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 None Seen
 Threats/concerns: No concerns

AIS Lake Survey Record

Surveyor(s) Andrea + Scott Corpolongo Smith Date 8/5/12 Time on survey 4 pm - 5:30 pm

Lake Bobcat Township _____ N Range _____ W Section _____

Weather Calm and Clear

Boat launch description/condition Rocky launch, easy access. Small spotted Knapweed infestation in turn around.

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) Followed shoreline and crossed lake as stipulated in the contract. The GPS stopped working during the survey.

Water color Stained with tannins Turbidity Clear

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) Swimming, boating and fishing.

Shoreline development Campground and boat launch

Connection to other waterbodies Bobcat Creek

Potential for AIS establishment (low, medium, high, why, likely invaders) Heavily used and native milfoil is present so if EWM were introduced it could spread rapidly.

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

Explain _____

LAKE FLORA QUICK CHECK CARD

Observer(s) Andrea + Scott Corpolongo Date 8/5/12 Time on survey 4 pm - 5:30 pm
Smith

Lake Bobcat Township _____ N Range _____ W Section _____ or County _____

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

Cedar, Hemlock and Maple all present. Bald eagle seen.

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

Floating leaved plants (3 %) Emergents (1 %) 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="radio"/> 3-way sedge | <input type="radio"/> chara or nitella |
| <input checked="" type="radio"/> white water lily | <input checked="" type="radio"/> sedge (other than 3-way) | <input checked="" type="radio"/> watermilfoil : Eurasian <u>northern</u> |
| <input checked="" type="radio"/> water shield | <input checked="" type="radio"/> rush | variable-leaf, other <u>farwell's</u> |
| <input checked="" type="radio"/> bur-reed | ___ wild rice | ___ coontail |
| <input checked="" type="radio"/> pondweed: ribbonleaf, <u>largeleaf</u> | ___ grass (other than wild rice) | ___ water buttercup |
| floatingleaf, variableleaf, <u>other</u> | ___ arrowhead | <input checked="" type="radio"/> bladderwort |
| ___ duckweed | <input checked="" type="radio"/> spikerush | ___ elodea (waterweed) |
| ___ water knotweed | <input checked="" type="radio"/> water horsetail | <input checked="" type="radio"/> pondweed: CLP, robbins, <u>small</u> |
| ___ water starwort | <input type="radio"/> Iris | claspingleaf, flatstem, <u>other</u> |
| ___ | ___ cattail | <input checked="" type="radio"/> naiad |
| ___ | ___ wild calla | <input checked="" type="radio"/> 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 None

Threats/concerns: If Ewm were introduced it could spread rapidly.

AIS Lake Survey Record

Surveyor(s) Andrea + Scott Corpolongo Date 8/30/12 Time on survey 3:00 pm - 4:00 pm
Smith

Lake County Line Township _____ N Range _____ W Section _____

Weather Overcast, steady wind

Boat launch description/condition Paved ramp with dock and restroom, good condition

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) See GPS data

Water color Stained with tannins Turbidity Clear

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) Many residents with docks + heavily used public access.

Shoreline development Several homes and cabins

Connection to other waterbodies unknown

Potential for AIS establishment (low, (medium) high, why, likely invaders) Heavy use + close proximity to EVM infested water makes introduction somewhat likely, though it may not establish.

Do you think an annual AIS check is needed or could the interval be less frequent? I think every other year would be adequate.

Explain _____

LAKE FLORA QUICK CHECK CARD

Observer(s) Andrea + Scott Copeland Smith Date 8/30/12 Time on survey 3-4 pm
 Lake County Line Township _____ N Range _____ W Section _____ or County _____

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

Many homes or cabins, several with mowed lawns to shore. The remaining shore line had mixed woods. There is an active Beaver lodge and nesting loons.

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

Floating leaved plants (1 %) Emergents (41 %) Submergents (41 %)

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>I</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 variable-leaf, other |
| <u>D</u> water shield | <u>O</u> rush | _____ coontail |
| <u>C</u> bur-reed | _____ wild rice | _____ water buttercup |
| _____ pondweed: ribbonleaf, largeleaf, floatingleaf, variableleaf, other | _____ grass (other than wild rice) | _____ bladderwort |
| _____ duckweed | _____ arrowhead | _____ elodea (waterweed) |
| _____ water knotweed | _____ spikerush | _____ pondweed: CLP, robbins, small, claspingleaf, flatstem, other |
| _____ water starwort | _____ water horsetail | _____ naiad |
| _____ | _____ iris | _____ wild celery |
| _____ | _____ cattail | <u>C</u> pipewort |
| _____ | _____ wild calla | _____ quillwort (Isoetes) |
| _____ | _____ pickerel weed | <u>C</u> shoregrass (Littorella) |
| _____ | <u>C</u> <u>base set</u> | _____ 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 None
 Threats/concerns: No concerns

AIS Lake Survey Record

Surveyor(s) Andrea & Scott Corpolongo Date 7/30/12 Time on survey 5-5:45 pm

Lake Courtney Township _____ N Range _____ W Section _____

Weather Clear with slight wind

Boat launch description/condition Rocky, muck + sand at base because the water level is very low.

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) See GPS data

Water color Colorless Turbidity clear

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) Swimming, fishing, recreational boating.

Shoreline development Campground, boat launch, swimming area

Connection to other waterbodies None known

Potential for AIS establishment (low, (medium) high, why, likely invaders) This lake is heavily used so introduction of AIS is likely, but it probably wouldn't spread.

Do you think an annual AIS check is needed or could the interval be less frequent? Every other year would be sufficient.

Explain _____

LAKE FLORA QUICK CHECK CARD

Observer(s) Andrea + Scott Corpolungo Date 7/30/12 Time on survey 5-5:45 pm
Lake Courtney Township ___ N Range ___ W Section ___ or County ___

General description of lake (setting, nutrient level, obvious concerns):
Very little aquatic plant life. Bass, bluegill, shorebirds and painted turtles common. Water level is very low.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:
Floating leaved plants (41 %) Emergents (41 %) 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 type="checkbox"/> white water lily | <input checked="" 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 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 type="checkbox"/> claspingleaf, flatstem, other |
| _____ | <input type="checkbox"/> cattail | <input type="checkbox"/> naiad |
| _____ | <input type="checkbox"/> wild calla | <input type="checkbox"/> wild celery |
| _____ | <input type="checkbox"/> pickerel weed | <input checked="" type="checkbox"/> pipewort |
| _____ | _____ | <input checked="" 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 a few mucky areas
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 None
Threats/concerns: No concerns

AIS Lake Survey Record

Surveyor(s) Andrea + Scott Corpolomo Smith Date 8/27+9/10 Time on survey 4-7 pm + 2:15-7:30 pm

Lake Crooked Township _____ N Range _____ W Section _____

Weather Clear and light wind on both days

Boat launch description/condition Blocked motor boat launch with a large parking area

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) See GPS data

Water color _____ Turbidity _____

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

Shoreline development A few resorts + cabins in the section of the lake closest to the road.

Connection to other waterbodies Unknown

Potential for AIS establishment (low, medium, high, why, likely invaders) EWM already present and treated

Do you think an annual AIS check is needed or could the interval be less frequent? Annual survey is needed to monitor existing AIS and check for new populations.

Explain _____

Lake surveyed over two days

LAKE FLORA QUICK CHECK CARD

Observer(s) Andrea + Scott Corpoburgo Date 8/27/12 Time on survey 4-7 pm + 2:15-7:30 pm

Lake Crooked Township _____ N Range _____ W Section _____ or County _____

General description of lake (setting, nutrient level, obvious concerns):
Lake is five distinct "lobes" + each is different. The first + second lobes are dominated by Northern Water Milfoil and pondweed. The third and fourth dominated by wild rice, water merigold and pondweed. The fifth is turbid with sediment and has very little vegetation.

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 checked="" type="radio"/> yellow water lily (spatterdock) | <input type="radio"/> 3-way sedge | <input type="radio"/> chara or nitella |
| <input checked="" type="radio"/> white water lily | <input checked="" type="radio"/> sedge (other than 3-way) | <input checked="" type="radio"/> watermilfoil: Eurasian, <u>northern</u> |
| <input checked="" type="radio"/> water shield | <input checked="" type="radio"/> rush | <input type="radio"/> variable-leaf, other |
| <input type="radio"/> bur-reed | <input checked="" type="radio"/> wild rice | <input type="radio"/> coontail |
| <input checked="" type="radio"/> pondweed: ribbonleaf, <u>largeleaf</u> | <input checked="" type="radio"/> grass (other than wild rice) | <input type="radio"/> water buttercup |
| <input checked="" type="radio"/> floatingleaf, variableleaf, other | <input checked="" type="radio"/> arrowhead | <input type="radio"/> bladderwort |
| <input checked="" type="radio"/> duckweed | <input checked="" type="radio"/> spikerush | <input type="radio"/> elodea (waterweed) |
| <input checked="" type="radio"/> water knotweed | <input type="radio"/> water horsetail | <input checked="" type="radio"/> pondweed: CLP, robbins, small, <u>claspingleaf</u> |
| <input type="radio"/> water starwort | <input checked="" type="radio"/> iris | <input type="radio"/> flatstem, other <u>Sago</u> |
| _____ | <input type="radio"/> cattail | <input checked="" type="radio"/> naiad |
| _____ | <input type="radio"/> wild calla | <input checked="" type="radio"/> wild celery |
| _____ | <input type="radio"/> pickerel weed | <input type="radio"/> pipewort |
| _____ | <input checked="" type="radio"/> <u>Turtlehead</u> | <input type="radio"/> quillwort (Isoetes) |
| _____ | <input checked="" type="radio"/> <u>Pitcher Plant</u> | <input type="radio"/> shoregrass (Littorella) |
| _____ | _____ | <input type="radio"/> water lobelia |
| _____ | _____ | <input type="radio"/> water bulrush |
| _____ | _____ | <input checked="" type="radio"/> water marigold |
| _____ | _____ | <input type="radio"/> 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 None seen
 Threats/concerns: Existing milfoil population - EWM. There is a population of loons that is very friendly with humans - most likely someone is feeding them.

AIS Lake Survey Record

Surveyor(s) Andrea + Scott Date 9/9/12 Time on survey 4:45 - 5:30 pm

Lake Cyrus Corpolongo Smith Township _____ N Range _____ W Section _____

Weather Still + Clear

Boat launch description/condition No launch. No road access on MI side. We reached Cyrus by canoe across another lake

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) See GPS data

Water color Stained with tannins Turbidity Clear

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) ATV trail access on WI side

Shoreline development trail access

Connection to other waterbodies none

Potential for AIS establishment (low, medium, high, why, likely invaders) difficult access, not newly used.

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

Explain _____

LAKE FLORA QUICK CHECK CARD

Observer(s) Andrea + Scott Date 9/9/12 Time on survey 4:45 - 5:30 pm
 Lake Cyrus Corpolongo Smith Township _____ N Range _____ W Section _____ or County _____

General description of lake (setting, nutrient level, obvious concerns):
ATV or foot access only. Most of shoreline maple, ash, pine + spruce with some boggy portions. One boat was left by the shore on the WI side of the lake. Access from the MI side was very limited.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:
 Floating leaved plants (10 %) 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 checked="" type="radio"/> yellow water lily (spatterdock) | <input checked="" type="radio"/> 3-way sedge | <input type="radio"/> chara or nitella |
| <input checked="" type="radio"/> white water lily | <input type="radio"/> sedge (other than 3-way) | <input checked="" type="radio"/> watermilfoil : Eurasian, northern variable-leaf, other <u>farwell's</u> |
| <input checked="" type="radio"/> water shield | <input checked="" type="radio"/> rush | <input type="radio"/> coontail |
| <input checked="" type="radio"/> bur-reed | <input type="radio"/> wild rice | <input type="radio"/> water buttercup |
| <input checked="" type="radio"/> pondweed: <u>ribbonleaf</u> , largeleaf, floatingleaf, <u>variableleaf</u> , other | <input type="radio"/> grass (other than wild rice) | <input checked="" type="radio"/> bladderwort |
| <input type="radio"/> duckweed | <input checked="" type="radio"/> arrowhead | <input type="radio"/> elodea (waterweed) |
| <input type="radio"/> water knotweed | <input checked="" type="radio"/> spikerush | <input type="radio"/> pondweed: CLP, robbins, small, claspingleaf, flatstem, other |
| <input type="radio"/> water starwort | <input type="radio"/> water horsetail | <input type="radio"/> naiad |
| _____ | <input type="radio"/> iris | <input type="radio"/> wild celery |
| _____ | <input checked="" type="radio"/> cattail | <input type="radio"/> pipewort |
| _____ | <input type="radio"/> wild calla | <input type="radio"/> quillwort (Isoetes) |
| _____ | <input type="radio"/> pickerel weed | <input checked="" type="radio"/> shoregrass (Littorella) |
| _____ | _____ | <input type="radio"/> water lobelia |
| _____ | _____ | <input type="radio"/> water bulrush |
| _____ | _____ | <input checked="" type="radio"/> water marigold |
| _____ | _____ | <input type="radio"/> 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 none
 Threats/concerns: NO CONCERNS

AIS Lake Survey Record

Surveyor(s) Andrea and Scott Date 8/5/12 Time on survey 7-8:15 pm

Lake Coppolungo Smith Eel Township N Range W Section

Weather Clear, Light Breeze

Boat launch description/condition Gravel launch in good condition, easy access

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) See GPS data

Water color Slightly stained with tannins Turbidity Clear

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 and other recreational boating

Shoreline development Several cabins

Connection to other waterbodies none known

Potential for AIS establishment (low, medium, high, why, likely invaders) Heavily used lake, trash at launch suggests those that use it are not responsible.

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

Explain EWM or CEP would spread rapidly if introduced.

LAKE FLORA QUICK CHECK CARD

Observer(s) Andrea and Scott Corpolongo Date 8/5/12 Time on survey 7-8:15 pm
Smith

Lake Eel Township _____ N Range _____ W Section _____ or County _____

General description of lake (setting, nutrient level, obvious concerns):
High rocky slopes surround lake, Cedar, hemlock + maple present. Several cabins, all with a good buffer zone.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:
 Floating leaved plants (2 %) Emergents (2 %) Submergents (40 %)

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="radio"/> yellow water lily (spatterdock) | <input checked="" type="radio"/> 3-way sedge | <input checked="" type="radio"/> chara or nitella |
| <input type="radio"/> white water lily | <input type="radio"/> sedge (other than 3-way) | <input checked="" type="radio"/> watermilfoil : Eurasian, <u>northern</u> |
| <input checked="" type="radio"/> water shield | <input checked="" type="radio"/> rush | <input type="radio"/> variable-leaf, other |
| <input type="radio"/> bur-reed | <input type="radio"/> wild rice | <input type="radio"/> coontail |
| <input checked="" type="radio"/> pondweed: ribbonleaf, <u>largeleaf</u> | <input type="radio"/> grass (other than wild rice) | <input type="radio"/> water buttercup |
| <input type="radio"/> floatingleaf, variableleaf, other | <input checked="" type="radio"/> arrowhead | <input checked="" type="radio"/> bladderwort |
| <input type="radio"/> duckweed | <input checked="" type="radio"/> spikerush | <input type="radio"/> elodea (waterweed) |
| <input type="radio"/> water knotweed | <input type="radio"/> water horsetail | <input checked="" type="radio"/> pondweed: CLP, robbins, small, |
| <input type="radio"/> water starwort | <input checked="" type="radio"/> iris | <input type="radio"/> claspingleaf, flatstem, <u>other</u> |
| _____ | <input type="radio"/> cattail | <input checked="" type="radio"/> naiad |
| _____ | <input type="radio"/> wild calla | <input type="radio"/> wild celery |
| _____ | <input type="radio"/> pickerel weed | <input type="radio"/> pipewort |
| _____ | <input checked="" type="radio"/> <u>bur-reed</u> | <input type="radio"/> quillwort (Isoetes) |
| | | <input type="radio"/> shoregrass (Littorella) |
| | | <input type="radio"/> water lobelia |
| | | <input type="radio"/> water bulrush |
| | | <input type="radio"/> water marigold |
| | | <input type="radio"/> 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 None seen
 Threats/concerns: Nearby used lake with trash at boat launch

AIS Lake Survey Record

Surveyor(s) Andrea & Scott Corpolonso Date 7/15/12 Time on survey 6:15 - 7:00 pm

Lake Estes Township N Range W Section

Weather Clear and calm

Boat launch description/condition Sandy launch at the base of a hill near a main 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 - much lower than last survey.

Survey area description (also sketch on topo map) See GPS data

Water color colorless Turbidity clear

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

Shoreline development 2 homes, one with a mowed lawn to lake

Connection to other waterbodies none known

Potential for AIS establishment (low, medium, high, why, likely invaders) Several bait containers, beer cans, line packaging and other trash in/near lake. Irresponsible fishermen could introduce invasives.

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

Explain

LAKE FLORA QUICK CHECK CARD

Observer(s) Andrea + Scott Corpolongo Date 7/15/12 Time on survey 6:15 - 7:00 pm
 Lake Estes Township _____ N Range _____ W Section _____ or County _____

General description of lake (setting, nutrient level, obvious concerns):
Water level very low. Boat containers and other trash in lake.
Two adult loons and a lot of bluegill seen in the lake.
European swamp thistle at boat launch and around lake.

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

Floating leaved plants (21 %) Emergents (21 %) 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 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 checked="" type="checkbox"/> water shield | <input 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: 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"/> arrowhead | <input type="checkbox"/> bladderwort |
| <input type="checkbox"/> duckweed | <input type="checkbox"/> spikerush | <input type="checkbox"/> elodea (waterweed) |
| <input type="checkbox"/> water knotweed | <input checked="" 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 checked="" type="checkbox"/> cattail | <input type="checkbox"/> naiad |
| _____ | <input type="checkbox"/> wild calla | <input type="checkbox"/> wild celery |
| _____ | <input type="checkbox"/> pickerel weed | <input checked="" type="checkbox"/> pipewort |
| _____ | _____ | <input checked="" 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 None
 Threats/concerns: Trash and very low water levels

AIS Lake Survey Record

Surveyor(s) Andrew + Scott Corbett Date 9/3/12 Time on survey 6-6:30 pm

Lake Forest Township ___ N Range ___ W Section ___

Weather Clear and still

Boat launch description/condition No current launch. Lake only accessed on foot.

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) See GPS data

Water color Colorless Turbidity Clear

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) Very little access to lake

Shoreline development Old FS signs and trails, road access no longer usable.

Connection to other waterbodies none

Potential for AIS establishment (low, medium, high, why, likely invaders) difficult access

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

Explain _____

LAKE FLORA QUICK CHECK CARD

Observer(s) Andrea + Scott Cordova Date 9/3/12 Time on survey 6-6:30 pm

Lake Forrest Township _____ N Range _____ W Section _____ or County _____

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

Sandy substrate, oak, maple + pines surrounded lake. Many animal tracks at shoreline. Lake access was difficult due to a closed road. Pair of swans seen on lake.

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 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 type="checkbox"/> grass (other than wild rice) | <input type="checkbox"/> bladderwort |
| <input type="checkbox"/> duckweed | <input checked="" 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"/> iris | <input type="checkbox"/> wild celery |
| _____ | <input type="checkbox"/> cattail | <input checked="" type="checkbox"/> pipewort |
| _____ | <input type="checkbox"/> wild calla | <input checked="" type="checkbox"/> quillwort (Isoetes) |
| _____ | <input type="checkbox"/> pickerel weed | <input checked="" 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 None seen

Threats/concerns: No concerns

AIS Lake Survey Record

Surveyor(s) Andrea + Scott Cappelongo Date 7/15/12 Time on survey 4-5 pm

Lake Fuller Township _____ N Range _____ W Section _____

Weather still, partly cloudy

Boat launch description/condition No launch

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) See GPS data

Water color colorless Turbidity clear

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) Low use

Shoreline development trail passes by lake

Connection to other waterbodies none known

Potential for AIS establishment (low, medium, high, why, likely invaders) Little use

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

Explain Boats must be carried in

LAKE FLORA QUICK CHECK CARD

Observer(s) Scott and Andrea Capobongo Date 7/15/12 Time on survey 4-5 pm
 Lake Fuller Township _____ N Range _____ W Section _____ or County _____

General description of lake (setting, nutrient level, obvious concerns):
Healthy lake edged by bog, muck covers sandy substrate on west edge. loon and nesting wood duck seen.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:
 Floating leaved plants (15 %) Emergents (1 %) Submergents (15 %)

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) | <u>C</u> watermilfoil : Eurasian, northern variable-leaf, other <u>Bowell's</u> |
| <u>C</u> water shield | <u>C</u> rush | _____ coontail |
| <u>C</u> bur-reed | _____ wild rice | _____ water buttercup |
| _____ pondweed: ribbonleaf, largeleaf, floatingleaf, variableleaf, other | _____ grass (other than wild rice) | <u>T</u> bladderwort |
| _____ duckweed | _____ arrowhead | _____ elodea (waterweed) |
| _____ water knotweed | _____ spikerush | <u>T</u> pondweed: CLP, robbins, small, claspingleaf, flatstem, other |
| _____ water starwort | _____ water horsetail | _____ naiad |
| _____ _____ | <u>T</u> iris | _____ wild celery |
| _____ _____ | _____ cattail | <u>T</u> pipewort |
| _____ _____ | <u>C</u> wild calla | _____ quillwort (Isoetes) |
| _____ _____ | _____ pickerel weed | _____ shoregrass (Littorella) |
| | <u>O</u> <u>sunder</u> | _____ water lobelia |
| | <u>O</u> <u>cotton grass</u> | _____ 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 Some sections muck
 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 None seen
 Threats/concerns: No concerns

AIS Lake Survey Record

Surveyor(s) Andrea + Scott Date 8/13/12 Time on survey 1:45 - 2:45 pm

Lake Honeysuckle ^{Corpolongo Smith} Township _____ N Range _____ W Section _____

Weather Clear, light wind

Boat launch description/condition Two track leading to lake

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) See GPS data

Water color Slightly stained with Turbidity clear
tannins

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) Used by resident for boating + swimming
Also fished

Shoreline development One home with mowed lawn + beach area

Connection to other waterbodies One home connects to bluebell lake

Potential for AIS establishment (low, medium, high, why, likely invaders) Mainly used by resident

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

Explain _____

LAKE FLORA QUICK CHECK CARD

Observer(s) Andrea Corgolouzo + Scott Smith Date 8/13/12 Time on survey 1:45 - 2:45 pm
 Lake Honeysuckle Township _____ N Range _____ W Section _____ or County _____

General description of lake (setting, nutrient level, obvious concerns):
One home with shoreline on honeysuckle + bluebell with mowed lawn and a sandy beach to the shoreline. Remaining shore edge wooded, fir and alder with mixed woods beyond.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:
 Floating leaved plants (3 %) 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="radio"/> yellow water lily (spatterdock) | <input checked="" type="radio"/> 3-way sedge | <input type="radio"/> chara or nitella |
| <input type="radio"/> white water lily | <input checked="" type="radio"/> sedge (other than 3-way) | <input checked="" type="radio"/> watermilfoil : Eurasian, northern variable-leaf, other farwells |
| <input checked="" type="radio"/> water shield | <input checked="" type="radio"/> rush | <input checked="" type="radio"/> coontail |
| <input checked="" type="radio"/> bur-reed | <input type="radio"/> wild rice | <input type="radio"/> water buttercup |
| <input checked="" type="radio"/> pondweed: ribbonleaf, largeleaf, floatingleaf, variableleaf, <u>other</u> | <input type="radio"/> grass (other than wild rice) | <input checked="" type="radio"/> bladderwort |
| <input type="radio"/> duckweed | <input checked="" type="radio"/> arrowhead | <input type="radio"/> elodea (waterweed) |
| <input type="radio"/> water knotweed | <input type="radio"/> spikerush | <input type="radio"/> pondweed: CLP, robbins, small, claspingleaf, flatstem, other |
| <input type="radio"/> water starwort | <input type="radio"/> water horsetail | <input type="radio"/> naiad |
| _____ | <input type="radio"/> iris | <input type="radio"/> wild celery |
| _____ | <input checked="" type="radio"/> cattail | <input checked="" type="radio"/> pipewort |
| _____ | <input checked="" type="radio"/> wild calla | <input checked="" type="radio"/> quillwort (Isoetes) |
| _____ | <input type="radio"/> pickerel weed | <input type="radio"/> shoregrass (Littorella) |
| _____ | _____ | <input type="radio"/> water lobelia |
| _____ | _____ | <input type="radio"/> water bulrush |
| _____ | _____ | <input type="radio"/> water marigold |
| _____ | _____ | <input type="radio"/> 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 none seen
 Threats/concerns: no major concerns

AIS Lake Survey Record

Surveyor(s) Andrea + Scott Date 9/3/12 Time on survey 3:15 - 4:15 pm

Lake Killdeer ^{Corpolongo Smith} Township _____ N Range _____ W Section _____

Weather Still + Clear

Boat launch description/condition No real launch, sandy canoe access 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) See GPS data

Water color Colorless Turbidity clear

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, lake possibly trout stocked.

Shoreline development Slight boat launch with parking area

Connection to other waterbodies none

Potential for AIS establishment (low, medium, high, why, likely invaders) low, low nutrient
bladderwort dominant species

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

Explain _____

LAKE FLORA QUICK CHECK CARD

Observer(s) Andrea + Scott Cospolony Smith Date 9/3/12 Time on survey 3:15 - 4:15 pm
Lake Killdeer Township _____ N Range _____ W Section _____ or County _____

General description of lake (setting, nutrient level, obvious concerns):
Lake ringed by pine + tamarack w/ patches of sphagnum.
Almost all of the visible lake bottom was covered with
large purple bladderwort.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:
Floating leaved plants (CL %) Emergents (2 %) Submergents (60 %)

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 checked="" 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 checked="" type="checkbox"/> 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 type="checkbox"/> arrowhead | <input checked="" type="checkbox"/> bladderwort - <u>Large Purple</u> |
| <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 checked="" type="checkbox"/> iris | <input type="checkbox"/> claspingleaf, flatstem <u>other</u> |
| _____ | <input type="checkbox"/> cattail | <input type="checkbox"/> naiad |
| _____ | <input checked="" type="checkbox"/> wild calla | <input checked="" type="checkbox"/> wild celery |
| _____ | <input type="checkbox"/> pickerel weed | <input type="checkbox"/> pipewort |
| _____ | _____ | <input checked="" 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 None seen
Threats/concerns: No concerns

AIS Lake Survey Record

Surveyor(s) Andrea Cordeiro & Scott Smith Date 9/10/12 Time on survey 11 - 11:30 am

Lake Cornelia Township _____ N Range _____ W Section _____

Weather Clear with a steady light wind

Boat launch description/condition Closed ^{to the lake} track with no boat launch

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) See GPS data

Water color Stained with tannins Turbidity clear

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 and duck hunting

Shoreline development None

Connection to other waterbodies Unknown

Potential for AIS establishment (low) (medium, high, why, likely invaders) difficult access, low use

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

Explain infrequently used

LAKE FLORA QUICK CHECK CARD

Observer(s) Andrea + Scott Corobongo Smith Date 9/10/12 Time on survey 11 - 11:30 am

Lake Cornelia Township _____ N Range _____ W Section _____ or County _____

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

Ringed by bog with mixed woods beyond. Very active beaver population (saw 5 lodges and several beavers)

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

Floating leaved plants (7 %) Emergents (5 %) 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 checked="" type="checkbox"/> 3-way sedge | <input type="checkbox"/> chara or nitella |
| <input type="checkbox"/> white water lily | <input checked="" type="checkbox"/> sedge (other than 3-way) | <input checked="" type="checkbox"/> watermilfoil: Eurasian, northern variable-leaf, other <u>farwell's</u> |
| <input checked="" type="checkbox"/> water shield | <input checked="" 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, <u>largeleaf</u> | <input type="checkbox"/> grass (other than wild rice) | <input checked="" type="checkbox"/> bladderwort |
| <input type="checkbox"/> floatingleaf, variableleaf, other | <input checked="" 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 checked="" type="checkbox"/> water horsetail | <input type="checkbox"/> naiad |
| <input type="checkbox"/> water starwort | <input checked="" type="checkbox"/> iris | <input type="checkbox"/> wild celery |
| _____ | <input type="checkbox"/> cattail | <input checked="" type="checkbox"/> pipewort |
| _____ | <input checked="" type="checkbox"/> wild calla | <input type="checkbox"/> quillwort (Isoetes) |
| _____ | <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 None

Threats/concerns: No concerns

AIS Lake Survey Record

Surveyor(s) Andrea + Scott Capobongo Smith Date 9/3/12 Time on survey 1:30 - 2:30 pm

Lake Lake on 3 Township _____ N Range _____ W Section _____

Weather Still and Overcast

Boat launch description/condition Canoe launch only with camping area

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) See GPS data

Water color Colorless Turbidity Clear

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 - several lures in water near launch

Shoreline development Boat launch with camping area, 5 homes

Connection to other waterbodies none

Potential for AIS establishment (low, medium, high, why, likely invaders) Not a lot of vegetation

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

Explain _____

LAKE FLORA QUICK CHECK CARD

Observer(s) Andersen + Scott Corpolongo Date 9/13/12 Time on survey 1:30 - 2:30 pm
 Lake Lake on 3 Township ___ N Range ___ W Section ___ or County ___

General description of lake (setting, nutrient level, obvious concerns):
Edged by pine forest, except around homes.

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 checked="" type="radio"/> yellow water lily (spatterdock) | <input checked="" type="radio"/> 3-way sedge | ___ chara or nitella |
| ___ white water lily | <input checked="" type="radio"/> sedge (other than 3-way) | ___ watermilfoil : Eurasian, northern |
| ___ water shield | <input checked="" type="radio"/> rush | ___ variable-leaf, other |
| <input checked="" type="radio"/> bur-reed | ___ wild rice | ___ coontail |
| ___ pondweed: ribbonleaf, largeleaf, | ___ grass (other than wild rice) | ___ water buttercup |
| floatingleaf, variableleaf, other | ___ arrowhead | ___ bladderwort |
| ___ duckweed | <input checked="" type="radio"/> spikerush | ___ elodea (waterweed) |
| ___ water knotweed | <input checked="" type="radio"/> water horsetail | ___ pondweed: CLP, robbins, small, |
| ___ water starwort | ___ iris | claspingleaf, flatstem, other |
| ___ | ___ cattail | <input checked="" type="radio"/> naiad |
| ___ | ___ wild calla | ___ wild celery |
| ___ | ___ pickerel weed | ___ pipewort |
| ___ | ___ | <input checked="" type="radio"/> quillwort (Isoetes) |
| ___ | ___ | <input checked="" type="radio"/> 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 None
 Threats/concerns: No concerns

AIS Lake Survey Record

Surveyor(s) Andrea + Scott Corobougo Smith Date 9/10/12 Time on survey 10-10:30 am

Lake Little Langford Township N Range W Section

Weather Clear and still

Boat launch description/condition Overgrown two track to the lake, no launch

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) See GPS data

Water color stained with tannins Turbidity Slightly turbid with 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) Some fishing

Shoreline development No development, some two track access

Connection to other waterbodies unknown

Potential for AIS establishment (low) medium, high, why, likely invaders) Not heavily used

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

Explain

LAKE FLORA QUICK CHECK CARD

Observer(s) Andrea + Scott Cordeiro Smith Date 9/10/12 Time on survey 10-10:30 am

Lake Little Langford Township _____ N Range _____ W Section _____ or County _____

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

Very shallow, warm water. Much of the lake was edged by a sphagnum bog.

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

Floating leaved plants (30 %) Emergents (5 %) 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="radio"/> yellow water lily (spatterdock) | <input checked="" type="radio"/> 3-way sedge | <input type="radio"/> chara or nitella |
| <input type="radio"/> white water lily | <input checked="" type="radio"/> sedge (other than 3-way) | <input checked="" type="radio"/> watermilfoil : Eurasian, northern variable-leaf, other <u>farwell's</u> |
| <input checked="" type="radio"/> water shield | <input type="radio"/> rush | <input type="radio"/> coontail |
| <input checked="" type="radio"/> bur-reed | <input type="radio"/> wild rice | <input type="radio"/> water buttercup |
| <input checked="" type="radio"/> pondweed: <u>ribbonleaf</u> <u>largeleaf</u> | <input checked="" type="radio"/> grass (other than wild rice) | <input type="radio"/> bladderwort |
| <input type="radio"/> floatingleaf, variableleaf, other | <input type="radio"/> arrowhead | <input type="radio"/> elodea (waterweed) |
| <input type="radio"/> duckweed | <input type="radio"/> spikerush | <input type="radio"/> pondweed: CLP, robbins, small, claspingleaf, flatstem, other |
| <input checked="" type="radio"/> water knotweed | <input type="radio"/> water horsetail | <input type="radio"/> naiad |
| <input type="radio"/> water starwort | <input checked="" type="radio"/> iris | <input type="radio"/> wild celery |
| _____ | <input checked="" type="radio"/> cattail | <input type="radio"/> pipewort |
| _____ | <input type="radio"/> wild calla | <input type="radio"/> quillwort (Isoetes) |
| _____ | <input type="radio"/> pickerel weed | <input type="radio"/> shoregrass (Littorella) |
| _____ | _____ | <input type="radio"/> water lobelia |
| _____ | _____ | <input type="radio"/> water bulrush |
| _____ | _____ | <input type="radio"/> water marigold |
| _____ | _____ | <input type="radio"/> 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 None
 Threats/concerns: No concerns

AIS Lake Survey Record

Surveyor(s) Andrea + Scott Corpolongo Smith Date 9/9/12 Time on survey 6-7:30 pm

Lake Little Oxbow Township _____ N Range _____ W Section _____

Weather Clear with a steady wind

Boat launch description/condition Paved launch with parking and picnic area

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) See GPS data

Water color Spurred with tannins Turbidity Clear

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) recreational boating / fishing

Shoreline development Several homes and cabins, dock with large parking area.

Connection to other waterbodies Unknown

Potential for AIS establishment (low, medium, high, why, likely invaders) fair amount of use, EWM or CLP could spread if introduced.

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

Explain _____

LAKE FLORA QUICK CHECK CARD

Observer(s) Andrea + Scott Capobianco Smith Date 9/9/12 Time on survey 6-7:30 pm

Lake Little Oxbow Township _____ N Range _____ W Section _____ or County _____

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

Lake surrounded by mixed woods that included cedar, popples, pines, maple and birch. Also several homes and cabins, many with no buffer. Saw an adult loon with one juvenile.

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

Floating leaved plants (10 %) Emergents (15 %) 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.

- | | | |
|---|---------------------------------------|--|
| <u>O</u> yellow water lily (spatterdock) | <u>C</u> 3-way sedge | ___ chara or nitella |
| <u>C</u> white water lily | <u>C</u> sedge (other than 3-way) | ___ watermilfoil : Eurasian, northern variable-leaf, other |
| <u>D</u> water shield | <u>C</u> rush | ___ coontail |
| <u>C</u> bur-reed | ___ wild rice | ___ water buttercup |
| <u>C</u> pondweed: <u>ribbonleaf</u> , <u>largeleaf</u> , floatingleaf, variableleaf, other | <u>C</u> grass (other than wild rice) | <u>D</u> bladderwort |
| ___ duckweed | ___ arrowhead | ___ elodea (waterweed) |
| ___ water knotweed | <u>D</u> spikerush | <u>C</u> pondweed: CLP, robbins, <u>small</u> |
| ___ water starwort | <u>D</u> water horsetail | ___ claspingleaf, flatstem, other |
| _____ | ___ iris | ___ naiad |
| _____ | ___ cattail | ___ wild celery |
| _____ | ___ wild calla | <u>I</u> pipewort |
| _____ | <u>C</u> pickerel weed | <u>I</u> quillwort (Isoetes) |
| _____ | <u>I</u> turtle head | <u>I</u> shoregrass (Littorella) |
| _____ | _____ | ___ water lobelia |
| _____ | _____ | ___ water bulrush |
| _____ | _____ | <u>D</u> 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 None
 Threats/concerns: No concerns

AIS Lake Survey Record

Surveyor(s) Scott & Andrea Corpolongo Smith Date 8/13 Time on survey 9:30 - 10:30 am
w/ Ian Shackleton

Lake MOCRAINE Township _____ N Range _____ W Section _____

Weather Still and clear

Boat launch description/condition Well marked launch with easy access in good condition.

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) See GPS data

Water color stained with tannins Turbidity Some 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) fishery, used by residents and by public.

Shoreline development Several homes and cabins, some new construction

Connection to other waterbodies None seen

Potential for AIS establishment (low, medium, high, why, likely invaders) If introduced CLP or GYM could spread rapidly.

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

Explain Every other year would be sufficient.

LAKE FLORA QUICK CHECK CARD

Observer(s) Andrea + Scott Copeland Date 8/13/12 Time on survey 9:30 - 10:30 am
w/ Tim Shackelford

Lake Morraine Township _____ N Range _____ W Section _____ or County _____

General description of lake (setting, nutrient level, obvious concerns):
Several home and cabins on lake, some new construction with a lot of mulch.

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

Floating leaved plants (%) Emergents (%) 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 checked="" type="checkbox"/> yellow water lily (spatterdock) | <input checked="" type="checkbox"/> 3-way sedge | <input checked="" 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 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 checked="" type="checkbox"/> pondweed: ribbonleaf, <u>largeleaf</u> | <input type="checkbox"/> grass (other than wild rice) | <input checked="" type="checkbox"/> bladderwort |
| <input type="checkbox"/> floatingleaf, variableleaf, <u>other</u> | <input checked="" type="checkbox"/> arrowhead | <input type="checkbox"/> elodea (waterweed) |
| <input checked="" type="checkbox"/> duckweed | <input type="checkbox"/> spikerush | <input checked="" type="checkbox"/> pondweed: CLP, robbins, small, claspingleaf, flatstem, other |
| <input checked="" type="checkbox"/> water knotweed | <input checked="" type="checkbox"/> water horsetail | <input checked="" type="checkbox"/> naiad |
| <input type="checkbox"/> water starwort | <input checked="" type="checkbox"/> iris | <input checked="" type="checkbox"/> wild celery |
| _____ | <input type="checkbox"/> cattail | <input checked="" type="checkbox"/> pipewort |
| _____ | <input type="checkbox"/> wild calla | <input type="checkbox"/> quillwort (Isoetes) |
| _____ | <input checked="" type="checkbox"/> pickerel weed | <input type="checkbox"/> shoregrass (Littorella) |
| _____ | _____ | <input type="checkbox"/> water lobelia |
| _____ | _____ | <input type="checkbox"/> water bulrush |
| _____ | _____ | <input checked="" 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 near the kunch

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 None seen

Threats/concerns: No major concerns

AIS Lake Survey Record

Surveyor(s) Andrea + Scott Corpolungo Date 8/12/12 Time on survey 2 pm - 3:30 pm

Lake Presque Isle Florage Township Smith N Range W Section

Weather Still, overcast

Boat launch description/condition Good condition on main road, picnic area and restroom heavily used. Pulled two kelpweed near dam.

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) See GPS data

Water color Colorless Turbidity Clear

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) Park is heavily used, duck hunting and fishing likely

Shoreline development Park at dam

Connection to other waterbodies This is a dammed section of Presque Isle River, Fed by Blueberry Creek.

Potential for AIS establishment (low, medium, high, why, likely invaders) Native crayfish present. Lake is heavily used. If AIS were introduced they could establish rapidly.

Do you think an annual AIS check is needed or could the interval be less frequent? Every other year would probably be enough to recognize an establishing population.

Explain

LAKE FLORA QUICK CHECK CARD

Observer(s) Andrea + Scott Corpolongo Date 8/12/12 Time on survey 2pm - 3:30 pm
 Lake Presque Isle Flowage ^{South} Township _____ N Range _____ W Section _____ or County _____

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

Dammed section of Presque Isle River, a lot of plant growth in and near water. A lot of wild life, kingfishers, ducks, fish, turtles etc. Present.

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

Floating leaved plants (80 %) Emergents (20 %) Submergents (90 %)

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, <u>northern</u> |
| <input type="checkbox"/> water shield | <input 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 <u>ribbonleaf</u> , <u>largeleaf</u> | <input type="checkbox"/> grass (other than wild rice) | <input type="checkbox"/> water buttercup |
| <input type="checkbox"/> <u>floatingleaf</u> , <u>variableleaf</u> , other | <input type="checkbox"/> arrowhead | <input type="checkbox"/> bladderwort |
| <input checked="" 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, claspingleaf, flatstem, other |
| <input type="checkbox"/> water starwort | <input type="checkbox"/> iris | <input type="checkbox"/> naiad |
| _____ | <input type="checkbox"/> cattail | <input type="checkbox"/> wild celery |
| _____ | <input type="checkbox"/> wild calla | <input type="checkbox"/> pipewort |
| _____ | <input type="checkbox"/> pickerel weed | <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 |
| _____ | _____ | <input checked="" type="checkbox"/> <u>acorus Calamus</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 Two spotted knapweed pulled from near the dam.
 Threats/concerns: No concerns

AIS Lake Survey Record

Surveyor(s) Andrea + Scott Corpolongo Date 9/9/12 Time on survey 1:20 - 1:50 pm

Lake Range Township _____ N Range _____ W Section _____

Weather Clear with a light breeze

Boat launch description/condition Two track off of main road to lake, no actual launch.

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) See GPS data

Water color Stained with tannins Turbidity Clear

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 and duck hunting

Shoreline development two track to lake

Connection to other waterbodies unknown

Potential for AIS establishment (low medium, high, why, likely invaders) Not heavily used

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

Explain _____

LAKE FLORA QUICK CHECK CARD

Observer(s) Andrew + Scott Campbell Smith Date 9/9/12 Time on survey 1:20 - 1:50 pm

Lake Range Township N Range W Section or County

General description of lake (setting, nutrient level, obvious concerns):
Lake surrounded by pine forest. Swans and an active beaver lodge present.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:
 Floating leaved plants (20 %) Emergents (5 %) 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 checked="" type="checkbox"/> 3-way sedge | <input type="checkbox"/> chara or nitella |
| <input checked="" type="checkbox"/> white water lily | <input checked="" 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"/> Crush | <input type="checkbox"/> coontail |
| <input type="checkbox"/> 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 checked="" type="checkbox"/> bladderwort |
| <input type="checkbox"/> duckweed | <input checked="" type="checkbox"/> arrowhead | <input type="checkbox"/> elodea (waterweed) |
| <input type="checkbox"/> water knotweed | <input checked="" type="checkbox"/> spikerush | <input checked="" 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 checked="" 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 None
 Threats/concerns: No concerns

AIS Lake Survey Record

Surveyor(s) Andrew + Scott Corpolongo Date 7/30/12 Time on survey 1:45 - 3:00

Lake 6 mile Township ___ N Range ___ W Section ___

Weather Overcast with a light Breeze

Boat launch description/condition We accessed the lake via a gravel from 38

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) See GPS Data

Water color colorless Turbidity Clear

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

Shoreline development two homes, one with cleared land to the shoreline.

Connection to other waterbodies none known

Potential for AIS establishment (low, medium, high, why, likely invaders) High use but public access is limited (no launch) so most of the use is probably from residents who keep their boats in 6 mile.

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

Explain _____

LAKE FLORA QUICK CHECK CARD

Observer(s) Andrew + Scott Corpolouso Date 7/30/12 Time on survey 1:45 - 3:00
 Smith
 Lake 6 mile Township _____ N Range _____ W Section _____ or County _____

General description of lake (setting, nutrient level, obvious concerns):
Near 38. Lake edged with bog. Some sandy and some mucky substrate. two homes on lake.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:
 Floating leaved plants (2 %) 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 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 checked="" 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 type="checkbox"/> bur-reed | <input type="checkbox"/> wild rice | <input type="checkbox"/> water buttercup |
| <input checked="" type="checkbox"/> pondweed: ribbonleaf, <u>largeleaf</u> | <input type="checkbox"/> grass (other than wild rice) | <input checked="" type="checkbox"/> bladderwort |
| <input type="checkbox"/> floatingleaf, variableleaf, <u>other</u> | <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, flatstem, <u>other</u> |
| <input type="checkbox"/> water knotweed | <input type="checkbox"/> water horsetail | <input type="checkbox"/> naiad |
| <input type="checkbox"/> water starwort | <input checked="" type="checkbox"/> iris | <input type="checkbox"/> wild celery |
| _____ | <input type="checkbox"/> cattail | <input checked="" type="checkbox"/> pipewort |
| _____ | <input type="checkbox"/> wild calla | <input checked="" type="checkbox"/> quillwort (Isoetes) |
| _____ | <input type="checkbox"/> pickerel weed | <input type="checkbox"/> shoregrass (Littorella) |
| _____ | <input checked="" type="checkbox"/> cranberry | <input type="checkbox"/> water lobelia |
| _____ | <input checked="" type="checkbox"/> Menyanthes | <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 European Swamp Thistle and Buckthorn

Threats/concerns: near boat launch European Swamp thistle and Buckthorn could spread from boat launch area. See weed report forms

AIS Lake Survey Record

Surveyor(s) Andrew + Scott Corobuso Smith Date 9/10/12 Time on survey 12:15 - 1 pm

Lake Spider Township _____ N Range _____ W Section _____

Weather Clear, light wind

Boat launch description/condition _____

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) See GPS data

Water color Stained with tannins Turbidity Clear

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, recreational boating

Shoreline development Three homes and several camps

Connection to other waterbodies River

Potential for AIS establishment (low, medium, high, why, likely invaders) High use, CLP or Ewm could establish if introduced.

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

Explain _____

LAKE FLORA QUICK CHECK CARD

Observer(s) Andrea + Scott Capolongo Swk Date 9/10/12 Time on survey 12:15 - 1:00 pm

Lake Spider Township _____ N Range _____ W Section _____ or County _____

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

Three homes and several camps on lake. Lake ringed by boggy land with tamarack, spruce & fir.

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

Floating leaved plants (20%) Emergents (3%) 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 checked="" type="checkbox"/> 3-way sedge | <input type="checkbox"/> chara or nitella |
| <input type="checkbox"/> white water lily | <input checked="" 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, largeleaf, floatingleaf, variableleaf, other | <input checked="" 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 checked="" type="checkbox"/> water knotweed | <input checked="" type="checkbox"/> spikerush | <input type="checkbox"/> pondweed: CLP, robbins, small, claspingleaf, flatstem, other |
| <input type="checkbox"/> water starwort | <input checked="" type="checkbox"/> water horsetail | <input type="checkbox"/> naiad |
| _____ | <input type="checkbox"/> iris | <input type="checkbox"/> wild celery |
| _____ | <input type="checkbox"/> cattail | <input checked="" type="checkbox"/> pipewort |
| _____ | <input type="checkbox"/> wild calla | <input type="checkbox"/> quillwort (Isoetes) |
| _____ | <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 None

Threats/concerns: No concerns

AIS Lake Survey Record

Surveyor(s) Andrea & Scott Corpolongo Date 8/13/12 Time on survey 5:30 - 6:15 pm
Smith

Lake Stuesser Township _____ N Range _____ W Section _____

Weather Light wind, clear

Boat launch description/condition Easy access with a large rocky area. Dirt launch with heavy damage - possibly due to prop 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) See GPS data

Water color stained with tannins Turbidity clear

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, recreational boating

Shoreline development 2 homes with docks, picnic area by boat launch

Connection to other waterbodies none known

Potential for AIS establishment ((low), medium, high, why, likely invaders) Very little aquatic life present, AIS unlikely to thrive if introduced.

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

Explain _____

LAKE FLORA QUICK CHECK CARD

Observer(s) Andrea + Scott Corpolongo Date 8/13/12 Time on survey 5:30 - 6:15
 Lake Stuesser Township _____ N Range _____ W Section _____ or County _____

General description of lake (setting, nutrient level, obvious concerns):
Very little aquatic plant life. Red pine planting along much of shoreline. Boat launch seems to show damage from something, possibly prop wash.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:
 Floating leaved plants (4 %) Emergents (4 %) Submergents (4 %)

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 variable-leaf, other |
| ___ water shield | <u>C</u> rush | ___ coontail |
| ___ bur-reed | ___ wild rice | ___ water buttercup |
| <u>O</u> pondweed: ribbonleaf, largeleaf, floatingleaf, variableleaf, <u>other</u> | ___ grass (other than wild rice) | ___ bladderwort |
| ___ duckweed | <u>O</u> arrowhead | ___ elodea (waterweed) |
| ___ water knotweed | ___ spikerush | ___ pondweed: CLP, robbins, small, claspingleaf, flatstem, other |
| ___ water starwort | <u>O</u> water horsetail | ___ naiad |
| ___ _____ | <u>T</u> iris | <u>D</u> wild celery |
| ___ _____ | <u>T</u> cattail | <u>C</u> pipewort |
| ___ _____ | ___ wild calla | <u>C</u> quillwort (Isoetes) |
| ___ _____ | ___ pickerel weed | <u>O</u> shoregrass (Littorella) |
| ___ _____ | <u>O</u> <u>Bonaset</u> | ___ 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 Reed Canary + Knotweed near
 Threats/concerns: boat launch See Weed forms

AIS Lake Survey Record

Surveyor(s) Andrew + Scott Corpolongo Suth Date 9/9/12 Time on survey 2:30 - 3:15

Lake Summit Township _____ N Range _____ W Section _____

Weather Clear with light wind

Boat launch description/condition walk from road, no motor access possible

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) See GPS data

Water color Stained with tannins Turbidity Clear

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

Shoreline development None

Connection to other waterbodies Connects to Range Lake

Potential for AIS establishment (low medium, high, why, likely invaders) Not high use, AIS not likely to flourish here.

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

Explain _____

LAKE FLORA QUICK CHECK CARD

Observer(s) Andrea + Scott Corbridge Date 9/9/12 Time on survey 2:30-3:15 pm
 Lake Summit Township _____ N Range _____ W Section _____ or County _____

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

Much of shoreline is a sphagnum bog with tanarack. Remaining shoreline is mixed woods including spruce, poplar, maple, red + white pine

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

Floating leaved plants (15%) Emergents (15%) 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 checked="" type="checkbox"/> 3-way sedge | <input type="checkbox"/> chara or nitella |
| <input checked="" type="checkbox"/> white water lily | <input checked="" type="checkbox"/> sedge (other than 3-way) | <input checked="" type="checkbox"/> watermilfoil : Eurasian, <u>northern</u> |
| <input checked="" 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: ribbonleaf, largeleaf, floatingleaf, variableleaf, other | <input checked="" 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 checked="" type="checkbox"/> water knotweed | <input checked="" type="checkbox"/> spikerush | <input type="checkbox"/> elodea (waterweed) |
| <input type="checkbox"/> water starwort | <input type="checkbox"/> water horsetail | <input type="checkbox"/> pondweed: CLP, robbins, small, claspingleaf, flatstem, other |
| _____ | <input type="checkbox"/> iris | <input type="checkbox"/> naiad |
| _____ | <input checked="" type="checkbox"/> cattail | <input type="checkbox"/> wild celery |
| _____ | <input checked="" type="checkbox"/> wild calla | <input type="checkbox"/> pipewort |
| _____ | <input type="checkbox"/> pickerel weed | <input type="checkbox"/> quillwort (Isoetes) |
| _____ | <input checked="" type="checkbox"/> <u>Pitcher Plant</u> | <input checked="" type="checkbox"/> shoregrass (Littorella) |
| _____ | _____ | <input type="checkbox"/> water lobelia |
| _____ | _____ | <input type="checkbox"/> water bulrush |
| _____ | _____ | <input checked="" 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 None

Threats/concerns: No concerns

AIS Lake Survey Record

Surveyor(s) Andrea + Scott Carpolongo Date 8/12/12 Time on survey 5 pm - 6 pm

Lake Thrush Township _____ N Range _____ W Section _____

Weather Overcast, still

Boat launch description/condition Asphalt launch in good condition with easy access

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) See GPS data

Water color Stained with tannins Turbidity Clear

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) _____

Shoreline development Boat launch

Connection to other waterbodies none known

Potential for AIS establishment (low medium, high, why, likely invaders) not heavily used

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

Explain _____

LAKE FLORA QUICK CHECK CARD

Observer(s) Andrea + Scott Carepolungo Date 8/12/12 Time on survey 5 pm - 6 pm
Smith

Lake Thrush Township _____ N Range _____ W Section _____ or County _____

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

Boagy at southwest edge. Eastern edge forested with spruce, cedar, pines and some hardwoods.

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

Floating leaved plants (5 %) Emergents (5 %) 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 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 checked="" type="checkbox"/> watermilfoil : Eurasian, northern variable-leaf, other <u>Arnold's</u> |
| <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 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"/> pondweed: CLP, robbins, small, <u>claspingleaf</u> , <u>flatstem</u> , other |
| <input type="checkbox"/> water starwort | <input type="checkbox"/> water horsetail | <input type="checkbox"/> naiad |
| _____ | <input type="checkbox"/> iris | <input type="checkbox"/> wild celery |
| _____ | <input type="checkbox"/> cattail | <input checked="" type="checkbox"/> pipewort |
| _____ | <input type="checkbox"/> wild calla | <input checked="" type="checkbox"/> quillwort (Isoetes) |
| _____ | <input type="checkbox"/> pickerel weed | <input type="checkbox"/> shoregrass (Littorella) |
| _____ | <input checked="" type="checkbox"/> Pitcher Plant | <input type="checkbox"/> water lobelia |
| _____ | <input checked="" type="checkbox"/> Bone set | <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 None Seen
 Threats/concerns: No concerns